



AGENDA

City Council Joint Study Session with Planning Commission

6:30 PM - Tuesday, October 9, 2018

City Hall Council Chambers, Sammamish, WA

Page		Estimated Time
	CALL TO ORDER	6:30 pm
	PUBLIC COMMENT	6:35 pm
	<p><i>Note: This is an opportunity for the public to address the Council. Three-minutes limit per person or five-minutes if representing the official position of a recognized community organization. If you would like to show a video or PowerPoint, it must be submitted or emailed by 5 pm, the end of the business day, to the City Clerk, Melonie Anderson at manderson@sammamish.us. Please be aware that Council meetings are videotaped and available to the public.</i></p>	
	TOPICS	7:00 pm
3 - 115	1. Discussion with Planning Commission: Sammamish Home Grown: A Plan for People, Housing, and Community View Agenda Item	
116 - 202	2. Discussion: Urban Forest Management Plan View Agenda Item	
	EXECUTIVE SESSION – IF NECESSARY	
	REQUEST FOR FUTURE AGENDA ITEMS	9:45 pm
	ADJOURNMENT	10:00 pm

City Council meetings are wheelchair accessible. American Sign Language (ASL) interpretation is available upon request. Please phone (425) 295-0500 at least 48 hours in advance. Assisted Listening Devices are also available upon request.

Agenda Bill
 City Council Joint Meeting
 October 09, 2018



SUBJECT:	A joint study session with the Planning Commission to discuss Sammamish Home Grown: A Plan for People, Housing, and Community.																		
DATE SUBMITTED:	October 01, 2018																		
DEPARTMENT:	Community Development																		
NEEDED FROM COUNCIL:	<input type="checkbox"/> Action <input type="checkbox"/> Direction <input checked="" type="checkbox"/> Informational																		
RECOMMENDATION:	N/A																		
EXHIBITS:	1. Exhibit 1 - Planning Commission Recommendation 2. Exhibit 2 - Sammamish Home Grown - A Plan for People, Housing, and Community 3. Exhibit 3 - Housing Strategy Update Presentation 09-04-2018 4. Exhibit 4 - Q&A Matrix 5. Exhibit 5 - City Council Amendment Matrix																		
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<input checked="" type="checkbox"/>	High Performing Government	<input type="checkbox"/>	Culture & Recreation																
<input type="checkbox"/>	Environmental Health & Protection	<input type="checkbox"/>	Financial Sustainability																

NEEDED FROM COUNCIL:
 A discussion with the Planning Commission about Sammamish Home Grown: A Plan for People, Housing, and Community.

KEY FACTS AND INFORMATION SUMMARY:

Summary Statement

The purpose of the 2018 Housing Strategy "Sammamish Home Grown" is to guide the implementation of the goals and policies adopted in the Housing Element of the 2015 Comprehensive Plan. Housing Element policy H.6.1 provides direction for the City to adopt a Housing Strategy to outline benchmarks, steps and milestones for the implementation of this element. The Housing Strategy has not been updated since 2006. After the Housing Element was amended in 2016 to respond to a Growth Management Hearing Board compliance order, the City Council directed staff to commence work on updating the Housing Strategy.

The public process for Sammamish Home Grown began in September 2017, with the Planning Commission acting as the lead advisory body and the Human Services Commission providing additional input related to housing affordability and special needs housing. City staff and A Regional Coalition for Housing (ARCH) staff assisted these Commissions with developing a draft framework for the strategy utilizing existing planning documents as well as monitoring other planning efforts currently underway.

Public outreach and engagement in identifying Sammamish's housing needs and priorities were critical components in the drafting of Sammamish Home Grown. These efforts included an open-house event, a community-wide survey, a project website, a panel discussion hosted by the Planning Commission and stakeholder interviews and surveys. Additionally, Planning Commission meetings were held regularly to review specific elements of the strategy, allow staff to provide updates and solicit feedback on different components, and ultimately consider a recommendation to send to City Council.

Sammamish Home Grown is focused on prioritized strategies corresponding to each goal in the Housing Element. While many strategies were considered, the top strategies were selected and prioritized based on community input, timeliness, and anticipated effectiveness. Once finalized and approved by City Council, the top strategies in Sammamish Home Grown will be incorporated into current and future work programs for further evaluation and implementation as appropriate.

On [September 4, 2018](#), staff presented Sammamish Home Grown and the top strategies as recommended by the Planning Commission (Exhibit 3). Shortly thereafter, City Council opened the Public Hearing on September 18, 2018 to consider a Resolution approving Sammamish Home Grown, leaving the hearing open to a date certain of November 6, 2018. Additionally, City Council invited the Planning Commission to a joint work session on October 9, 2018. This work session will allow City Council to discuss Sammamish Home Grown with the Planning Commission, better understand the process and the recommended top strategies, and to answer any questions they may have.

Next Steps

All questions received by Council prior to the October 9, 2018 work session have been integrated into a Question & Answer Matrix (Exhibit 4). Questions asked by Council during and after the work session will be added to the matrix. Additionally, a Proposed Amendment Matrix (Exhibit 5) has been created to track proposed amendments to the Planning Commission's draft of Sammamish Home Grown (Exhibit 2). This document will continue to be updated as well.

FINANCIAL IMPACT:

N/A

OTHER ALTERNATIVES CONSIDERED:

N/A

RELATED CITY GOALS, POLICIES, AND MASTER PLANS:

The City's housing policy is mainly contained within the Housing Element of the Comprehensive Plan; however, housing policy is developed and implemented in multiple ways, including via the Sammamish Town Center Subarea Plan, the ARCH Housing Trust Fund, and others. Links to such documents are provided below:

1. [2015 Sammamish Comprehensive Plan](#)
2. [Housing Element of the Comprehensive Plan \(Volume I\)](#)
3. [Technical Background for the Housing Element of the Comprehensive Plan \(Volume II\)](#)
4. [Sammamish Town Center Documents](#)
5. [ARCH Website](#)



801 228th Avenue SE ■ Sammamish, WA 98075 ■ phone: 425-295-0500 ■ fax: 295-295-0600 ■ web: www.sammamish.us

Planning Commission

August 28, 2018

Dear Mayor Malchow and Members of the Sammamish City Council,

On behalf of the Planning Commission, we are pleased to forward to the City Council this recommendation on the adoption of the 2018 Housing Strategy Plan, Sammamish Home Grown. This plan guides the implementation of the goals and policies adopted in the Housing Element of the Comprehensive Plan. The purpose of the document is to help transform these policies into near-term strategies and prioritize those that seem most promising.

For the past year, Planning Commission with support from the Human Services Commission, has led the development of Sammamish Home Grown. This was a significant effort as we know how important this topic is for our city and its residents. Over the course of the past year the Commission has met ten times, spending over 20 hours, to learn about and discuss this topic. This included studying demographic and housing data for Sammamish as well as the surrounding region to identify housing needs in our community, listening to residents' and other key stakeholders' thoughts and comments and taking extra time to review additional data and conduct further outreach and research. All of this information was used to assist us in developing, refining and prioritizing the housing strategies you see included in Sammamish Home Grown.

Listening to the needs and priorities of our community members including local residents, educators, businesses, and service providers was a priority for us so we utilized a variety of methods in an effort to reach them:

Audience	Purpose	Outreach Method
Those who live and work in Sammamish	To better understand community perspectives and desires related to housing.	Community Survey
Residents and other Stakeholders	To provide an opportunity for people to further engage and learn more about the City's current housing supply, the City's goals and policies related to housing, and the purpose of a housing strategy plan.	Community Workshop
Local Public-School Staff	To understand how Sammamish's current housing market impacts local schools and gain an understanding of the housing needs of school staff who represent a large percentage of Sammamish's workforce.	Focus Group
Social & Human Service Providers, Local Businesses	To better understand the housing needs and priorities of current and potential future residents of Sammamish.	Online Surveys & Phone Interviews
Market-rate and Affordable Housing Developers	To see a variety of perspectives on the housing strategies being explored and get insights into what might be most effective in addressing the housing needs of Sammamish and our region.	Panel Discussion

We believe that the strategies we have chosen to prioritize help ensure that Sammamish continues to be a strong, vibrant, and attractive place to live and work now and in the future. We want our city to remain a desirable place where people want to live. During our deliberations, we discussed and considered many issues of importance to

the City of Sammamish and the City Council, including transportation improvements and attractive and distinctive neighborhood character. We decided to develop Sammamish Home Grown based on the assumption that growth within Sammamish will continue and that the strategies proposed are intended to improve the outcome of that growth. We acknowledge that the implementation of many of the proposed strategies may necessitate future discussions related to transportation improvements and other long range planning projects.

As Sammamish residents who care deeply about our city and its residents, we unanimously agree that the document before you addresses many of the current needs in our community while laying a strong foundation for the future of our city. It is our hope that you evaluate the priority rankings of our top strategies and assist staff in developing a work plan and allocating resources to support the implementation of these strategies.

Thank you,


 Shanna Collins
 Chair, Planning Commission

8-24-18
 Date


 Larry Crandall
 Vice Chair, Planning Commission

8/21/18
 Date


 Eric Brooks
 Planning Commissioner

8/23/18
 Date


 Roisin O'Farrell
 Planning Commissioner

8/21/18
 Date


 Jane Garrison
 Planning Commissioner

8/27/18
 Date


 Mark Baughman
 Planning Commissioner

8/23/2018
 Date

Rituja Indapure (e-signature)
 Rituja Indapure
 Planning Commissioner

8/21/2018
 Date



SAMMAMISH HOME GROWN

• • • • •
A PLAN FOR PEOPLE,
HOUSING, AND COMMUNITY



The 2018 Sammamish Housing Strategy
Planning Commission Recommended Draft September 4, 2018

Cover Images

Sammamish Neighborhood, City of Sammamish

SAMM Apartments by SeaLevel Properties, John G Wilbanks Photography, Inc

Sammamish Townhomes, Ichijo Technology Homes

Acknowledgments

Sammamish Home Grown: A Plan for People, Housing and Community has been made possible by many stakeholders, staff members, elected and appointed officials, and members of the public.

The Sammamish City Council adopted this plan on Date, 2018.

Sammamish City Council 2018

Christie Malchow, Mayor
 Karen Moran, Deputy Mayor
 Tom Hornish
 Jason Ritchie
 Chris Ross
 Pamela Stuart
 Ramiro Valderrama

Sammamish Planning Commission 2018

Shanna Collins, Chair
 Larry Crandall, Vice Chair
 Mark Baughman
 Eric Brooks
 Jane Garrison
 Rituja Indapure
 Roisin O'Farrell

Retired City Council 2017

Bob Keller
 Don Gerend
 Kathy Huckabay
 Tom Odell

Retired Planning Commission 2017

Matt Petrich
 Nancy Anderson

City of Sammamish

Larry Patterson, Interim City Manager
 Jeffrey Thomas, Director of Community Development
 David Pyle, Deputy Director of Community Development
 Kellye Hilde, Planning Manager
 Miryam Laytner, Management Analyst
 Jasvir Singh, GIS Technician
 Arthur Sullivan, Program Manager, ARCH
 Mike Stanger, Associate Planner, ARCH

Human Services Commission 2018

Tom Ehlers, Chair
 Larry Wright, Vice Chair
 Jodi Nishioka
 Nushina Mir
 Stanley Gunno
 CJ Kahler
 Joyce Bottenberg

Former City of Sammamish Staff

Lyman Howard, City Manager
 Doug McIntyre, Senior Planner



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Appendix A	Commission Meeting Summary
Appendix B	Summary of Existing Local Housing Strategies
Appendix C	Housing Needs - Demographic, Economic and Housing Data
Appendix D	Stakeholder and Focus Group Summary
Appendix E	Community Survey
Appendix F	Community Feedback
Appendix G	Gap Analysis
Appendix H	Housing Strategy Matrix

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01 | Introduction

Housing supply and housing demand in the Puget Sound region have become issues at the forefront of regional concern. As the region continues to experience an unprecedented economic boom, the concerns over rising housing prices, availability of housing, and neighborhood character are emerging as issues in need of focused solutions at the local and regional levels.

Housing markets are not defined by city boundaries. In fact, Sammamish is generally considered part of a housing market area that includes 15 other east King County cities. These cities share many commonalities and the City of Sammamish consequently deals with similar issues as these other east King County cities. This is important because housing issues are better addressed from a regionally collaborative standpoint.

Agencies such as A Regional Coalition for Housing (ARCH) help coordinate regional collaboration to address a variety of housing issues for cities such as Sammamish. One tool that ARCH cities use is a Housing Strategy Plan, which helps to implement each city's housing policies by creating a short-term work program for City Councils to set housing priorities.

In March 2018, the Housing Strategy Plan was renamed to “Sammamish Home Grown: A Plan for People, Housing, and Community.” This name change was done to better reflect the goal the Plan. The Plan is not exclusively about households, housing types, or neighborhoods; the Plan encompasses all of these elements of housing and community throughout Sammamish. By using a comprehensive approach to all housing in Sammamish, the City's housing policies will help create a stronger, more vibrant community for many years to come.



02 | Housing Strategy Plan Function



The purpose and objective of Sammamish Home Grown is to guide the implementation of the goals and policies adopted in the Housing Element of the 2015 Sammamish Comprehensive Plan. The City of Sammamish's Housing Strategy Plan was last updated in 2006. An updated Housing Strategy Plan is needed to help the City implement the policies it adopted as part of the Housing Element of the Comprehensive Plan in 2015, later amended in 2016 to respond to a Growth Management Act (GMA) compliance challenge. In addition to the new policy framework, the updated housing strategy allows the City to further respond to more recent market trends and economic data.

Sammamish Home Grown serves as a work plan that helps the City transform policies into near-term actions and determine priorities for the preferred strategies. Sammamish Home Grown is not an action plan, nor is it a policy document in and of itself. Sammamish Home Grown identifies the strategies that align with the City's policies and address key housing gaps to consider for action in the short term.

The policy direction established in the Comprehensive Plan is broad and covers a 20-year time frame. The Plan's purpose is to set the scope of work for the next three to five years. Specific actions related to each strategy area will be determined based on more detailed study and analysis and include opportunities for more community input as each strategy is evaluated. In some cases, the outcome could result in maintaining the status quo.

03 | Policy Direction

The Goals and Policies outlined in the [2015 Sammamish Comprehensive Plan Housing Element](#) provide a framework for which the housing strategies are organized. Sammamish's Land Use and Housing Element establishes goals and policies to accommodate expected housing growth in the City, and the variety of housing necessary to accommodate a range of income levels, ages, and special needs. At the same time, the element seeks to preserve existing neighborhood character by including policies that will keep new development compatible.

Housing Element Goals



Neighborhood Vitality and Character

Promote safe, attractive, and vibrant residential and mixed-use neighborhoods. Encourage housing design that is sensitive to quality, design, and intensity within neighborhoods and with surrounding land uses. Land use policies and regulations should emphasize compatibility with existing neighborhood character. In areas where the existing character is in transition, new development should be designed to incorporate the qualities of well-designed neighborhoods.



Housing Supply and Variety

Ensure that Sammamish has a sufficient quantity and variety of housing to meet projected needs, preferences, and growth of the community.



Housing Affordability

Provide for a range of housing opportunities to address the needs of all economic segments of the community



Housing for People with Special Needs

Support a variety of housing opportunities to serve those with special needs.



Regional Collaboration

Actively participate and coordinate with other agencies in efforts to meet regional housing needs.



Monitoring

Implement Housing Element goals in a manner that is effective, efficient and transparent.

04 | Process and Public Engagement

The effort to update the City’s Housing Strategy Plan was launched in September 2017. The Sammamish Planning Commission acted as the lead advisory body and the Sammamish Human Services Commission provided additional input related to the housing categories of affordability and special needs housing.

City staff worked with ARCH to prepare for the Housing Strategy Plan planning process and also referred to City planning documents and efforts including the 2015 Comprehensive Plan, the Transportation Master Plan, the Town Center Plan and the Urban Forest Management Plan.

Open public Planning Commission meetings were regularly held to update the Commission on the progress of the project, garner feedback on certain issues, and ultimately recommend and approve the final product. Meetings with the Planning Commission and the Human Services Commission occurred during all stages of the planning process. Meetings with the City Council started after the Planning Commission completed its work and recommended a draft Plan to the City Council. A summary of Commission meetings can be found in [Appendix A](#).



Public outreach and engagement were critical components to the Housing Strategy Plan update effort. Staff sought input on housing needs and gaps as well as the community’s ideas related to specific efforts the City can undertake in the short-, medium-, and long-term to enhance our housing stock and address affordability issues. Efforts included, an open house event, a community-wide survey, development of a project website, as well as key stakeholder input through panel discussions, surveys, and interviews. See [Appendices D-F](#) for more details on input gathered.

[PLACEHOLDER – any necessary substance relating to City Council review]



05 | Plan Organization

The following sections of this plan identify the top strategies recommended by the Planning Commission and Human Services Commission ([Section 06 | General Themes](#) and [Section 07 | Top Strategies](#)). The General Theme section provides some context based on Commission work session public meetings and input from the Community Survey, focus groups, and stakeholder interviews on the top strategies identified.

In both sections, Housing Strategies are grouped by the following key themes:

- Neighborhood Vitality and Character
- Housing Supply and Variety
- Housing Affordability
- Housing for People with Special Needs
- Regional Collaboration

In order to build a user-friendly strategy plan, the top ranked strategies for each theme are excerpted and shown in [Section 07](#). The full strategies matrix is included in this Plan as [Appendix H](#) and exhibits all high-, medium-, and low-priority strategies.

The remaining sections of the Housing Strategy Plan provide more insight into the elements that informed the selection of the top strategies as well as how those strategies relate to current housing efforts.



06 | General Themes

In the Community Survey ([Appendix E](#)) over 60% of respondents indicated a desire for a range of housing options for households at all stages of life. What is less clear from the survey is exactly what shape and affordability that housing should come in, with different levels of support for different ideas. There was more consensus, however, on how it should be done. Most notably, that in the future, housing should protect critical environmental features, preserve character of existing community, and to a lesser degree, employ a diversity of architecture. Following are additional observations for each of the five categories of housing strategies that helped shaped the Planning Commission's development of priority strategies in Sammamish Home Grown - A Plan for People, Housing and Community.



A. HOUSING THEME - NEIGHBORHOOD VITALITY AND CHARACTER

In the Community Survey over two-thirds of respondents did not feel that new housing was well-designed and fit with the character of the neighborhood. The Commission heard this perspective and spent time thinking about how to address it. They explored ideas such as including design standards that require better integration of new homes/development into existing neighborhoods. Other thoughts that should be explored to inform strategies in this area include:

- Neighborhood character is influenced by our roadways and pedestrian systems. We should evaluate how design of homes along streets, especially arterials, impacts neighborhood character. We should look at how street design

can incorporate artwork and reinforce community character and how sidewalks and trails can weave around trees and ponds. We can also create trails that connect different parts of the City.

- While being budget-driven, infrastructure can also impact and augment neighborhood vitality and character. For example, changes to small infrastructure features (e.g. signage, street lights) and public art can give an identity to a neighborhood and bring a community together while replacing aging infrastructure.
- Sub-area plans provide an opportunity for implementing various housing strategies, especially those related to neighborhood vitality and character. The City has considered subarea plans for its centers (Inglewood, Pine Lake and Klahanie). Consideration should be given to doing plans for other neighborhoods as well. Sub-area plans provide an opportunity to focus on the broader community (e.g. parks, greens spaces, accessibility to services, and safe sidewalks), and go beyond strategies that focus just on features of individual properties (setbacks, architectural features). While sub-area plans offer the opportunity to plan on a neighborhood scale, the plans should also complement one another so that they collectively contribute to the overall sense of place in Sammamish.
- A focus on sub-area plans will allow the City to continually assess its approach to growth, with a particular emphasis on Town Center and the density allowed by the current zoning, as well as housing balance and densities outside of Town Center. Sub-area plans should be reevaluated on a regular basis to synchronize with the eight-year periodic Comprehensive Plan update to ensure effective timing, taking into account present and future housing needs and

General Themes

striving for community and environmental health.

- While not a significant issue currently, the increasing age of the City's housing over time is worthy of ongoing consideration. Just under 20% of the City's housing was built before 1980, and another 50% was built between 1980 and 2000. Aging housing supply creates both opportunities (ability to preserve some relatively affordable housing) and challenges (deferred maintenance impacting neighborhood stability). This is a topic that will only grow in the future and some strategies are intended to address the challenges and opportunities of aging housing.



B. HOUSING THEME - HOUSING SUPPLY AND VARIETY

Strategies related to increasing overall housing supply and variety were framed by information and various data on our existing community:

- The changes to the demographics of the community and households in the community meant there are more diverse types of households such as empty nesters, multi-generational families, people with disabilities, and single parent households. There are few housing options available currently in Sammamish to address the range of needs households experience over time. Also with growing housing costs, it is more difficult for young families, single individuals and young adults to become part of the community.
- The relatively low proportion of teachers and school staff, City staff, and local retail workers in Sammamish who live in the City. These jobs are vital to the quality of life in Sammamish. Employers report that many of their employees have difficult commutes that frequently lead to turnover.
- The Community Survey reinforced some of these demographic changes and a desire to address these needs. Under existing conditions, the majority of respondents indicated there are few housing opportunities for families, especially younger households; affordable housing options are hard to come by; and there is a lack of small housing in neighborhoods. In terms of visions for the future, two of the strongest responses included providing a range of housing options for households at all stages of life, and providing a range of opportunities to age in place, either in existing homes or in the community.

Focused on this background information, a variety of themes emerged that should be considered as work continues on strategies that address the supply and variety of housing in the City.

- While there are more obvious areas of need (e.g. seniors, persons with disabilities, and people experiencing homelessness), there are also market gaps for other types of households, including moderate- and middle-income families, smaller families (e.g. single-parent households), and multi-generational families. An overall objective is to have housing options that provide the ability to move through life, from responding to the needs of young adults through addressing the needs of empty nesters.

General Themes

- What may constitute “all stages of life” might be somewhat different in Sammamish than other cities. Ongoing efforts should include consulting with realtors, community agencies and others to understand the needs and market demands in Sammamish. New forms of housing should be tracked to assess their level of demand (such as the two new projects in Town Center that have a relatively high proportion of one-bedroom and studio units). This will help to understand if, for example, Sammamish has a low proportion of young single households due to a lack of appropriate housing, or due to other factors like limited amenities and access to frequent public transportation.
- It is important to have housing options for people who live in the community but who do not have high disposable incomes. This will allow seniors who want to remain with their friends, social networks, and community to stay here. One component of this is providing support, through public and community programs, to middle- and low-income households who do not have money to repair their homes.
- One tool for creating housing diversity is re-zoning. There is an opportunity for the City to create a process that ties re-zoning to the demonstration of a clear and compelling need and public benefit (in addition to locational criteria).
- The City has a small proportion of multi-family housing that is relatively expensive compared to county-wide rents. It is acknowledged that multi-family housing (rental and ownership) is a way to address some of the community’s housing gap areas. A greater diversity of housing, including rental and ownership multi-family housing, could provide housing types that could assist in recruiting and retaining high quality teachers and other employees supporting Sammamish residents. The City should continue to evaluate and seek opportunities to balance the available housing types with the needs of the community.
- The concept of clustering residential development as a means of protecting environmentally sensitive areas could provide innovative opportunities for housing variety while also respecting the environment.
- Not all options will be suitable in all locations. The City may need to consider features such as location near or on arterials, or in sensitive or hazards areas (e.g. creeks or drainage areas). Availability of transit could be another consideration. The sub-area planning process provides an opportunity to consider different forms of housing on a neighborhood scale.
- Some efforts to increase diversity could also help address needs for moderate- and middle-income households (e.g. accessory dwelling units, tiny homes, cottages).

C. HOUSING THEME - HOUSING AFFORDABILITY

- Of the questions related to current conditions in Sammamish In the Community Survey, the strongest response was that affordable housing options are hard to come by.



General Themes

- One area of apparent need is more affordable forms of ownership housing for moderate- and middle-income households. This was reinforced in conversations with the local school district relative to recruiting and retaining employees. While the needs of very low-income households were not prioritized in the community survey, both social service providers and local businesses highlighted the need for rental and ownership options for low- and very low-income households that were located near public transportation.
- As the City moves forward it should continue to refer to demographic information and talk with local organizations and low-income residents regarding local needs for affordable housing to help shape local efforts.
- The Housing Diversity section of the Community Survey mentioned the needs of aging residents. Many seniors do not have high disposable incomes, thus serving the needs of seniors is also a housing affordability issue. As was mentioned previously, the future housing goals that received one of the highest responses in the Community Survey is that there are opportunities to “age in place”. Other populations with special needs also often have limited incomes and thus housing affordability challenges.
- Affordable housing and economic diversity should be increased and dispersed throughout the City with affordable housing integrated into the community as much as possible.
- It is important to support middle- and low-income families who do not have money to repair their homes.
- The City should move expeditiously to create affordable housing opportunities. Efforts could include increasing inclusionary and incentive zoning provisions (i.e. requirements or incentives for developers to include affordable housing within their projects), while finding some opportunities for very low-income households (30% AMI).

D. HOUSING THEME - HOUSING FOR PEOPLE WITH SPECIAL NEEDS

As the City matures there could be shifts in the City’s population and demographics, including those households which may have special housing needs. Housing for people with special needs generally refers to people or households which need some type of assistance in addition to their housing.

The proportion of City residents over the age of 55 is still lower than other cities in East King County, but it increased from 11% to 17% from 2000 to 2010. Homeless students in East King County schools increased from just under 500 students in 2007 to almost 800 in 2013, with about 380 homeless students in the Issaquah and Lake Washington School Districts. Currently the City has less than 100 residents living in group homes, a rate less than a third of other cities in East King County. These circumstances suggest more attention needs to be paid to housing appropriate for people with special needs.



- Previous sections have already identified the value of providing options to allow seniors to age in their home or community. To do this, a range of housing options are needed, including affordable housing options that allow residents to downsize and congregate housing options.

General Themes

- Housing for people with special needs, particularly those living with disabilities and those experiencing homelessness, should also be prioritized, with options beyond group homes explored. The Zoning Code should be reviewed to ensure it allows various options through reasonable accommodation or other means.
- It is important to support the special needs community, including the homeless, in a variety of ways. Efforts to engage the broader community to provide forms of support beyond monetary donations could help build personal connections among neighbors and build a sense of community among all of Sammamish's residents.
- There are City residents in need of special needs housing. For example, Friends of Youth serves young adults experiencing homelessness in Sammamish who currently have very few options to stay in Sammamish while they get back on their feet. Many of the organizations that provide services and housing to those with special needs (homeless, persons with developmental disabilities) work throughout East King County. Local efforts should complement broader regional efforts and support should be provided for opportunities located in neighboring cities as well as in Sammamish.

E. HOUSING THEME - REGIONAL COLLABORATION

While the City undertakes a variety of efforts to address the type, design, variety and affordability of housing within the City, there are also external regional factors to consider. Sammamish is part of a larger housing market area that is impacted by a variety of factors. For example, the regional employment market significantly impacts demand for housing within the City. Given this reality, it is in the City's best interest to participate in broader efforts when there are issues and policies that could impact housing conditions and address needs of residents in Sammamish. These efforts can range from supporting federal and state legislation that provides a wider range of tools for the City to utilize; to creating resources that can supplement local resources to address local needs, especially for affordable housing; to participating in regional joint planning efforts to address housing needs and the needs of those experiencing homelessness.

07 | Top Strategies

This section contains summaries of strategies identified by elected and appointed officials as high-priority strategies that will enhance the usability and implementation of Sammamish Home Grown. These summaries have been excerpted from the Housing Strategy Matrix ([Appendix H](#)) which contains all housing strategies, with examples and considerations for each, as well as other information about the intent of each strategy. [Appendix H](#) represents the full implementation plan for the Housing Element of the Sammamish Comprehensive Plan and provides a more robust understanding of the Housing Strategy Plan.

The summary is shown on the following pages in Table 1: Top Strategies and are grouped by Housing Theme.

Top strategies were selected by the Planning and Human Services Commissions after extensive research and discussion. Over the course of several months, Commission meetings were spent reviewing data and information on housing gaps, existing housing strategies, and other relevant topics. After this, the Planning Commission and Human Services Commission began substantive discussions on housing strategies before providing detailed input on the strategies and their relative importance for inclusion in Sammamish Home Grown. Staff used this input to re-order strategies to reflect the priorities that Commissioners identified.

Once strategies were re-ordered, Planning Commissioners were briefed on key stakeholder input from builders and affordable housing developers, local schools, social and human service providers, and local businesses. Commissioners also received public testimony through a public hearing. Following this they held further discussion to come to consensus on the preferred priorities amongst the strategies in each housing category. Commissioners felt that each housing category necessitated an identification of the top three most important strategies for implementation; these are reflected in the Top Strategies below.



Top Strategies

TABLE 1: TOP STRATEGIES (Refer to Appendix H for the full Housing Strategy Matrix with examples)	
A. Housing Theme - Neighborhood Vitality and Character	
A.1	Community Design Standards - Develop community design standards to reflect the desired characteristics of each neighborhood planning area or designated community center.
A.2	Sub-Area Plans - Develop Sub-Area Plans for central neighborhoods (i.e. the Inglewood, Pine Lake and Klahanie Centers), as well as other neighborhoods.
A.3	Subdivision Code Update
B. Housing Theme - Housing Supply and Variety	
B.1	Incentives to Expand Housing Choice - Provide incentives for diverse housing opportunities that meet community needs.
B.2	ADUs - Track production of ADUs and evaluate effectiveness of land use regulations in encouraging production while balancing maintaining neighborhood compatibility. Explore other actions for encouraging additional creation.
B.3	Mixed-Use Design Standards - Develop mixed use design standards and development regulations in City centers, including Inglewood, Pine Lake and the Town Center planning area.
B.4	Transit Oriented Housing Development - Consider potential sites and appropriateness of land use regulations that could allow for Transit Oriented Housing Development near existing or planned transportation facilities.
C. Housing Theme - Housing Affordability	
Regulatory	
C.1	Dispersed Affordable Housing - Ensure that affordable housing is dispersed throughout the community through zoning and sub-area planning.
C.2	Criteria for Rezones Requiring Affordable Housing - Establish standards and criteria for rezones to require the provision of affordable housing on- or off-site. Criteria to include clear and compelling need and public benefit.
C.3	Zoning to Allow Range of Housing Affordability - Establish a range of residential densities to meet community housing needs and consider compatibility with the character of the City.

Top Strategies

Direct Assistance	
C.6	ARCH Housing Trust Fund - Participate in local, inter-jurisdictional programs, such as the ARCH Housing Trust Fund, to coordinate and distribute funding of affordable and special needs housing.
C.7	Public Land Survey - Develop and maintain an inventory of surplus and underutilized public lands. Review survey to determine if such lands are suitable for housing and other public uses.
C.8	Support the Preservation of Existing Affordable Housing - Identify the most strategic opportunities for preserving existing properties, e.g. location, condition, bank-owned, growth areas.
D. Housing Theme - Housing for People with Special Needs	
D.1	Accessibility - Encourage Universal Design features that improve housing accessibility for people with disabilities.
D.2	Senior Housing - Review senior housing land use regulations. Ensure that regulations support senior housing and recognize smaller household sizes.
D.3	Support organizations serving those with special housing needs.
E. Housing Theme - Regional Collaboration	
E.1	Federal and State Housing Legislation Review, and as appropriate, provide comment on county, state and federal legislation affecting housing in Sammamish.
E.2	Housing Balance - Work cooperatively with other jurisdictions to achieve a regional fair share housing balance and maximize housing resources, e.g. ARCH.
E.3	Regional Housing Finance Strategy - Work with other jurisdictions to develop and implement a new regional housing finance strategy.

08 | Monitoring Activities

One benefit of Sammamish Home Grown is to assist the City in preparation for the next periodic Comprehensive Plan update, due in 2023. There are a number of strategies that do not directly result in the creation of housing. These strategies generally fall into the area of monitoring local efforts to understand local needs, track what's being done, and evaluate the effectiveness of specific strategies.

Monitoring also helps inform future planning efforts. It often requires some level of ongoing effort in order to identify changes in local conditions and to assess the impact of different strategies that were implemented. "Monitoring" efforts have been listed separately from the other strategies and they are grouped into three categories:



- General monitoring: Includes efforts to track general housing supply and costs (affordability).
- Previous City efforts monitoring: Involves City policies or regulations in place that should be monitored to assess whether they are accomplishing their intended results (e.g. City's update to zoning code and permit process).
- Specific issues monitoring: Includes tracking items that are not currently significant issues in the City, but have been significant in other cities and could become more prominent (e.g., regulating micro-apartments or conversions of single-family homes to student rentals).

Table 2 lists specific monitoring suggestions for each of these areas. An explicit effort to predefine annual monitoring and data collection activities is recommended. Assessment of these efforts is necessary to ensure that adequate information is available to determine the effectiveness of the City's efforts.



Monitoring Activities

TABLE 2: MONITORING		Policy No.
MONITORING ACTIVITIES – GENERAL		
Routine, on-going data collection and reporting for planning purposes, program evaluation, etc.		
	Monitor the City’s housing supply, type and affordability including measurable progress toward meeting a significant share of the county-wide need for affordable housing for very low-, low-, and moderate-income households.	H.6.3
	• Evaluate and report on how the goals and policies of this Housing Element are being achieved.	H.6.4
	Regional Land and Housing Monitoring - Collect housing information on a regular basis needed for regional Benchmarks, Buildable Lands and OFM housing reports.	H2.1
	Regional Benchmarks. Work with other jurisdictions to develop regional benchmarks and, as needed, collect information for regional benchmarks.	H.6.2
	Housing Strategy Plan - Prepare a Housing Strategy Plan to develop strategies to address low and moderate income housing targets consistent with the County-wide policies. Update every three years.	H.6.1
MONITORING ACTIVITIES – PREVIOUS EFFORTS		
Gathering information to evaluate effectiveness of recently adopted regulations, recently funded programs, etc.		
	Impact Fee Reductions - (Examples may include permit fees, impact fees, hook-up fees. Evaluate which fees and if done programmatically or case-by-case).	H.3.4
	Innovative Housing Development - Review effectiveness of housing regulations and approval process to allow/encourage a variety of housing types to meet community housing need. Innovative housing types may include: Accessory units; small lot SF; attached SF; carriage houses or cottages; townhouses; mixed-use residential; multiplexes (“great-house” that resembles a SF dwelling unit); and transit-oriented housing development. If a need is determined, consider incentives and programs to encourage	H.2.4, H.2.5, H.2.6, H.2.7
	Manufactured Housing - Allow manufactured housing in all residential zones consistent with Senate Bill 6593 requiring local governments to regulate manufactured housing in the same manner as other housing.	H.2.7
	Housing Supply - Monitor development and evaluate the affects new regulations and/or rezones may have on the housing supply/land capacity, and the community vision. Monitor progress in meeting housing needs and report to City Council.	H.2.3, H.6.3
	Fair Housing Act Consistency - Review group homes standards for consistency with the Federal Fair Housing Act. Ensure codes provide opportunities for special needs housing, including emergency housing, transitional housing, assisted living, independent living, family based living and institutions.	H.2.11, H.4.3

Monitoring Activities

MONITORING ACTIVITIES – POTENTIAL EMERGING ISSUES		
Tracking issues for potential future action.		
	Single Family Neighborhoods - Monitor zoning guidelines and development to ensure single-family dwellings are the principal use in the City's established single family neighborhoods.	LU.1.1
	Infrastructure Improvements - Monitor infrastructure improvements and maintenance in residential neighborhoods consistent with City's capital Facilities and subarea plans.	H.6.1
	Inventory older neighborhoods for redevelopment at higher densities and with greater affordability.	



09 | Housing Needs

In order to craft effective strategies, it was imperative to understand the housing needs relative to the demand and supply for housing in Sammamish. The housing data for Sammamish led to an identification of the housing gaps in Sammamish for both household types and housing types ([Appendix G](#)). Outlining the housing gaps helped Sammamish's elected and appointed officials rank, prioritize, and revise the proposed strategies.

Currently, the majority of housing stock in Sammamish is comprised of single-family detached units with 3-4 bedrooms that are only affordable to those with household incomes over 100% of the Area Median Income (AMI). Data shows that housing needs in Sammamish for very low-, low-, moderate- and middle-income households are significant regardless of household type. Housing cost burden (when a household pays 30% or more of their income for housing) impacts a large number of Sammamish households, especially those that have family members who are disabled and those with lower incomes.



Most Sammamish residents commute to jobs located outside the City. The limited affordable housing stock combined with the fact that the majority of jobs available in Sammamish are service jobs that are lower paying, means that most people working in Sammamish struggle to afford to live in the City. This situation impacts the quality of life of all Sammamish residents because, among other things, it impacts local and regional congestion. Please see [Appendices C-F](#) for more background information on Sammamish's housing needs.

Based on the data, the following gaps were identified in the City's supply of the following housing types:

- Single-family detached housing and single-family attached housing (townhomes, duplexes and condos) affordable to very low-, low-, and moderate-income households.
- Multi-family rental housing affordable for very low-, low-, and moderate-income households.
- Senior housing for all income levels.
- Homes under 1,000 square feet for all income levels.
- Transit oriented housing for all income levels.
- Housing walkable to services and employment for all income levels.
- Emergency shelters for all income levels.
- Group homes for all income levels.

Housing Needs

- College student housing for all income levels.

While the Sammamish Planning Commission and the Sammamish Human Services Commission identified many unmet housing needs, they prioritized single-family attached and multi-family rental housing for all income levels as well as senior housing. Additionally, they saw a need for emergency shelter and group homes for all income levels.

In regards to housing gaps related to household types, the following gaps were identified:

- People living alone that are very low-, low-, moderate-, and middle-income including young adults and other singles.
- Couples without children that are very low-, low-, and moderate-income including empty-nesters and other couples.
- Couples with children that are very low-, low-, and moderate-income including small families and large families.
- Single parent households that are very low-, low-, and moderate-income.
- Seniors (in one- or two-person households) that are very low-, low-, moderate-, and middle-income.
- Extended, multi-generational families that are very low-, low-, and moderate-income.
- Unrelated roommates that are very low-, low-, and moderate-income.
- People with disabilities that need on-site services of all income levels.
- People experiencing homelessness of all income levels.

The Sammamish Planning Commission and the Sammamish Human Services Commission prioritized senior households, couples with children, single parent households and people experiencing homelessness for all income levels. They also saw significant housing needs for couples without children and people with disabilities that need on-site services also both at all income levels.

Please see [Appendix G](#) for the summary of the Housing Gaps Analysis conducted.

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Appendix A | Commission Meeting Summary

PLANNING COMMISSION MEETINGS

September 6, 2017 - Project Kick-off

Staff walked the Planning Commission through the basic purpose of a Housing Strategy Plan, including some of the elements of the City's existing Housing Strategy Plan from 2006, as well as the Commission's role in the update of the Housing Strategy Plan. Commissioners also gained an understanding of Sammamish housing policy and the planning framework and how those affect the housing supply.

December 7, 2017 – Work Session #1

The Planning Commission took the next step in understanding the Housing Strategy Plan at the first work session. There was a heavier focus on data about Sammamish's housing needs and characteristics. Furthermore, specific information was provided to the Planning Commission regarding strategies that are in the current Housing Strategy Plan and strategies that other local jurisdictions use. Planning Commission learned about how staff transforms housing policy into actionable strategies that can be implemented in the short term.

January 18, 2018 - Work Session #2

The Planning Commission provided direction on the types and amount of data that was desired for future work sessions to help facilitate substantive conversations on housing strategies. They also provided input on the outreach strategy and the plan to synthesize public input to transform community desires into strategies that can be implemented in the short term or studied for future implementation.

February 1, 2018 – Work Session #3

Staff compiled and presented data for the City of Sammamish in the context of the larger region, including King County and east King County. This demographic and housing data allowed the Planning Commission to better understand Sammamish's current characteristics and housing supply in preparation for analyzing the gaps that exist between the current housing supply and the community need for housing.

March 1, 2018 – Work Session #4

ARCH presented an overview of the housing strategies included in the City's 2006 Housing Strategy Plan and discussed how those strategies have been used and could still be used in Sammamish. Following the presentation by ARCH, the Planning Commission began discussing potential key housing gaps in Sammamish.

June 7, 2018 – Work Session #5

Housing industry professionals provided the Planning Commission with an industry perspective (via a Question and Answer Panel format) for the Planning Commission to consider as Commissioners continue to discuss and deliberate housing strategies. The goal for this work session was for Commissioners to better understand the real world context in which these strategies get implemented.

July 5, 2018 – Public Hearing and Deliberation

Appendix A | Commission Meeting Summary

The Planning Commission received input on stakeholder focus groups that were held between the June 7th and July 5th Planning Commission meetings. Commissioners also learned about the revisions that Staff made to the housing strategies matrix (Exhibit 1) in response to input received in previous meetings. The July 5th meeting was also the first opportunity for the Planning Commission to review a draft plan (Exhibit 2). The Commission also took public testimony regarding the draft Plan, housing strategies, and Comprehensive Plan Amendment for consideration in deliberations prior to a formal recommendation to the City Council.

July 19, 2018 – Deliberation and Recommendation

The Planning Commission continued deliberations on Sammamish Home Grown, discussing strategies, examples, and their priorities. Commissioners each had the opportunity to provide feedback and then propose amendments to the Plan and the strategies matrix. Following deliberations and amendments, the Commission voted 6:0 to recommend the amended version of Sammamish Home Grown - A Plan for People, Housing, and Community to City Council for adoption.

HUMAN SERVICES COMMISSION MEETINGS

March 14, 2018 – Work Session #1

Staff from ARCH presented a brief overview of housing data and helped the Human Services Commission understand the framework within which the City conducts its planning efforts. These were the first steps in helping the Commission prepare to discuss potential key housing gaps in Sammamish so that they could provide input on housing affordability and special needs housing strategies.

April 11, 2018 – Work Session #2

Commissioners discussed housing gaps building on the exercise conducted at the Joint Planning and Human Services Commission Meeting Work Session to ensure full participation of all Commissioners. Staff also provided a review of the housing strategies included in the City's 2006 Housing Strategy Plan and discussed how those strategies have been used and could still be used in Sammamish.

May 9, 2018 – Work Session #3

Commissioners reviewed the list of potential housing strategies, focusing on those related to housing affordability and special needs housing and discussed how those strategies have been used or could be used in Sammamish. The Human Services Commission also reviewed the full results of the housing gap exercise from the previous work session in preparation for the upcoming Joint Planning Work Session.

JOINT PLANNING COMMISSION AND HUMAN SERVICES COMMISSION MEETINGS

April 5, 2018 – Work Session #1

Commissioners participated in a housing gaps exercise to identify areas that should be focused on in the development of Sammamish Home Grown. Following the exercise, Commissioners participated in a discussion on housing strategies that the City can use to address housing gaps throughout Sammamish. The discussion was a preliminary step toward the identification of strategies that will be included in Sammamish Home Grown.

Appendix A | Commission Meeting Summary

May 24, 2018 – Work Session #2

Commissioners provided detailed input on the strategies and their relative importance for inclusion in Sammamish Home Grown. This input was provided to staff so that they could re-order the strategies to reflect the priorities identified and then shared with Housing Industry Panelists who were attending the Planning Commission Work Session in June.

CITY COUNCIL MEETINGS

September 4, 2018 – Work Session #1

(Placeholder)

September 18, 2018 – Work Session #2

(Placeholder)

October 2, 2018 – Deliberation

(Placeholder)

October 16, 2018 – Adoption

(Placeholder)

Appendix B | Summary of Existing Local Housing Strategies

Since approving the 2006 Strategy Plan, the City has taken action in a number of areas, including:

Types, Variety, and Amount of Housing:

- **Town Center.** The City's 2008 Town Center Plan calls for up to 2,000 dwelling units to promote development of housing that may not otherwise be built in the City, through a mixture of multi-family units in mixed-use and stand-alone structures, townhouses, cottages, and detached single-family dwellings. The Town Center Code (Title 21B SMC) allows more homes and a wider variety of housing types in the Town Center. Moreover, these homes will have convenient walking access to shopping, open space, and transit.
- **Transfer of Development Rights (TDR) incentives.** As another catalyzing mechanism in the Town Center, the City amended its code to enable developers to build more housing units by purchasing development rights from property owners located in four low-density residential zones of the City.
- **Low-impact development (LID) incentives.** The City now rewards developments that use one or more of the preferred techniques for reducing the environmental impacts of new residential development. The incentives include density bonuses and the allowance of attached housing.
- **Accessory dwelling units (ADUs).** The City has adopted regulations allowing ADUs, and in 2011 amended the code to allow attached ADUs on any sized lot and to waive additional off-street parking requirements.
- **Townhomes and apartments** are allowed in all zones. Additionally, to promote the development of housing in proximity to shopping and services, limited commercial uses are allowed in multi-family zones.
- **Duplex homes.** Duplexes are now allowed in all residential zones except R-1(subject to design standards).
- **Cottage housing.** The City has approved two projects under a pilot program for cottage housing in the R-4 and R-6 zones.
- **Manufactured housing.** Consistent with state law, the City allows manufactured (i.e., factory-built) homes in all residential zones and otherwise regulates them in the same manner as other housing.

Housing Affordability:

- **Town Center.** The Town Center Code ensures that at least ten percent of new housing units in the Center will be affordable to moderate-income households (or fewer, if the units are even more affordable). In exchange, developers have more options with respect to building types, height, and density. In addition, developments may receive two bonus market-rate units for each affordable unit provided above the required ten percent.
- **Surplus land.** In 2011, the City Council approved the transfer of City property (the former Lamb house) to Habitat for Humanity to provide long-term affordable home ownership for low- and moderate-income families.
- **Duplex homes.** Duplexes that satisfy conditions for affordable housing will count as one-half of a dwelling unit for purposes of density regulation.
- **Impact fee waivers.** City impact fee provisions include waivers of school impact fees for low- and moderate-income housing, and partial waivers for road and park impact fees (depending on levels of affordability and size of project).

Appendix B | Summary of Existing Local Housing Strategies

- ARCH Trust Fund. The City has provided approximately \$300,000 to support a variety of low- and moderate-income housing projects throughout East King County.

Special Needs Housing:

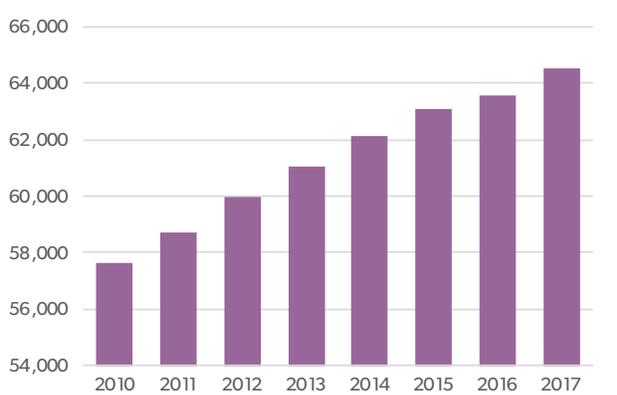
- Group Residences. Group homes are allowed as-of-right in medium-density residential zones and as part of mixed-use development in commercial zones, as well as a conditional use in low-density residential zones.

Appendix C | Housing Needs

People - Demographic Data

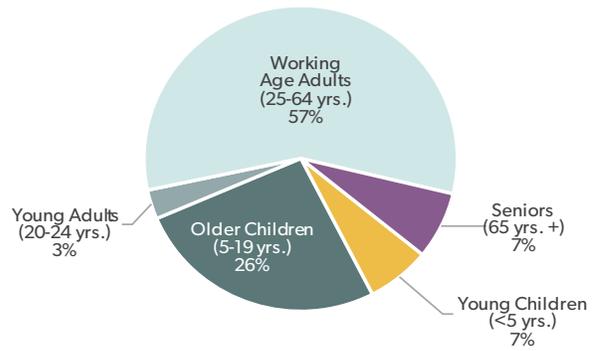
The below data was the most instrumental in the Housing Strategy Plan. More detailed and historical housing and demographic data are included in the East King County Housing Analysis, which is part of the 2015 Sammamish Comprehensive Plan.

Sammamish Population Estimates



Source: American FactFinder

Sammamish Age Estimates

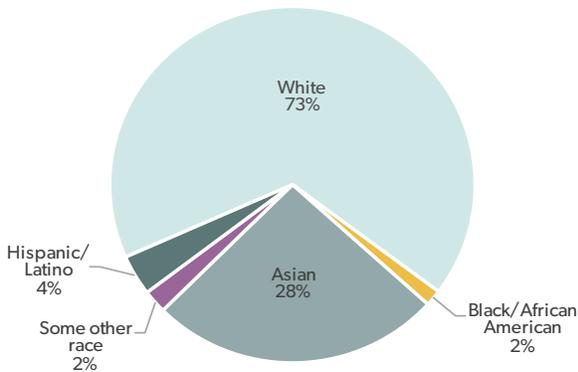


Source: American FactFinder

In 2017, Sammamish had an estimated population of 64,548.

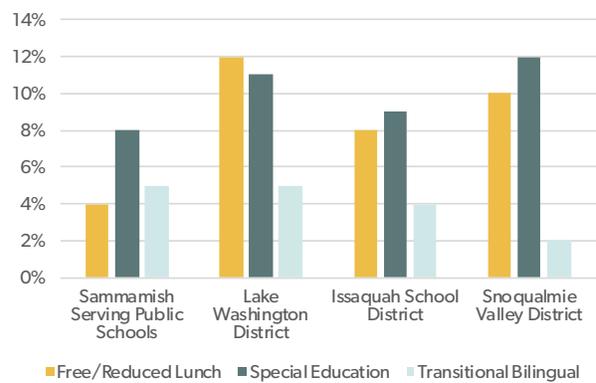
The population of Sammamish is estimated to have increased 12% since 2010. Additionally, 25% of area residents are foreign born, compared to 10% in 2000. Children under the age of 18 years make up approximately 31% of Sammamish's population.

Race & Ethnicity of Sammamish Residents



Source: American FactFinder

Public School Demographics

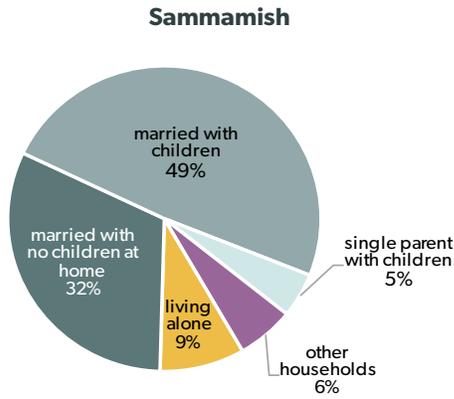


Source: Office Superintendent of Public Instruction Washington State Report Card, 2016-17

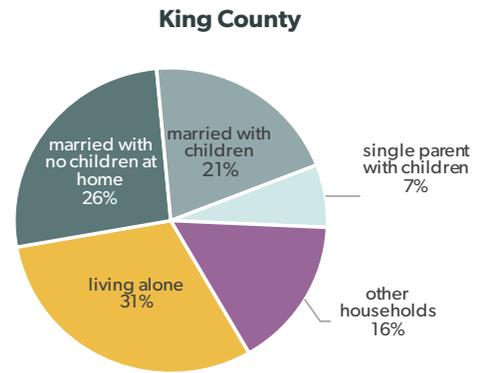
Appendix C | Housing Needs

People - Demographic Data

Household Types



Source: American Community Survey, 2015



Source: American Community Survey, 2015

One & two person households make up 40% of Sammamish households, but represent 65% of households county-wide.

While Sammamish differs from the rest of King County in terms of household type, as residents age and children move out, Sammamish household types will shift to become more reflective of King County's.

Other Household Characteristics By Income

	Sammamish Total Households	Sammamish Renters			King County Total Households
		Total	Very Low-Income	Low-Income	
Households	15,000	1,600	195	64	796,600
More than 1 family	1%	1%	0%	0%	2%
Child 6 yrs. or younger	26%	35%	13%	58%	15%
Person with a disability	17%	22%	35%	0%	29%
Small families	75%	59%	49%	66%	62%
Large families	11%	4%	8%	0%	6%
Elderly households	12%	8%	33%	0%	20%

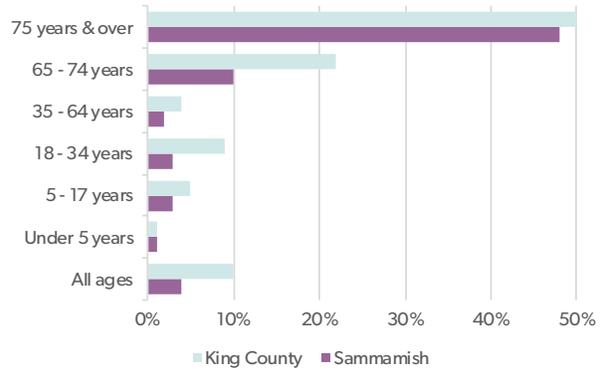
Source: U.S. Dept. of Housing & Urban Development, Comprehensive Housing Affordability Strategy, 2012

Appendix C | Housing Needs

People - Demographic Data

Disabilities included in the chart to the right include cognitive, vision, hearing and mobility impairments.

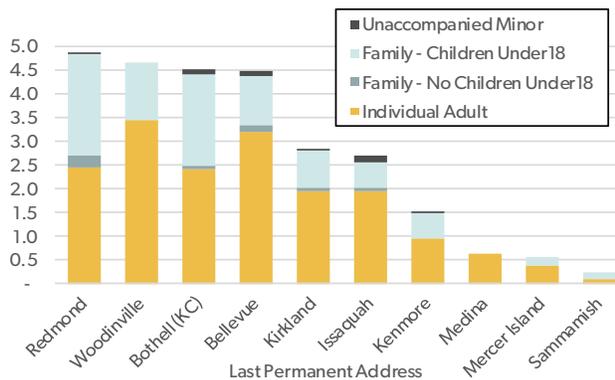
Population with Disabilities



Source: American Community Survey, 2016

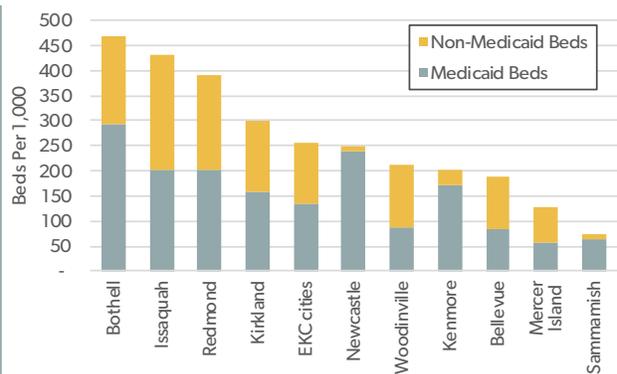
39% of Sammamish households that have a family member with a disability are cost burdened (paying more than 30% of their income for housing) compared to 28% of all Sammamish households.

People Entering the King County Homeless System in 2016, per 1,000 Residents



Source: King County Homelessness Information Management System, 2017

Licensed Assisted Living, Nursing Homes & Adult Family Homes



Source: Washington Department of Social & Human Services, 2016

Appendix C | Housing Needs

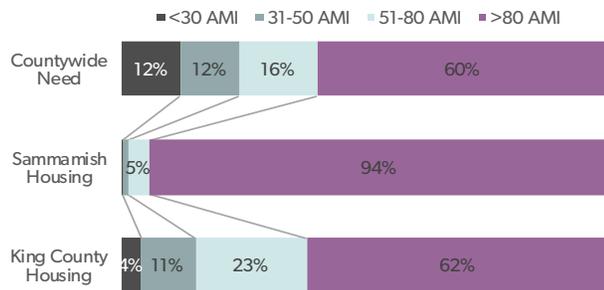
Community - Economic & Housing Data

Area Median Income (AMI)

AMI is the middle household income for households in a select region. AMI is established annually by the U.S. Department of Housing and Urban Development. Median is used instead of average because it eliminates outliers.

The Housing Policy included in Sammamish’s Comprehensive Plan is consistent with the Growth Management Act and County-wide planning policies which have goals to address the existing and future housing needs of all economic segments of the county’s households.

Housing Needs by Affordability



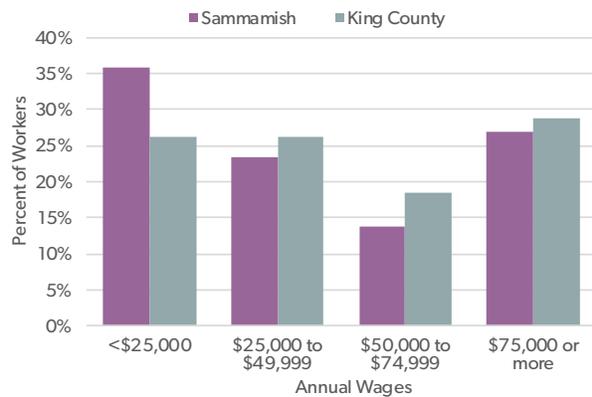
Source: U.S. Dept. of Housing & Urban Development, Comprehensive Housing Affordability Strategy, 2012

While the entire county is struggling to address the needs of lower income households, the graphic to the right highlights how the three lowest Area Median Income levels have extremely limited housing options in Sammamish.

60% of jobs in Sammamish pay less than \$50,000 a year.

82% of Sammamish jobs are filled by workers that commute to Sammamish.

Wages of Sammamish Jobs



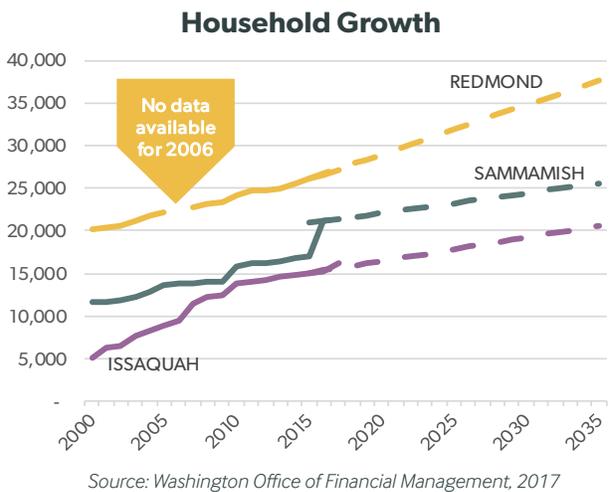
Source: American Community Survey, 2015

Appendix C | Housing Needs

Places - Housing Data

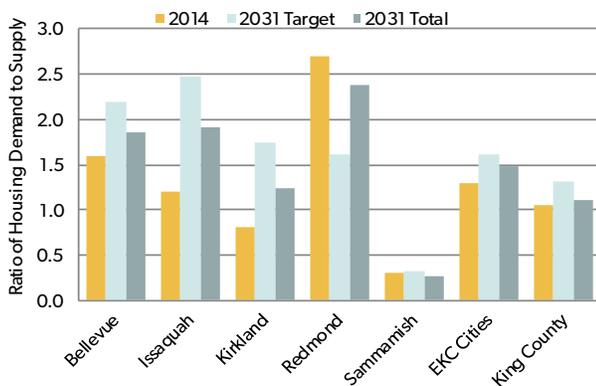
Sammamish had an estimated 21,310 housing units in 2017 and a target of 25,584 households by 2035.

The Household Growth Chart to the right shows Sammamish's growth compared to surrounding cities and what that growth will look like as it continues toward the growth target established under the Growth Management Act. Note that the jump in number of households for Sammamish in 2016 was related to the annexation of Klahanie.



Jobs-to-Housing Ratio

A housing ratio above 1.0 means there is more demand than supply



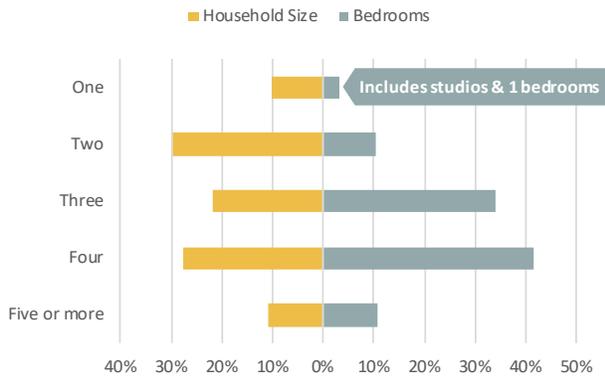
Source: A Regional Coalition for Housing (ARCH), 2014

While Sammamish has a low demand for housing from the local workforce, it is important to think about how Sammamish is influenced by the rest of the region. Job growth is expected to exceed housing growth in many of the cities surrounding Sammamish, which will put pressure on the Sammamish housing market.

Appendix C | Housing Needs

Places - Housing Data

Housing Matched to Household Size

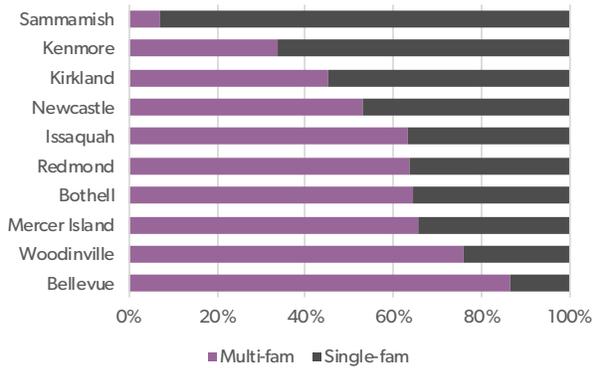


Source: American Community Survey, 2016

Sammamish developed for many years as an unincorporated area and as a result has a large number of single family homes compared to surrounding cities.

The chart on the left indicates that there's a greater demand for fewer bedroom units than what is currently available.

Issued Building Permits, 2005-2015



Source: Puget Sound Regional Council, A Regional Coalition for Housing (ARCH)

Residential Development Capacity in Sammamish



Source: King County Buildable Lands Report, 2014

In 2014, Sammamish had capacity remaining to develop 3,706 more single-family homes and 1,742 multifamily homes. Most other cities' charts would show Single-Family and Multi-Family at almost equal heights but Sammamish has more zoning for single-family homes.

Appendix C | Housing Needs

Places - Housing Data

Housing Incomes & Affordability

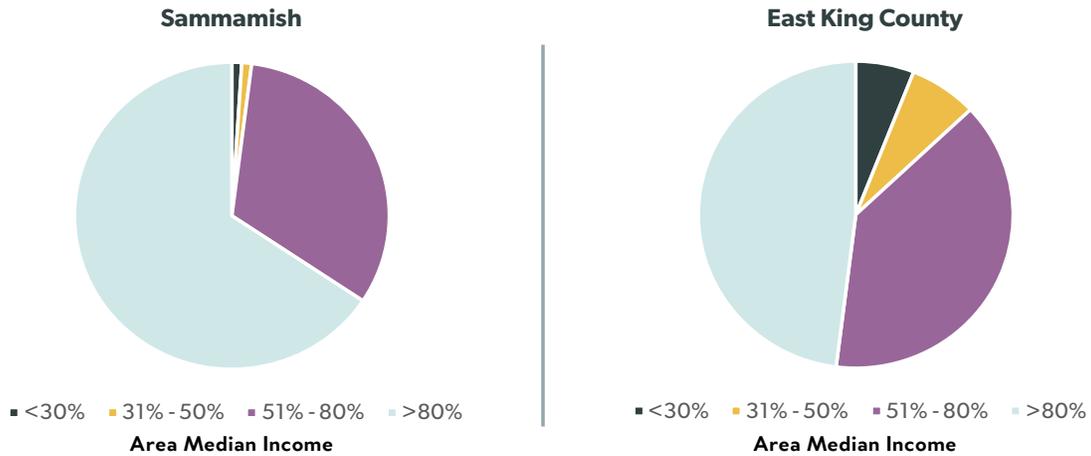
	Studio (1 person)	1 Bedroom (2 people)	2 Bedroom (3 people)	3 Bedroom (4 people)
30% AMI (Very Low Income)				
Household Income	\$20,160	\$23,040	\$25,920	\$28,800
Max. Affordable Rent	\$504	\$576	\$648	\$720
50% AMI (Low Income)				
Household Income	\$33,600	\$38,400	\$43,200	\$48,000
Max. Affordable Rent	\$840	\$960	\$1,080	\$1,200
80% AMI (Moderate Income)				
Household Income	\$53,760	\$61,440	\$69,120	\$76,800
Max. Affordable Rent	\$1,344	\$1,536	\$1,728	\$1,920

Source: A Regional Coalition for Housing (ARCH), 2017

The average monthly rent for a one bedroom apartment in East King County was \$1,673 in 2017.

The table above shows the maximum affordable rent for the three lowest income brackets in King County.

Existing Rental Affordability



Source: Comprehensive Housing Affordability Strategy, 2012

Appendix C | Housing Needs

Places - Housing Data

Housing Incomes & Affordability

	Studio (1 person)	1 Bedroom (2 people)	2 Bedroom (3 people)	3 Bedroom (4 people)
50% AMI (Low Income)				
Household Income	\$33,600	\$38,400	\$43,200	\$48,000
Max. Affordable Purchase	\$113,165	\$129,331	\$149,752	\$170,172
80% AMI (Moderate Income)				
Household Income	\$53,760	\$61,440	\$69,120	\$76,800
Max. Affordable Purchase	\$198,930	\$227,350	\$260,020	\$292,700

Source: A Regional Coalition for Housing (ARCH), 2017

The table above shows the maximum purchase price for low and moderate income brackets in King County.

Homeownership in Sammamish is no longer affordable for those with lower and moderate incomes.

Existing Homeownership Affordability

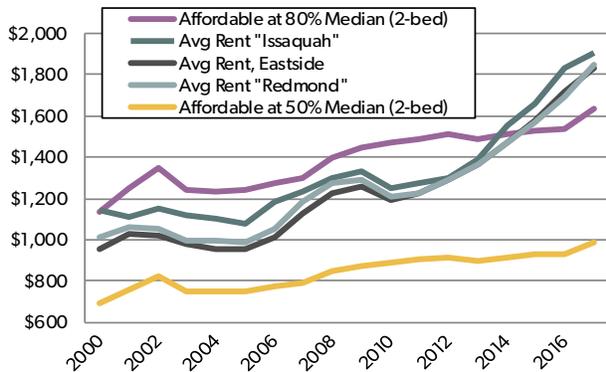


Source: Comprehensive Housing Affordability Strategy, 2012

Appendix C | Housing Needs

Places - Housing Data

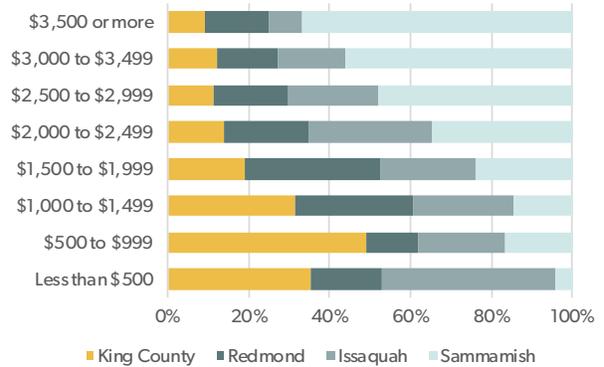
Actual & Affordable Rent in Sammamish



Source: Dupre & Scott Apartment Advisors, 2017

Redmond & Issaquah market areas include Sammamish in the chart above.

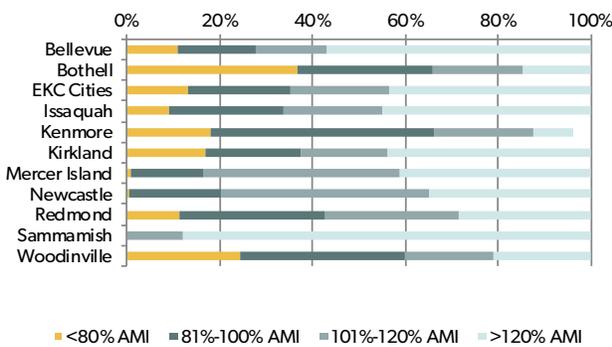
Gross Rents



Source: American Community Survey, 2016

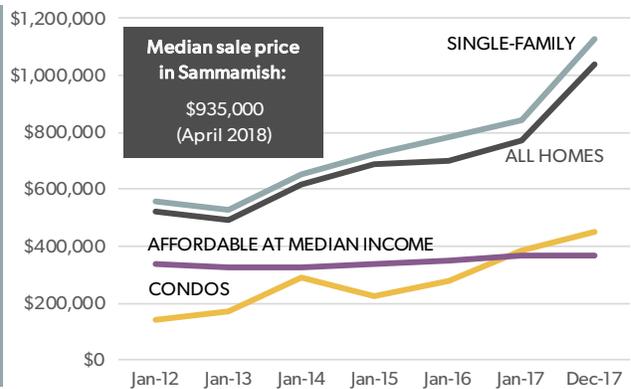
Gross rents include all housing expenses including utilities in the chart above.

Affordability of New Attached Housing Units, 1994-2015



Source: A Regional Coalition for Housing (ARCH)

Actual & Affordable Sale Prices in Sammamish

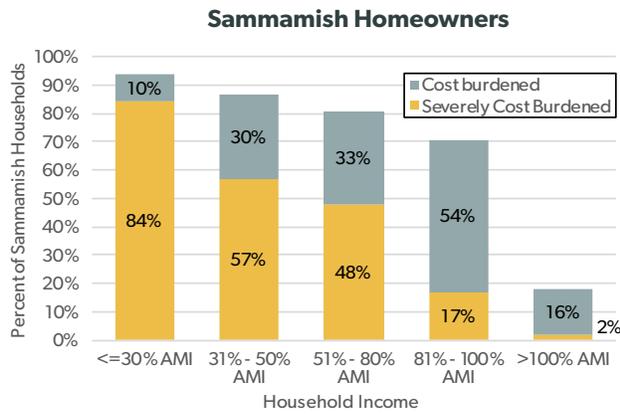


Source: Redfin, 2018

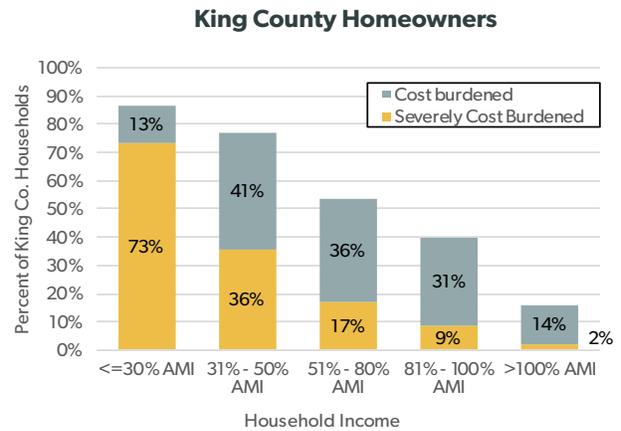
Appendix C | Housing Needs

Places - Housing Data

Housing Cost Burden for Homeowners



Source: U.S. Dept. of Housing & Urban Development, Comprehensive Housing Affordability Strategy, 2012

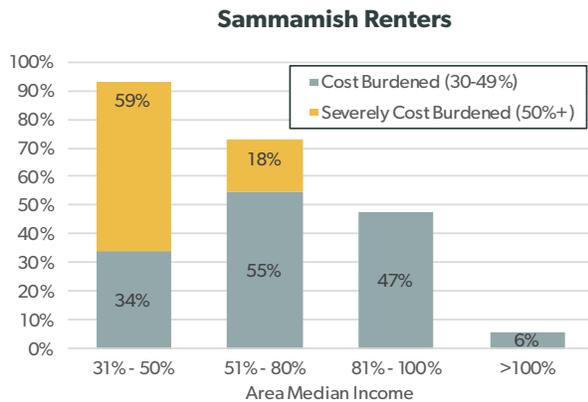


Source: U.S. Dept. of Housing & Urban Development, Comprehensive Housing Affordability Strategy, 2012

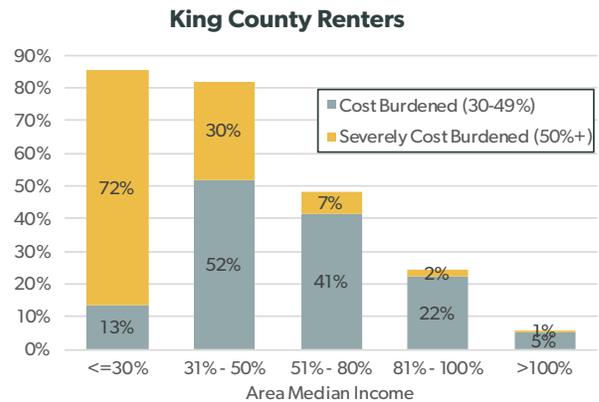
Overall, 28% of Sammamish households are housing cost burdened.

A household is housing cost burdened when it pays more than 30% of its income for housing. This means that the household may have difficulty affording other basic needs like food, transportation, and medical care. Severe cost burden means that a household is paying more than 50% of its income towards housing.

Housing Cost Burden for Renters



Source: U.S. Dept. of Housing & Urban Development, Comprehensive Housing Affordability Strategy, 2012



Source: U.S. Dept. of Housing & Urban Development, Comprehensive Housing Affordability Strategy, 2012

Appendix C | Housing Needs

Places - Housing Data

Affordable Housing Units Created in the Past 20 Years

	Low Income Units				Moderate Income Units			
	Direct Assistance	Land Use	Market	Total	Direct Assistance	Land Use	Market	Total
Bellevue	1,028	-	18	1,046	530	467	1,209	2,206
Issaquah	274	4	-	278	46	204	251	501
Kirkland	365	3	43	411	194	184	262	640
Redmond	467	14	45	526	649	564	464	1677
Sammamish	5	-	-	5	5	75	-	80
East King County	2,497	30	122	2,649	1,578	1,882	3,138	6,598

Source: A Regional Coalition for Housing (ARCH)

Direct Assistance in the chart above refers to reduced-price or donated land, funding, or fee waivers. Land Use refers to programs like density incentives, mandatory affordable units and ADUs. Market refers to market rate units that are usually studios or college housing.

Accessory Dwelling Units Constructed

	2016	Total	ADUs per 1,000 SF Detached Homes	Annual Average	Average Last 5 Years
Beaux Arts	-	2	15.5	0.2	-
Bellevue	12	135	4.5	5.9	6.0
Bothell	2	8	0.9	0.3	1.2
Clyde Hill	1	5	4.1	0.3	0.4
Hunts Point	-	-	-	-	-
Issaquah	3	44	7.4	2.0	1.8
Kenmore	5	50	8.7	3.3	3.8
Kirkland	11	54	7.5	7.0	6.6
Medina	-	1	0.8	0.1	-
Mercer Island	1	226	31.4	10.3	2.4
Newcastle	-	33	10.4	2.1	3.0
Redmond	5	18	1.7	0.8	1.4
Sammamish	2	32	1.8	2.1	3.6
Woodinville	-	3	1.1	0.1	0.4
Yarrow Point	-	-	-	-	-
EKC cities	42	711	6.1	30.9	30.6

Source: A Regional Coalition for Housing (ARCH)

Accessory Dwelling Units (ADUs)

ADUs increase housing supply without impacting neighborhood character and causing minimal disruption. The large majority of ADUs are built into homes, typically in daylight basements. ADUs support aging in place and multi-generational households but can also be used as rental units.

Appendix D | Stakeholder and Focus Group Summary

Housing Industry Input

Feedback Method	Panel discussion and Q&A with Sammamish Planning Commission
Institutions Engaged	Gina Estep (Murray Franklyn); Patrick Tippy (Catholic Housing Services); Aaron Hollingberry (Toll Brothers); Rand Redlin (Homestead Community Land Trust); Steve Yoon (Mill Creek Residential); Tim Walter (King County Housing Authority)
Summary	Panelists shared their perspectives on the range of housing strategies being explored by the Sammamish Planning Commission. In addition to providing their insights into what they think would be most effective and impactful in addressing the housing needs of Sammamish and our region, they also shared some thoughts on additional strategies and items for the City to consider.
Sammamish's Biggest Housing Needs	<p>Panelists had a range of input. Some highlighted the need for more affordable homeownership options and others discussed the need to provide more opportunities for residents to age-in-place. Others mentioned how attitudes and preferences relating to housing are changing even with suburban residents.</p> <p>All panelists agreed that there should be clear goals established related to housing development and that the strategies selected should be high impact options that work toward these goals. Finally, they agreed that all strategies should be simple and clear so that they can easily guide homeowners and developers in implementation.</p>
Strategies to Address Housing Issues	<p>There were many potential strategies that panelists thought could have a positive impact on Sammamish's long term housing needs and quality of life. These included:</p> <ul style="list-style-type: none"> • Utilizing incentives, tax exemptions and/or financing options to make it easier to build affordable housing. • Creating public/private partnerships and utilizing public lands and/or properties of faith institutions for affordable housing. • Allowing for flexible development standards and innovative housing options like cottage housing. • Preserve existing housing stock which creates opportunities for sweat equity.
Additional Thoughts Related to Housing in Sammamish	<p>Panelists encouraged the Commission to think long-term about what will lead to meaningful outcomes. They urged the City to increase the housing options available, to continually review development regulations and to avoid layering regulations. They also recommended that Sammamish be proactive about housing and consider the demands of the region and the state when thinking about the local market because they relate to one another.</p> <p>Additionally, panelists shared that for each of them, the decision to develop a project is based on the numbers (profit for market rate developers and subsidies/debt financing for affordable housing developers) and suggested that the Commission take time to understand the business model associated with each of the housing strategies.</p>

Appendix D | Stakeholder and Focus Group Summary

Social & Human Services Provider Input

Feedback Method	Online Survey and Phone Interviews
Institutions Engaged	City staff reached out to Friends of Youth, LifeWire, St. Vincent de Paul, Issaquah Food & Clothing Bank, India Association of Western Washington, Hopelink, and Issaquah Community Services. Four organizations chose to complete online surveys and two chose phone interviews.
Summary	While organizations serve a wide range of people with varying demographics, feedback from all organizations stressed not only the need for affordable housing in Sammamish (especially for those at or below 30% AMI) but also that the affordable housing be located close to public transportation that transports people to employment centers throughout the region.
Sammamish's Biggest Housing Needs	<p>Organizations reported that many of those they serve would be interested in moving to Sammamish but are unable to do so due to lack of affordable housing options and limited access to public transportation. Additionally, limited rental units and the distance from housing to employment centers and services present challenges.</p> <p>The high quality schools have attracted families of all income levels to come live in Sammamish. Several organizations report that currently in Sammamish, there are a large number of single parents living in the available affordable housing units, many of whom have fled domestic violence situations and are starting to rebuild their lives. There are also young families and young adults living in and around Sammamish that struggle with housing instability and homelessness. The distance from housing to public transportation forces many of these parents to walk several miles with their children in order to get to buses that will take them to daycare and employment.</p>
Strategies to Address Housing Issues	<p>Suggestions on how to address the housing needs mentioned above included:</p> <ul style="list-style-type: none"> • Negotiating with developers to include adequate affordable housing in new developments. • Increasing public transportation frequency and routes. • Providing indoor multicultural spaces for communities to interact. • Partnering with nonprofits during the planning process and talk with potential residents to better understand their needs. • Partnering with nonprofits to develop targeted housing (either through ARCH or by donating underutilized city land and facilities) • Providing fee waivers to make it easier for nonprofits to develop affordable housing. • Working to create a climate where city staff, local businesses, religious institutions and others are thinking creatively about how to work together to create a more divers socio-economic community.
Additional Thoughts Related to Housing in Sammamish	Rising housing costs are forcing families to cut other critical expenses like food, utilities, and other basic needs. A large majority of requests for assistance in and around Sammamish are housing related. Additionally, Issaquah Food and Clothing Bank reports a massive increase in demand for food related support programs.

Appendix D | Stakeholder and Focus Group Summary

Local Business Input

Feedback Method	Online Survey
Institutions Engaged	City staff partnered with the Sammamish Chamber of Commerce to reach out to local businesses and ask them to complete an online survey. They sent the survey to MOD Pizza, Sammamish Café, McDonald's, the YMCA, the Water District, QFC and Metropolitan Market. Four businesses chose to complete the survey.
Summary	Local businesses reported that both the lack of affordable housing as well as the limited types of housing available have a huge impact on their ability to recruit and retain good workers. This impacts their ability to maintain the quality of service and hours of operation that Sammamish residents demand.
Sammamish's Biggest Housing Needs	<p>Increasing low-cost rentals units was seen as the biggest housing need among the local businesses. The majority of their staff are commuting from areas like Everett and Renton to get to Sammamish. In order to attract them to work in Sammamish, some businesses are having to provide additional compensation to employees.</p> <p>Thinking about their employees that would be interested in living in Sammamish, the most common household types are single individuals without children, couples with children, and single parents. On average, most of these employees have an annual income of \$45,000 or less.</p>
Strategies to Address Housing Issues	<p>In addition to creating more affordable housing (particularly affordable rental housing) included:</p> <ul style="list-style-type: none"> • Partnering with Central Washington to create degree programs that attract college students to stay in Sammamish. • Consider subsidizing housing to make it affordable for those who are working in Sammamish.

Appendix D | Stakeholder and Focus Group Summary

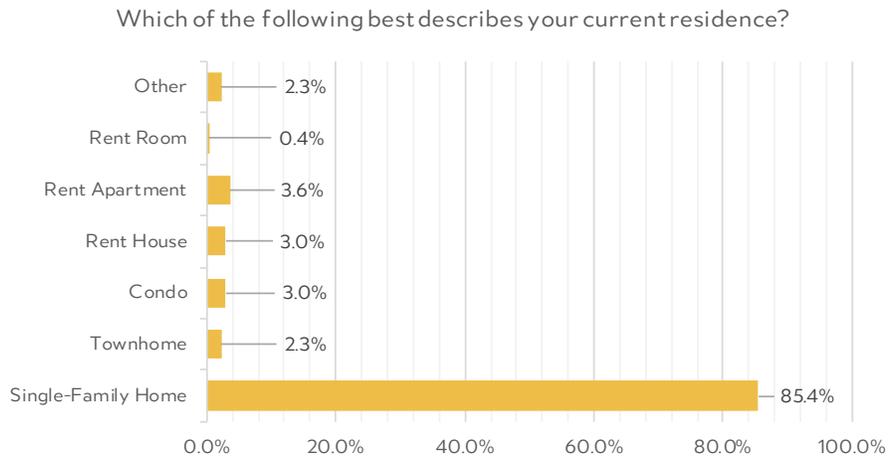
Local School Input

Feedback Method	Focus group
Institutions Engaged	A Regional Coalition for Housing (ARCH) and City staff met with staff from Lake Washington School District to discuss how the local housing market impacted their staff.
Summary	<p>Most staff and teachers in Sammamish commute from all over the region (Mill Creek, Everett, Maple Valley as well as Seattle). As surrounding areas like Fall City, Snoqualmie, North Bend, Carnation get more expensive and traffic gets worse, it's getting harder to retain teachers. There are no affordable homes in Sammamish for entry level teachers who are usually single. Additionally, there are no affordable starter homes in Sammamish for school staff that are beginning to have families.</p> <p>Sammamish schools are losing teachers annually and struggling to find staff. One school had 14 teachers leave last year, 9 of whom said it was because their commute was too long and/or they couldn't find housing to meet their needs. School staff in Sammamish have a higher percentage of people who leave after 2-4 years, which is unusual for the education field and is a loss for the school which after 2-4 years has invested a significant amount of money in teachers' professional development.</p>
Sammamish's Biggest Housing Needs	<p>A variety of housing types that are affordable including apartments, condos, and townhomes would best address the range of housing needs teachers have throughout their careers and would allow them to live in the community where they work.</p> <p>Additionally, walkable, family friendly communities that have sidewalks, playgrounds and are easily accessible by a variety of transportation modes (bikes, walking, buses) would likely also appeal to most school staff, especially those with children.</p>
Strategies to Address Housing Issues	In addition to creating more affordable housing (particularly affordable homeownership for young families), explore the idea of prioritized affordable housing or special housing units for public employees working in Sammamish. There is sufficient demand from the local workforce and there are some successful program models operating in California that could be evaluated for replication.
Additional Thoughts Related to Housing in Sammamish	People move to Sammamish because of the high quality schools but the expensive housing market and limited housing stock is putting school quality at risk as it is becoming increasingly difficult for the district and schools to attract and retain high quality teachers and staff.

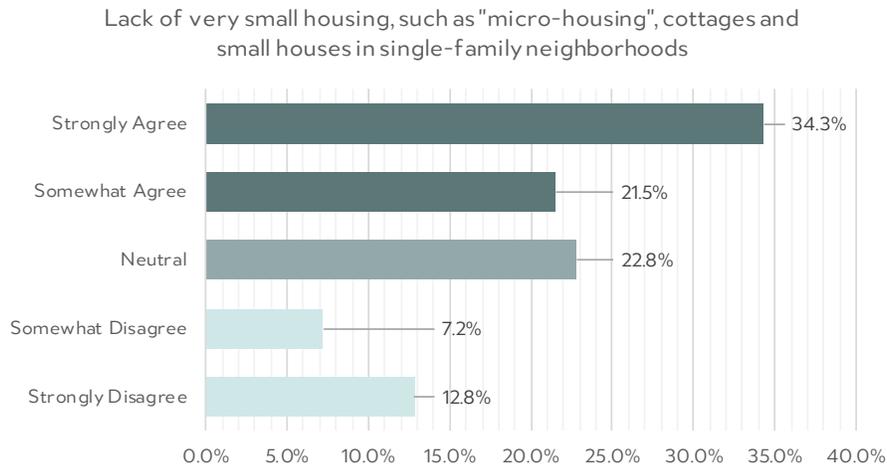
Appendix E | Community Survey

The City heard from 474 individuals responding to an online survey allowing staff to gauge the level of understanding and the general impressions of the public on the topic of housing. The community survey ran from March 19 through April 9, 2018 and provided the City with a better understanding of community perspectives and desires.

Survey Results

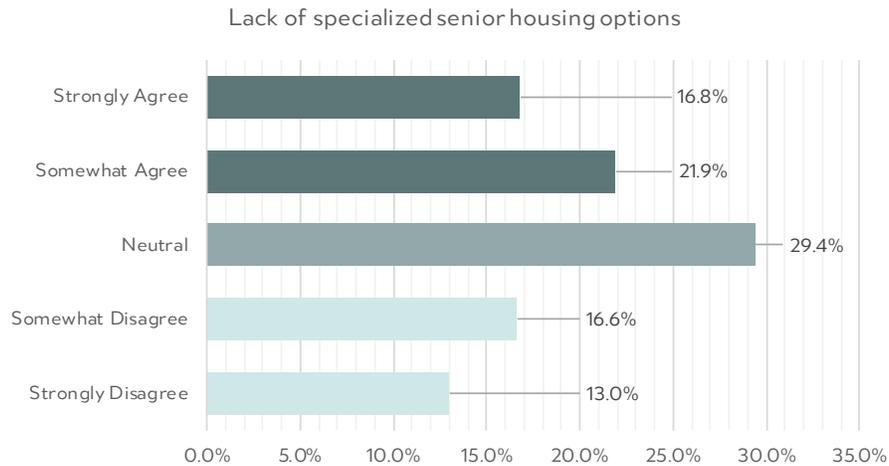
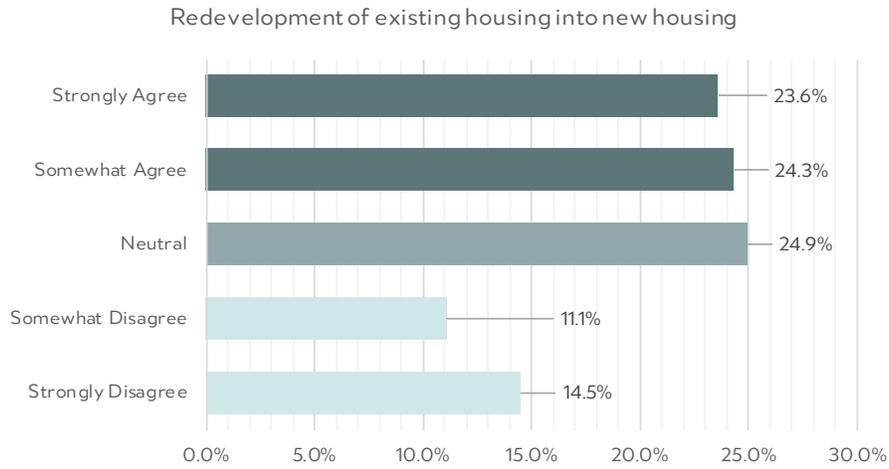


Which of these statements reflect Sammamish today?



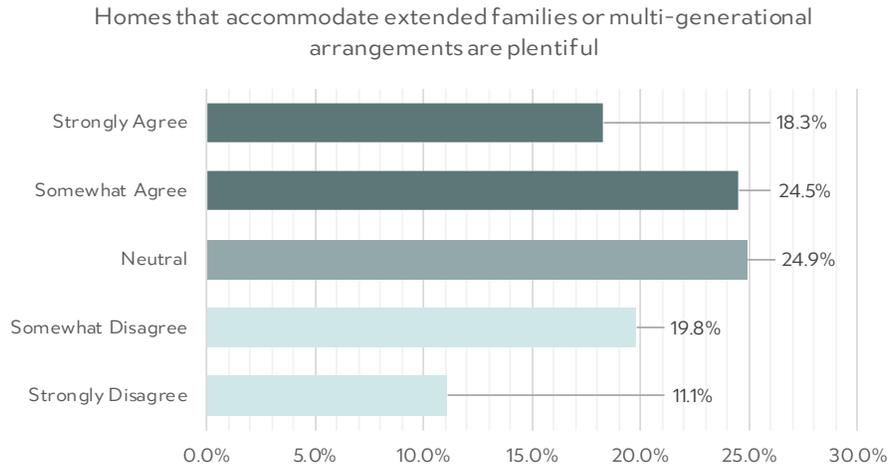
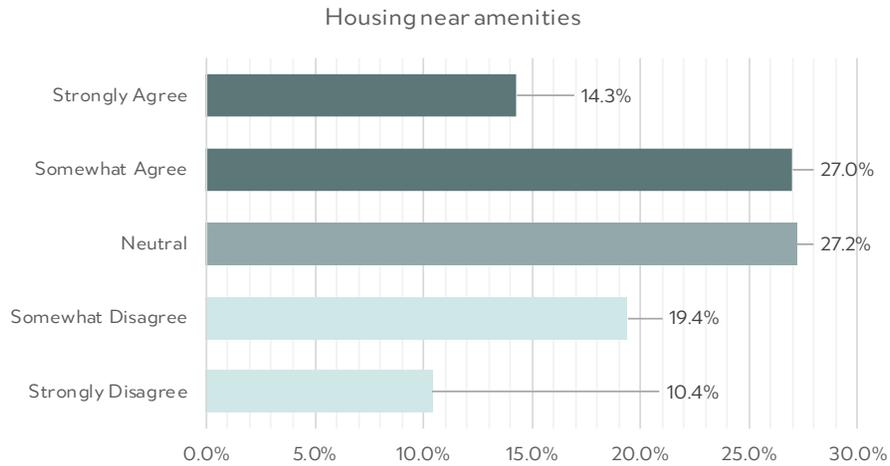
Appendix E | Community Survey

Which of these statements reflect Sammamish today? (continued)



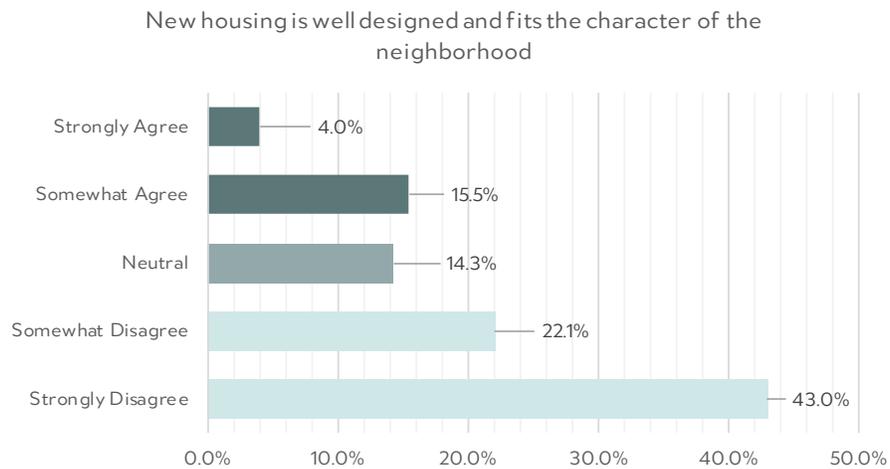
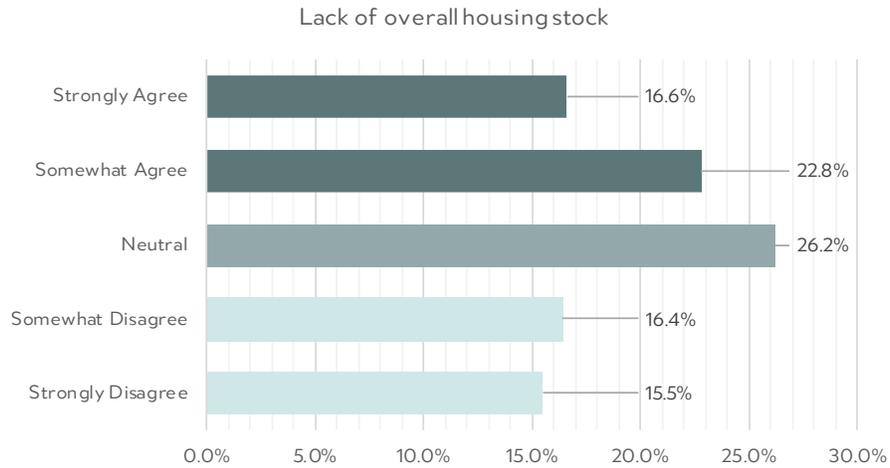
Appendix E | Community Survey

Which of these statements reflect Sammamish today? (continued)



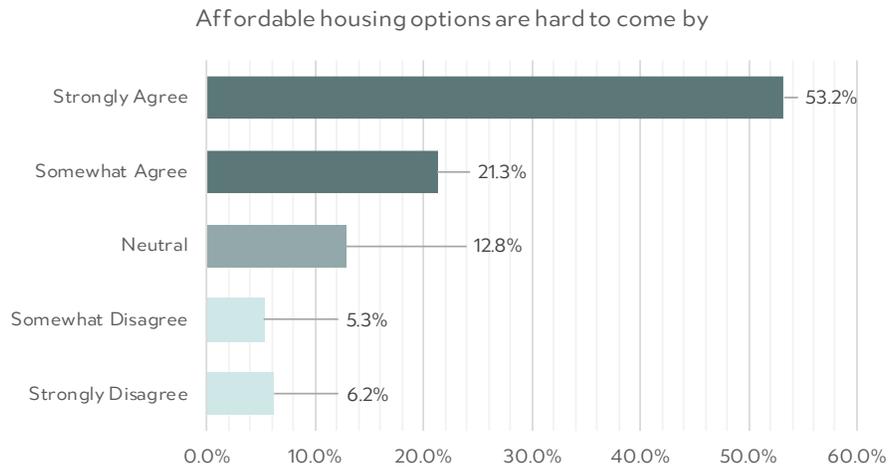
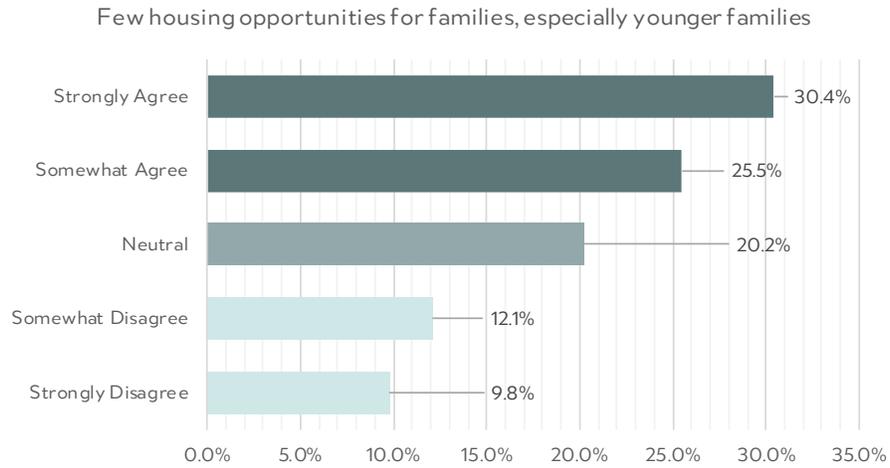
Appendix E | Community Survey

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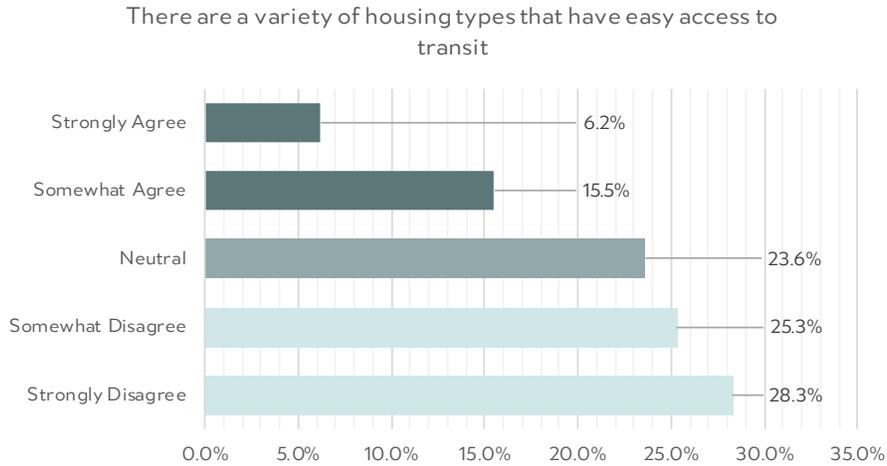
Appendix E | Community Survey

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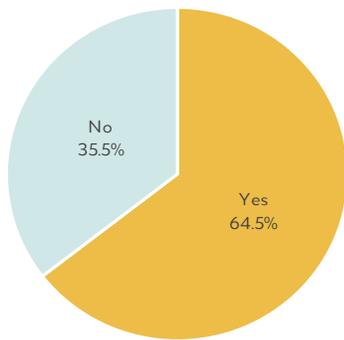


Appendix E | Community Survey

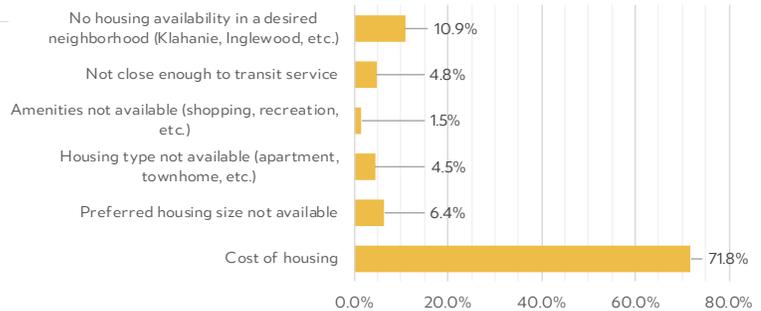
Which of these statements reflect Sammamish today? (continued)



Have you, or anyone you know, had trouble finding a place to live in Sammamish in the last five years?

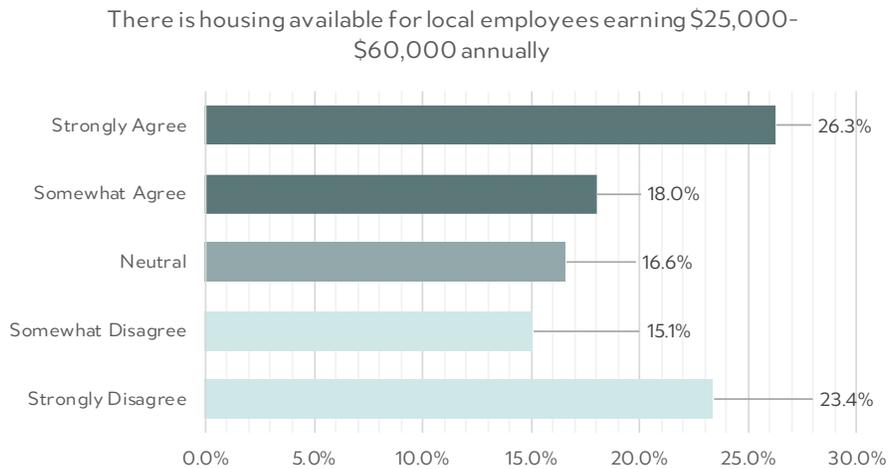
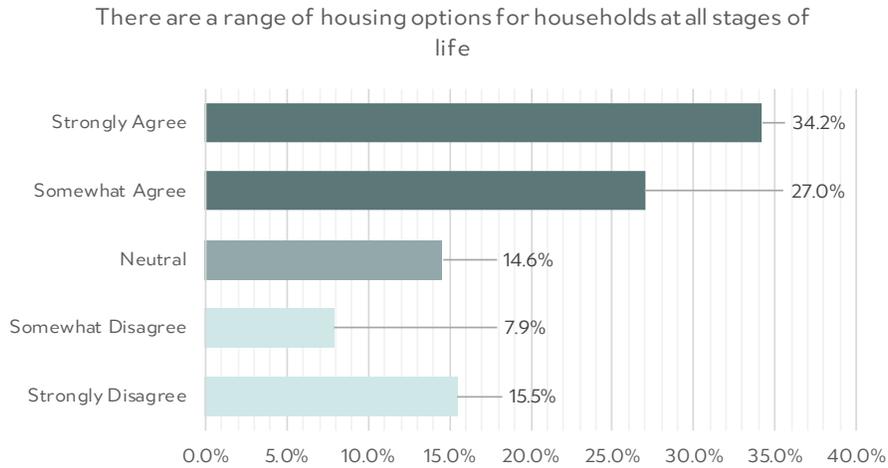


If yes, what kept you, or someone you know, from finding a place to live?



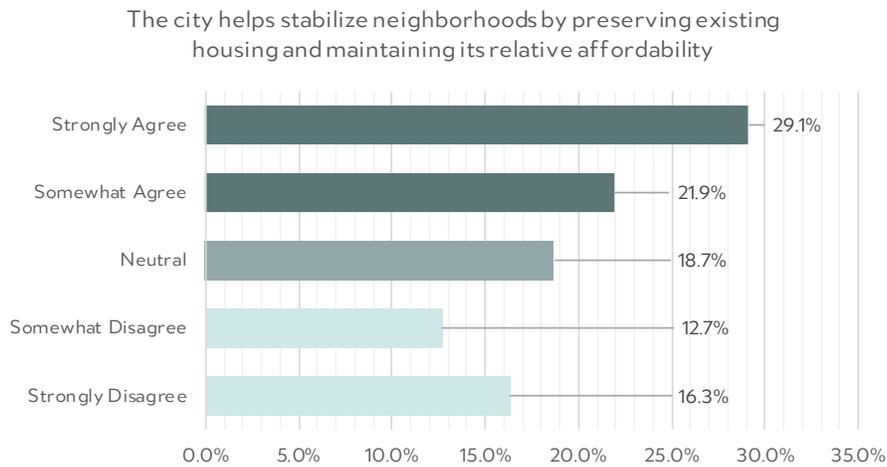
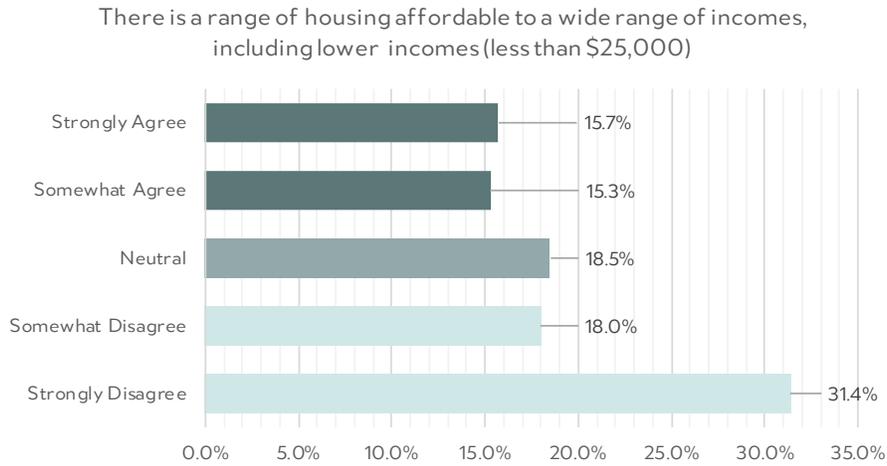
Appendix E | Community Survey

Which of these statements are successful outcomes for Sammamish in the next 20 years?



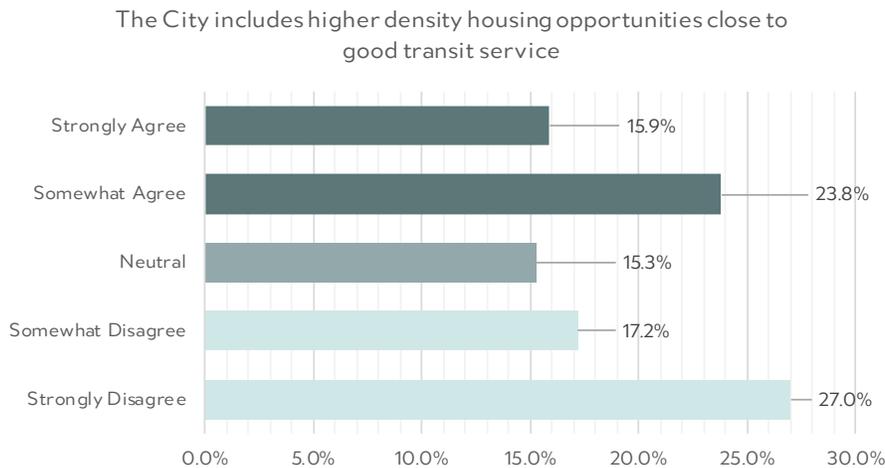
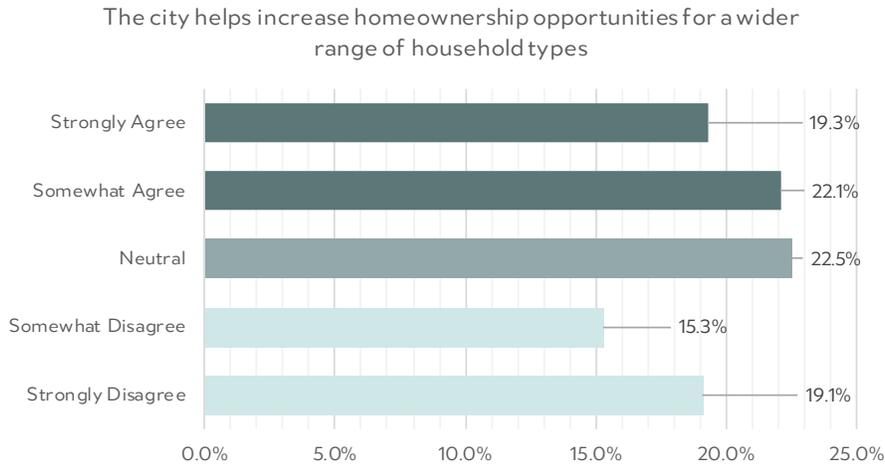
Appendix E | Community Survey

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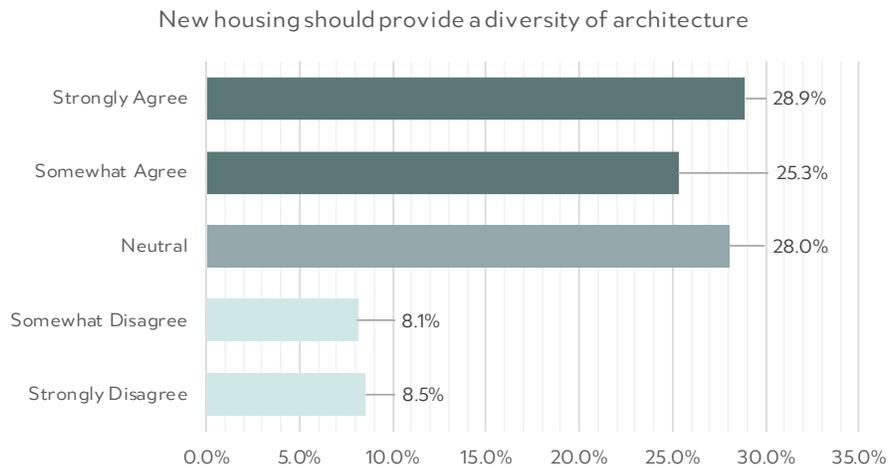
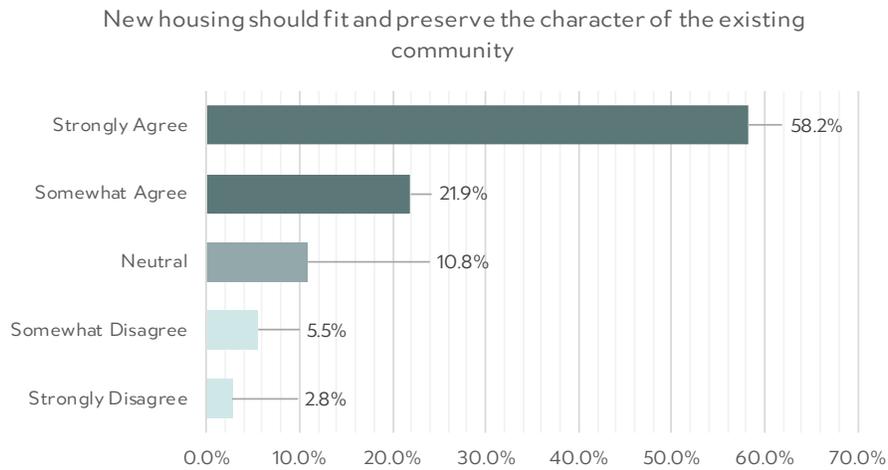
Appendix E | Community Survey

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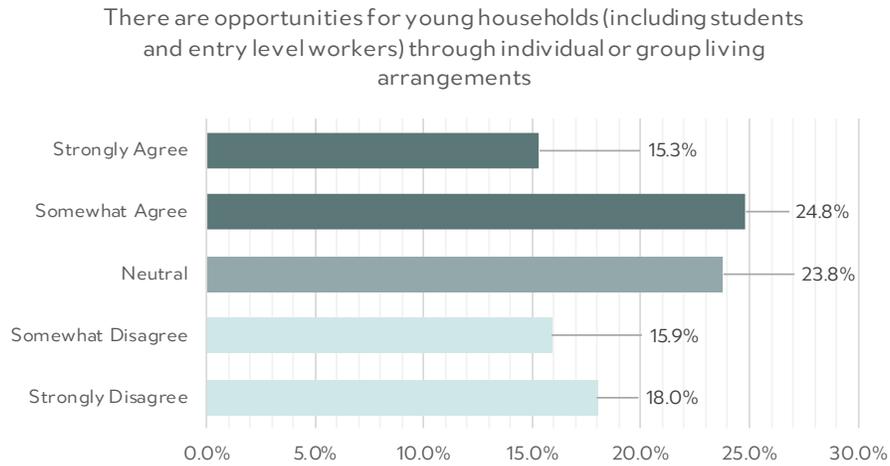
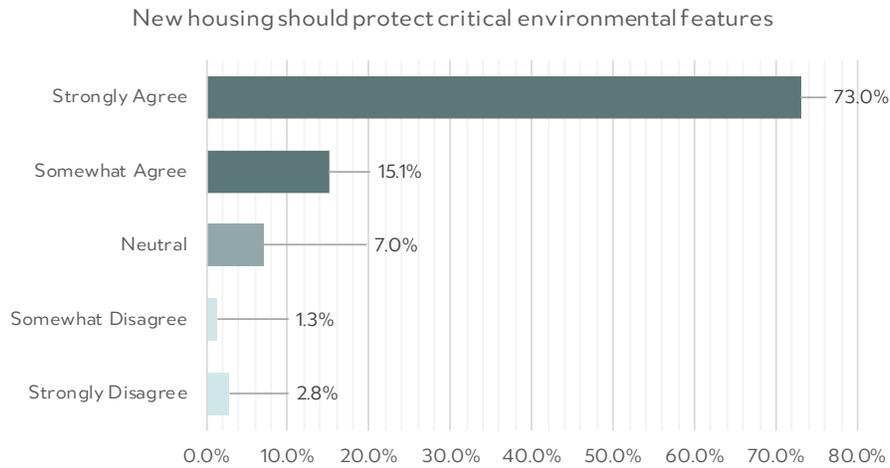
Appendix E | Community Survey

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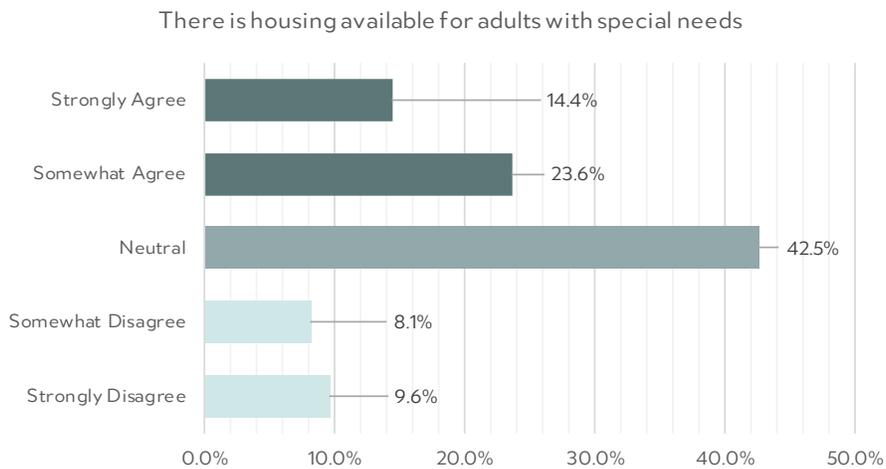
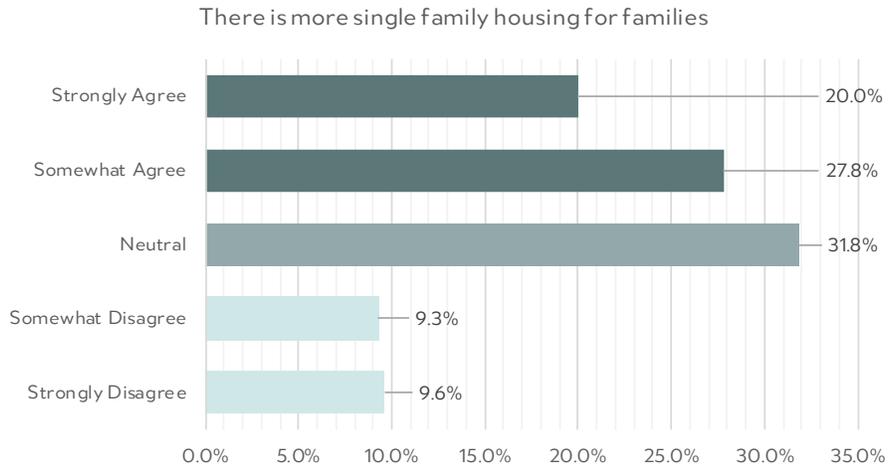
Appendix E | Community Survey

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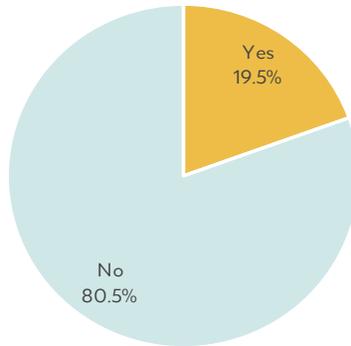
Appendix E | Community Survey

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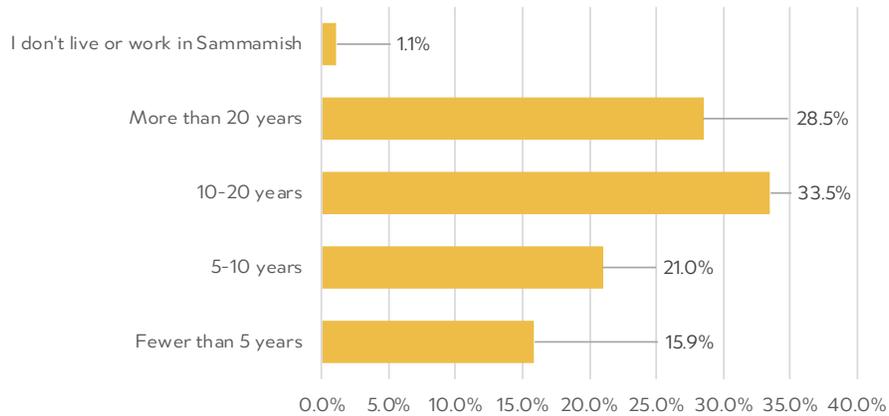


Appendix E | Community Survey

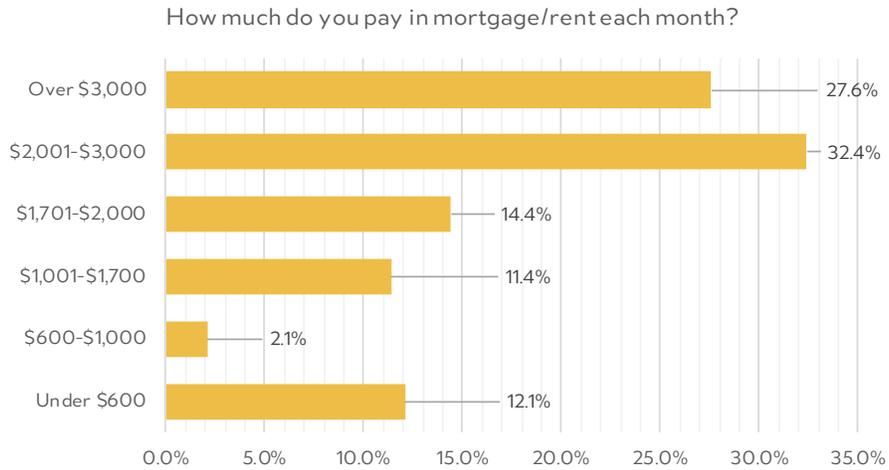
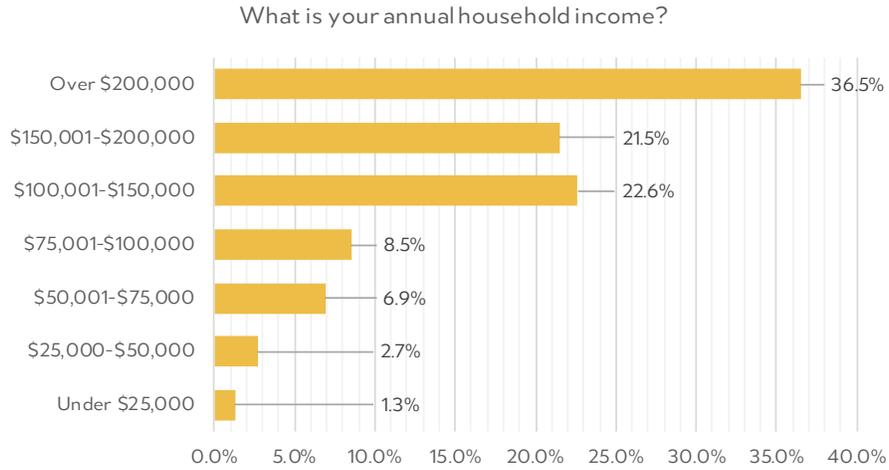
Do you work in Sammamish?



How long have you lived/worked in Sammamish?



Appendix E | Community Survey



Appendix F | Community Feedback

Public Comments

Feedback Method	Comment cards completed at Community Workshop on April 25, 2018, emails received, and presentations conducted during public comment at Planning Commission meetings
Summary	Residents shared a range of concerns, ideas, and suggestions related to housing needs, development standards, and transportation issues impacting Sammamish residents.
Sammamish's Biggest Housing Needs	<p>The needs of seniors in Sammamish was the most common area of concern among feedback received. This included concerns about the lack of housing options that allow seniors to age-in-place, as well as one-story housing options adaptable for seniors and those with disabilities. Additionally, there were comments about tax-relief for seniors with limited financial means.</p> <p>Transportation was another key theme. This included how Sammamish residents were going to access the light rail as well as concerns about traffic congestion on the Sammamish Plateau, particularly as it becomes more dense over time.</p> <p>Finally, there were concerns about the physical appearance of housing and commercial development. Some were concerned that the style of new construction didn't blend well with the area. Others were concerned about dense housing on small lots.</p>
Strategies to Address Housing Issues	<p>There were many suggestions for what the City could do to address housing and related needs in Sammamish. These included:</p> <ul style="list-style-type: none"> • Provide utility/property tax breaks for seniors with limited incomes; • Allow for larger Accessory Dwelling Units (ADUs); • Simplify and reduce the cost of permitting and mitigation for new construction; • Encourage the development of single floor condos with enhancements for seniors; • Create condos with elevators and secure parking for the elderly/disabled that are located near amenities; • Provide a range of housing options for seniors, recognizing that some seniors prefer to live in communities with a diverse range of ages; • Build housing on bigger lots to reduce density; • Develop architectural standards for all multi-family housing and commercial spaces to ensure the style reflects the area and that it has lasting appeal; • Focus on amending the Comprehensive Plan to increase density in Town Center and down-zone other neighborhoods; • Provide more transit-oriented housing options; and • Consider code changes or incentives that allow people to experiment with new technologies to address issues related to stormwater and other areas and allow construction in restricted areas.

Appendix G | Gap Analysis

After the Sammamish Planning Commissioners and Sammamish Human Services Commissioners reviewed extensive demographic and housing data provided by A Regional Coalition for Housing (ARCH) and City staff, they asked City staff to use the data to identify unmet areas of housing need currently in Sammamish.

Using two charts, one of which compared Household Types and the other of which compared Housing Types, City staff noted categories that had a shortage of housing as well as categories that had an adequate supply. Once this was complete, ARCH and City Staff led the Planning Commissioners and Sammamish Human Services Commissioners in a Housing Gap Analysis to help provide some guidance as Commissioners prioritized the strategies to be included in Sammamish Home Grown.

City staff asked Commissioners to identify the top three categories in each chart that they felt were the most important to address in the Housing Strategy Plan. The results of this exercise can be seen on the following pages of Appendix G.

Following the exercise, Commissioners participated in a discussion on housing strategies that the City can use to address housing gaps throughout Sammamish.

Appendix G | Gap Analysis

Household Type	Any Income	Very Low Income	Low Income	Moderate Income	Middle Income	Upper Income
Living Alone Includes young adults & other singles 9% of Sammamish & 31% of King County	1	☀	☀	☀	☀	
Couples without Children Includes empty-nesters & other couples 32% of Sammamish & 26% of King County	4	☀	☀	☀		
Couples with Children Includes small families & large families 49% of Sammamish & 21% of King County	2	1	☀	3	1	
Single Parent Households 5% of Sammamish & 7% of King County	5	1	☀	☀	☀	
Seniors 1 or 2 person households 12% of Sammamish & 20% of King County	11	☀	1	☀		
Extended Families Multi-generational households 1% of Sammamish & 2% of King County	2	☀	☀	☀		
Unrelated Roommates 6% of Sammamish & 16% of King County		☀	☀	☀		
People with Disabilities Those needing on-site services	4					
People Experiencing Homelessness	5					
Transitional Populations						

2 Commissioner priority (including number of Commissioner votes)

5 Staff identified as shortage of housing & Commissioner priority (including number of Commissioner votes)

☀ Staff identified as shortage of housing

Appendix G | Gap Analysis

Housing Type	Any Income	Very Low Income	Low Income	Moderate Income	Middle Income	Upper Income
Single Family Detached Ownership 78% of Sammamish & 47% of King County	10	☀️	☀️	☀️	☀️	
Single Family Attached Ownership; townhomes, duplexes, etc. 4% of Sammamish & 4% of King County		☀️	☀️	☀️		
Multi-family Rental	8	1	☀️	3	1	
Homes Under 1,000 SF Ownership & rental; ADUs, cottages, etc.	5	1	☀️	☀️		
Senior Housing Ownership & rental; independent & assisted living, nursing homes, etc.	6	☀️	1	☀️	☀️	
Transit-Oriented Ownership & rental; located near bus routes	1	☀️	☀️	☀️		
Walkable to Services & Employment	1	☀️	☀️	☀️		
Emergency Shelter	3					
Group Homes	3					
College Student Housing						

2 Commissioner priority (including number of Commissioner votes)

5 Staff identified as shortage of housing & Commissioner priority (including number of Commissioner votes)

☀️ Staff identified as shortage of housing

Appendix H | Housing Strategy Matrix

STRATEGY	EXAMPLES AND CONSIDERATIONS FOR FURTHER EVALUATION	TYPE OF ACTION (City)	RELATED COMP PLAN GOALS/ POLICIES	30% AMI	50% AMI	80% AMI	120% AMI	MARKET RATE	PUBLIC INPUT	TIMELINESS	PRIORITY
A. Housing Theme - Neighborhood Vitality and Character											
A.1	Community Design Standards - Develop community design standards to reflect the desired characteristics of each neighborhood planning area or designated community center.	<ul style="list-style-type: none"> • Design criteria for SF dwellings on individual lots. • Compatibility with surrounding uses. • Buildings of a scale and character appropriate to the site. • Personal safety and reduction of vandalism. • Landscape and open space requirements that residential development fit in with the natural landscape; protects the privacy of other residences; and maintains the character of the nearby neighborhoods. • Sidewalks and Trails Systems that connect neighborhoods internally and externally. • Streetscape (including arterials): How homes appear to motorists and pedestrians (looking like a small town, use artwork/discourage garage lined streets). • Promote public notification and community participation/input. • Protect critical environmental features. • Requirements for design variety (e.g. varied setback) while providing for designs with distinctive local character. 	Regulatory	H.1.1, H.2.2, H.1.1, H.1.4, LU.1, LU.1.4					Survey		High
A.2	Sub-Area Plans - Develop Subarea Plans for central neighborhoods (i.e. the Inglewood, Pine Lake, Klahanie Centers) as well as other neighborhoods.	<ul style="list-style-type: none"> • Reflect local geography and the environment including greenbelts, parks, and tree canopy considerations. • Provide zoning variety rather than blanket regulations. • Opportunity to pursue multiple housing strategies in one planning effort, such as B.1 Expanding Housing Choice. • Promote meaningful community participation to develop effective zoning and development regulations. • Use buffers and greenbelts to promote non-motorized linkages. • Encourage the use of TDRs to preserve areas of the City while focusing density in sub-area(s). • Target infrastructure improvements in sub-areas to allow for non-motorized enhancements and transit. • Increase the production of multi-family and condo development. • Consider future planning trends in the development of sub-area plans to meet neighborhood needs. • Require that all sub-area plans, Town Center, commercial centers, and residential neighborhoods be developed or evaluated along with the next Comprehensive Plan Update and shall include housing balance and densities that reflect future trends as well as the needs of local citizens. • Prioritize all planning, incentives and related City ordinance changes in a way that ensures any increases in total housing planning or required in the City are focused on multi-family housing in centers and planned neighborhood sub-areas, not in additional new single-family homes. • Focus on provision of net-zero buildings and building techniques in Sammamish. • Focus on community and environmental health in sub-area planning. 	Regulatory	H.1.2, LU.1, LU.3.2							High
A.3	Subdivision Code Update	<p>Provisions related to home design:</p> <ul style="list-style-type: none"> • Adjacent residential structures provide design variety including façade variation, setback, and floor plan mix. • Utilize FAR requirements for Single Family Homes. • Reevaluation of dimensional standards related to home separation and height (e.g. the method for calculating maximum height). <p>Provisions related to neighborhood design:</p> <ul style="list-style-type: none"> • Allow clustering of new residential development as a means of protecting environmentally sensitive areas. • Pedestrian and/or transit connectivity improvements and enhanced public spaces. • Review street tree standards within neighborhoods. • Review minimum street widths. • Require variety of housing sizes in long subdivisions (e.g. for each 5BR there must be one 3BR). • Provide incentives to include sustainable options such as rain gardens, solar panels, pollinator friendly landscaping, etc. • Encourage community artwork in new neighborhoods via incentives or offsets. 	Regulatory	H.1.1, LU.1.1							High

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A. Housing Theme - Neighborhood Vitality and Character (continued)											
A.4	Housing Repair and Preservation - Promote preservation of existing housing by City support of organizations and programs involved in housing repair and education.	<ul style="list-style-type: none"> Partner with the King County Housing Repair Program or non-profit organizations such as Rebuilding Together to assist low-income residents maintain and repair the health and safety features of their homes. Educating the community about Housing Repair programs through community fairs, brochures, City website etc. (including language resources). Revise property maintenance codes and/or increase enforcement. Explore if other community organizations can assist with housing repairs. Support the preservation of the City's historically significant housing. 	Other Support/Regulatory	H.1.2, H.1.3, LU.10.1, LU.10.3					Survey		Medium
A.5	Provide Infrastructure Improvements that contribute to Neighborhood Enhancement	<ul style="list-style-type: none"> Regular infrastructure maintenance in residential neighborhoods. Provide support for individuals and organizations that promote neighborhood enhancement and public art. Pedestrian and/or transit connectivity improvements and enhanced public spaces (e.g. create buffer green spaces around new developments). Implement a coordinated program with Sammamish Police to dedicate resources to neighborhood patrols with focus on speed enforcement. Work with PSE to review and correct locations with missing streetlights in residential neighborhoods. Consider that retention ponds be designed to enhance the natural surroundings and the proposed development, creating an amenity that is both safe and attractive. 	Other Support/Funding	H.1.2, H.1.4							Medium
A.6	Compatible Infill in Transition Areas & Areas with Certain Services - Develop Community Design Standards for compatible infill, especially in areas which (1) transition between SF residential and other uses or densities; (2) are served by an arterial street system with sidewalks; (3) are located within one quarter mile of a neighborhood park or recreation area; (4) have nearby pedestrian access to public transit services; and (5) allow access by service alleys when compatible with topography.	<ul style="list-style-type: none"> Require that new developments that physically connect to existing neighborhoods maintain street types at connection. Natural speed and features must be maintained at connecting roadways. 	Regulatory	LU.1.2, LU.2.1, LU.2.8							
A.7	Community Education/Awareness Activities to enhance neighborhood/community character.	<ul style="list-style-type: none"> Educational program for neighborhoods to encourage earthquake preparedness: bracing water heaters, preparedness kits, etc. Educational program for neighborhoods that may want to consider converting to secure deliver mailboxes. Allocate funding for neighborhood events that promote safety, education, and/or community celebrations. Where possible, include (as appropriate) a member of the Samm. PD, Eastside Fire, or City Representative to Develop and maintain a list of all active neighborhood associations including contact information. Require new developments to comply. 	Other Support/Funding	H.1.2							

Appendix H | Housing Strategy Matrix

STRATEGY	EXAMPLES AND CONSIDERATIONS FOR FURTHER EVALUATION	TYPE OF ACTION (City)	RELATED COMP PLAN GOALS/ POLICIES	30% AMI	50% AMI	80% AMI	120% AMI	MARKET RATE	PUBLIC INPUT	TIMELINESS	PRIORITY
B. Housing Theme - Housing Supply and Variety											
B.1	<p>Incentives to Expand Housing Choice - Provide incentives for diverse housing opportunities that meet community needs.</p> <p>Housing to consider include:</p> <ul style="list-style-type: none"> Diverse housing opportunities in City centers that may include MF, mixed use and mixed income residential located close to services and arterials (e.g. Inglewood, Pine Lake, the Sammamish Commons SSA, and properties along 228th that may be affected by the Sammamish Commons). Incentives may be considered for community friendly development in centers, such as innovative design, walkway connections, public open spaces, below grade parking and ground floor commercial. Affordable or Workforce Housing including Multi-Family close to services and arterials, such as near Inglewood Center, Pine Lake Center, and Sammamish Commons SSA. <p>Incentives to consider include:</p> <ul style="list-style-type: none"> Flexible development standards, e.g. reduced/flexible minimum lot area, setbacks, lot dimensions, height regulations or transitional area buffers. Provide residential density incentives where project demonstrates clear and compelling need and public benefit. Height incentives, e.g. allowing modified Type V wood frame construction up to 5 stories in R-6 & R-8 (current limits 35'); R-12 & R-18 (current limits 60'). Innovative parking designs. Strategic capital investments, infrastructure improvements. State provision (Chapter 84.14 RCW) to allow 10 year multifamily tax exemptions in Urban Centers. Permit expediting, streamlined administrative process. 	Regulatory	H.2.2, H.2.5						Builders; Survey; Schools; Businesses; Human Srv. Orgs		High
B.2	<p>ADUs - Track production of ADUs and evaluate effectiveness of land use regulations in encouraging production while balancing maintaining neighborhood compatibility. Explore other actions for encouraging additional creation.</p> <p>Streamlined permits.</p> <ul style="list-style-type: none"> Revise existing ADU regulations (more flexible, less restrictive, reduce procedural requirements) to encourage additional ADU creation while addressing neighborhood compatibility. Include evaluation of, and potentially reducing parking requirements. Make ADU permits available on mybuildingpermit.gov. Set goal for ADUs (e.g. 5% of single-family lots within 10 years). No separate utility hook-ups for ADUs. Develop education and community outreach efforts to increase awareness of ADUs. Look at VRBO and Airbnb and impact on ADUs. 	Regulatory/ Other Support	H.2.6						Affordable Housing Dev's		High
B.3	<p>Mixed Use Design Standards - Develop mixed use design standards and development regulations.</p> <ul style="list-style-type: none"> Attractive street fronts with human scale. Connecting walkways. Horizontal façade regulations to ensure variation in facade, rooflines and other building design features to give a residential scale and identity. Adaptive re-use of existing structures. Innovative design techniques. Promote public notification and community participation/input. 	Regulatory	H.2.4, H.2.5, H.1.4, LU.3								High
B.4	<p>Transit Oriented Housing Development - Consider potential sites and appropriateness of land use regulations that could allow for Transit Oriented Housing Development (TOHD) near existing or planned transportation facilities.</p>	Regulatory	H.2.4, LU.2.8, LU.3.1						Schools; Businesses; Human Srv. Orgs		High
B.5	<p>Criteria to Allow MF Zoning Increase - Establish criteria for evaluating rezone requests that would establish "demonstration of a clear and compelling need and public benefit"; as well as location criteria; e.g. should be located close to arterials served by public transit and within walking distance of commercial activities, parks and recreational</p> <p>• Improve docket process for screening rezone applications to based on community goals/needs.</p>	Regulatory	H.2.3						Schools; Businesses; Human Srv. Orgs		Medium

Appendix H | Housing Strategy Matrix

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B. Housing Theme - Housing Supply and Variety (continued)											
B.6	Innovative Housing - Provide regulatory flexibility to allow innovative housing compatible with SF neighborhoods or SF transition areas. Housing types may include accessory units, small lot SF, attached SF, carriage houses or cottages, townhouses, manufactured housing; and multiplexes ("great-house" that resembles a SF unit).	Regulatory	H.2.5, H.2.6, H.2.7						Builders; Schools		Medium; Monitor
B.7	Growth Phasing for Residential Development - Adopt residential development growth phasing that guides the location and timing of residential growth, recognizing environmental capacities and level of service standards, while providing for residential housing targets, including affordable housing. Account for on-going review.	Regulatory	H.2.1, LU.5								
B.8	SEPA Planned Action EIS tool - Encourage the implementation of SEPA Planned Action EIS where appropriate to streamline development in denser areas of the City.	Regulatory	H.3.4								
B.9	Minimum Density Requirements - Adopt minimum density requirements to the R-8, R-18, NB, CB and O zones.	Regulatory	H.2.10, LU.2.3								
B.10	SEPA flexibilities - Review the allowed thresholds for categorical exemptions.	Regulatory	H.3.4								
B.11	Construction Standards - Allow pre-fabricated and new building technologies, e.g. cross-laminated	Regulatory	H.2.8								
B.12	Off-street Parking Policies and Standards - Review the benefits or impacts of transit access (using special studies).	Regulatory	H.2.8, LU.2.3						Builders		
B.13	Ground floor commercial requirements in mixed-use zones.	Regulatory	H.2.4								
B.14	Capital Investments to Support Mixed-Use and Mixed Income Housing - Include investment strategies, e.g. planned and existing infrastructure, for Town Center planning area that adequately encourages mixed use and mixed income residential neighborhoods.	Funding	H.2.4, CF.4.7						Schools; Businesses; Human Srv. Orgs		
B.15	Technical Assistance and Education - Provide technical assistance to establish innovative and diverse housing concepts.	Other Support	H.3.5								

Appendix H | Housing Strategy Matrix

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C. Housing Theme - Housing Affordability											
REGULATORY											
C.1	Dispersed Affordable Housing - Through zoning and subarea planning ensure that affordable housing is dispersed throughout the community.	Incorporate affordable housing into market rate development through land use tools and other city incentives. • Seek to provide funding assistance to affordable housing located in different areas of the city. • Promote preservation of existing, relatively affordable, market-rate homes.	Regulatory	H.3.7					Schools; Businesses; Human Srv. Orgs		High
C.2	Criteria for Rezones Requiring Affordable Housing - Establish standards and criteria for rezones to require the provision of affordable housing on- or off-site.	• Demonstrate a clear and compelling need and public benefit. • Consider alternative means of compliance. • Combine with other incentives (e.g. fee waivers, short term property tax incentives) in order to achieve a greater level of affordability.	Regulatory	H.3.3					Builders; Affordable Housing Dev's; Schools; Businesses; Human Srv. Orgs		High
C.3	Zoning to Allow Range of Housing Affordability - Establish a range of residential densities to meet community housing needs and considering compatibility with the character of the City.	• Create provisions for shared housing, e.g. rooming/boarded houses. • Emphasize family-sized affordable units. • Support use of-faith communities' property to provide shelter and/or affordable housing on surplus land.	Regulatory	H.3, H.4.2, LU.1.1					Builders		High
C.4	Procedures and Regulations - Streamline review procedures and regulation to minimize unnecessary costs and time delays. Balance this objective with maintaining opportunities for public involvement and review, public safety, and other explicitly stated City policies.	• Fees. Evaluate the cumulative impact of fees, including off site mitigation, to reduce negative impacts to housing costs without unduly compromising environmental protection, public safety, design, and public review. • Permit process. Evaluate timeliness of permit process to reduce negative impacts to housing costs without unduly compromising environmental protection, public safety, design, and public review. • Expedite permitting for projects with affordable housing. • Review land use code for redundant or overly restrictive regulations, particularly those which result in increased housing costs. Examples may include: allow rounding up of mf units at a lower fraction; increasing the distance between streetlights, reducing rights-of-way and street widths. • Review administrative procedures for ease of administration and consistency with procedures used in other jurisdictions. • Promote location-efficient and energy-efficient housing choices through incentives and other means. • Create a rental housing inspection program. • Consider limitations on condominium conversions. • Reduce parking requirements for projects with affordable housing.	Regulatory	H.2.8 H.2.12 H.3.4					Builders; Survey; Schools; Businesses; Human Srv. Orgs		
C.6	ARCH Housing Trust Fund - Participate in local, interjurisdictional programs, such as the ARCH Housing Trust Fund, to coordinate and distribute funding of affordable and special needs housing.	• Rental housing affordable to lower income local employees, including preserving existing housing. • Assistance for ownership programs such as Habitat for Humanity and down payment assistance loans. • Grants to organizations for special needs housing.	Funding	H.5.3					Affordable Housing Dev's; Human Srv. Orgs		High
C.7	Public Land Survey - Develop and maintain an inventory of surplus and underutilized public lands. Review survey to determine if such lands are suitable for housing and other public uses.	• Evaluate all forms of public land, including state and county owned property. • Consider shared use with housing and other public use on underutilized public property (e.g. park and ride).	Other Support/ Funding	H.3.9					Builders; Affordable Housing Dev's; Human Srv. Orgs		High
C.8	Support the Preservation of Existing Affordable Housing - Identify the most strategic opportunities for preserving existing properties, e.g. location, condition, bank-owned, growth areas.	• Transfer of Development Rights (TDRs). • Loans for upgrade/weatherization/energy efficiency improvements in exchange for affordability requirements. • Assist affordable housing agencies with purchasing existing housing to rehabilitate and preserve affordability.	Other Support	H.3.2, H.3.6					Builders; Affordable Housing Dev's		High

Appendix H | Housing Strategy Matrix

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C. Housing Theme - Housing Affordability (continued)											
DIRECT ASSISTANCE											
C.9	Applications to Other Funders - Provide support for funding applications and other efforts by market and not-for-profit developers to build new or rehabilitate existing housing. Support efforts of affordable housing agencies and health and human service agencies to address housing needs for all economic segments of the population.	Other Support	H.3.6						Human Srv. Orgs		Medium
C.10	Identify New Revenue for Direct Assistance for affordable housing - Explore potential for a more dedicated revenue source that could be targeted toward affordable housing.	Funding	H.3.6						Builders; Human Srv. Orgs		Medium
C.11	Potential Uses of Local Resources	Funding	H.3.5, H.3.6						Human Srv. Orgs		
C.12	Support Ownership Opportunities - Support innovative programs to support ownership housing for low, moderate, and middle income households (e.g. owner-built housing, shared housing, 1st time homebuyer assistance programs, manufactured housing communities, price-restricted ownership, small lot and multiplex single-family).	Other Support/ Funding	H.3.2						Builders; Schools		
C.13	HUD Vouchers. Explore ways to increase the usage of HUD vouchers.	Regulatory	H.3.7						Affordable Housing Dev's		
C.14	Tenant Protections - Require longer notice to vacate when multiple tenants are to be displaced.	Regulatory	H.3.5, H.3.7								
C.15	Tenant Counseling and Landlord Education - Provide technical assistance to tenants and landlords.	Other Support	H.3.5								
C.16	Homebuyer Assistance - Promote homebuyer assistance programs offered by lenders and public agencies.	Other Support/ Funding	H.3.5								
C.17	Partnerships with faith communities and other non-profits to develop underutilized land in their ownership.	Other Support	H.3.6						Affordable Housing Dev's; Human Srv. Orgs		

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C. Housing Theme - Housing Affordability (continued)											
DIRECT ASSISTANCE											
C.18	Non-cash Subsidies.	• Credit enhancement education and programs.	Other Support	H.3.5					Affordable Housing Dev's		

Appendix H | Housing Strategy Matrix

STRATEGY	EXAMPLES AND CONSIDERATIONS FOR FURTHER EVALUATION	TYPE OF ACTION (City)	RELATED COMP PLAN GOALS/ POLICIES	30% AMI	50% AMI	80% AMI	120% AMI	MARKET RATE	PUBLIC INPUT	TIMELINESS	PRIORITY
D. Housing Theme - Housing for People with Special Needs											
D.1	Accessibility - Encourage Universal Design features that improve housing accessibility for people with disabilities.	Regulatory	H.4.3								High
D.2	Senior Housing - Review senior housing land use regulations. Ensure that regulations support senior housing and recognize smaller household sizes.	Regulatory/ Other Support	H.4.1, H.4.2						Survey		High
D.3	Support organizations serving those with special housing needs.	Other Support/ Funding	H.4.3, H.4.5						Human Srv. Orgs		High
D.4	Dispersed Special Needs Housing - Through zoning and subarea planning, ensure special needs housing is dispersed throughout the community.	Regulatory	H.4.4								Medium
D.5	Homeless Encampments - Review existing TUP regulations and consider criteria, process and conditions for homeless encampments.	Regulatory	H.4.5, H.5.2								
D.6	Support public and private housing and services for people who are homeless - such as the Landlord Liaison/Rapid rehousing programs and development of new emergency and permanent	Funding	H.4.5, H.5.2						Affordable Housing Dev's; Human Srv. Orgs		

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E. Housing Theme - Regional Collaboration											
E.1	Federal and State Housing Legislation - Review, and as appropriate, provide comment on county, state and federal legislation affecting housing in Sammamish.	Advocacy	H.5.4						Affordable Housing Dev's		High
E.2	Housing Balance - Work cooperatively with other jurisdictions to achieve a regional fair share housing balance and maximize housing resources, e.g. ARCH.	Regulatory/ Other Support	H.3.1						Affordable Housing Dev's		High
E.3	Regional Housing Finance Strategy - Work with other jurisdictions to develop and implement a new regional housing finance strategy.	Other Support	H.5.1, H.6.2						Builders		High
E.4	Support a coordinated regional approach to homelessness.	Other Support	H.5.2								Medium
E.5	Countywide Planning Policies - Coordinate with countywide housing policy and analysis, such as updates to Countywide Planning Policies.	Other Support	H.2.1								



**SAMMAMISH
HOMEGROWN**

A PLAN FOR PEOPLE,
HOUSING, AND COMMUNITY

Department of Community Development

2018 Housing Strategy



City Council Meeting
September 4, 2018

Sammamish Home Grown

Tonight's Presentation

The purpose of tonight's presentation is to introduce the Planning Commission's recommended 2018 Housing Strategy, **Sammamish Home Grown – A Plan for People, Housing, and Community.**



Sammamish Home Grown

Presentation Agenda

- 1. Framework & Process**
- 2. Sammamish Home Grown Overview**
- 3. City Council Next Steps**





Framework & Process

GMA Planning Cycle

Policy Development and Implementation



Sammamish Comprehensive Plan

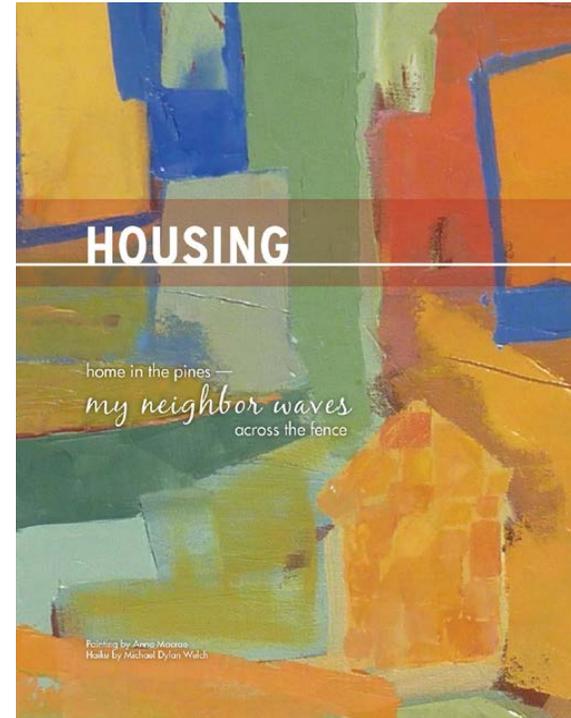
Goals & Policies

Goal H.6

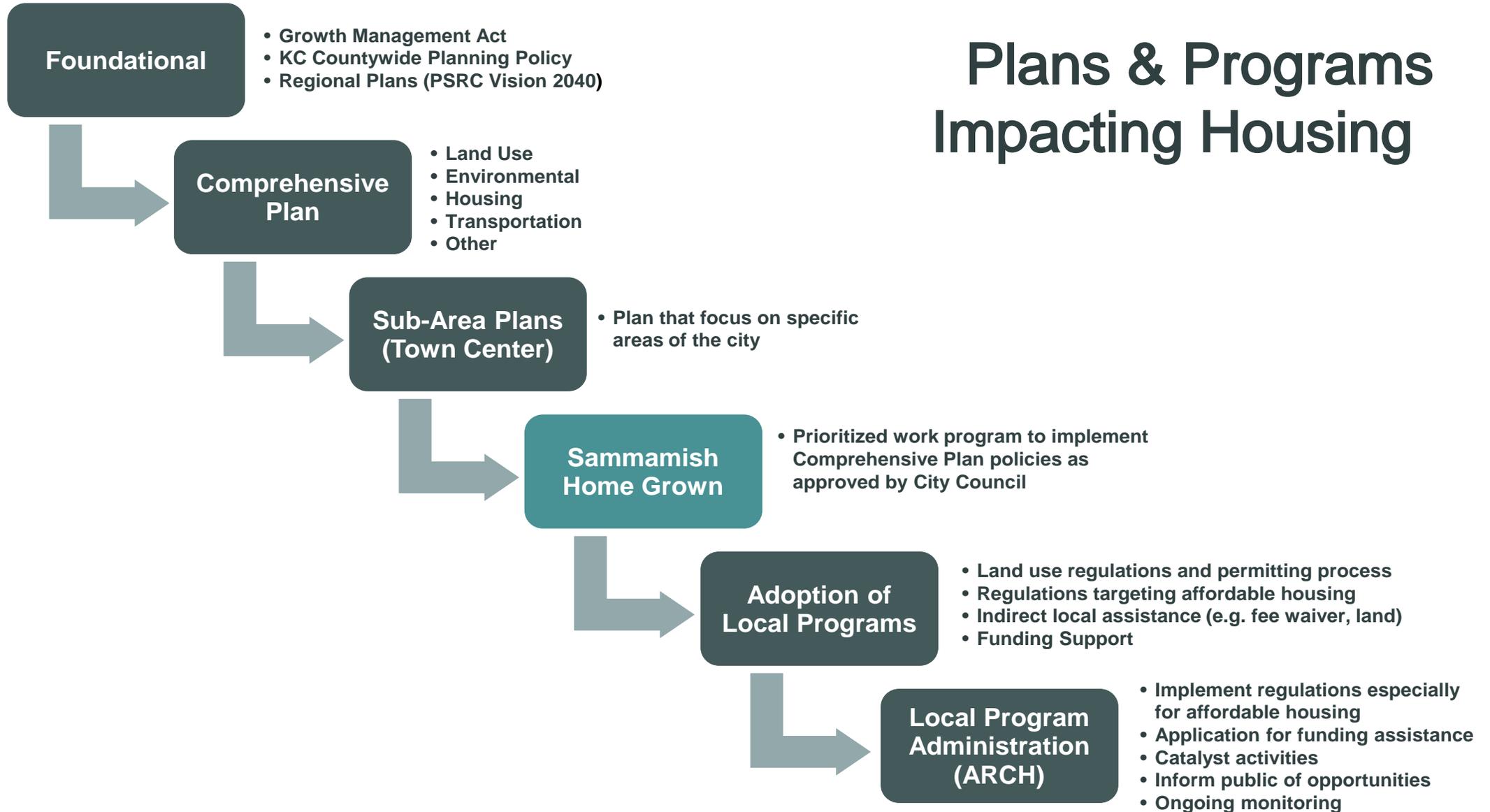
Implement Housing Element goals in a manner that is effective, efficient, and transparent.

Policy H.6.1

Adopt a Housing Strategy Plan to outline benchmarks, steps, and milestones toward implementation of the Housing Element.



Plans & Programs Impacting Housing



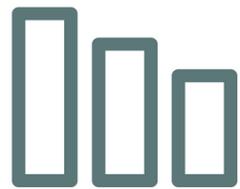
Sammamish Home Grown

Defined

A Plan that will implement the housing goals and policies of the Comprehensive Plan Housing Element, guiding staff time and resources for the next **3-5 years**.



PLANNING COMMISSION HOUSING STRATEGY PLAN DEVELOPMENT PROCESS



**Reviewed
Data**



**Reviewed
Community
/ Human
Services
Input**



**Identified
Housing
Gaps**



**Prioritized
Housing
Strategies**



**Refined
& Added
Examples**

Community Engagement

Section 4 & Appendix D, E, F



Community Engagement

What We Heard

- New homes **are not well designed** and **do not fit the neighborhood character**.
- Low housing stock and affordable housing **impacts employee recruitment and retention**.
- Desire for housing to be located **near public transit and amenities**.
- Rising housing costs are forcing Sammamish families **to cut critical expenses like food, utilities, and other basic needs**.
- There **are few housing opportunities** for families, especially younger families.
- New housing should **protect critical environmental features**.



474 Survey Responses



Open House



Project Website



Panel Discussion



4 Key Stakeholder Group Interviews or Surveys



13 Planning and Human Services Commission Meetings



Sammamish Home Grown

2018 Housing Strategy

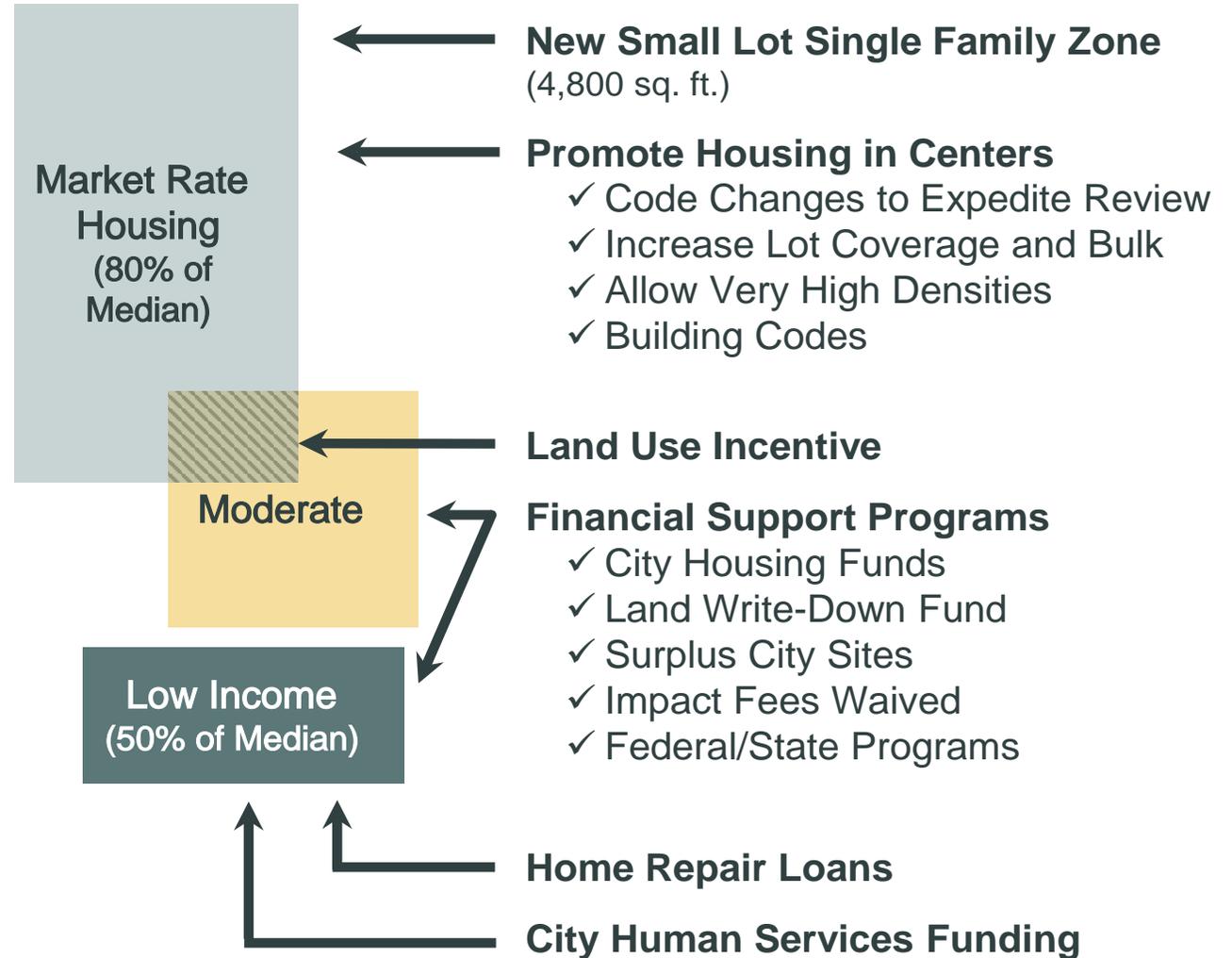
Housing

What is the City's role?

The City of Sammamish determines what can be built where.

We do this through:

- Zoning code
- Subdivision regulations
- Zoning map
- Other tools



Build Upon Existing Efforts

2006 Housing Strategies Implemented (Appendix B)



Sammamish Home Grown

Plan Organization

BODY OF REPORT	APPENDICES
• Introduction, Purpose, & Process	A - Summaries of Commission Meetings
• General Themes for Top Strategies	B - Existing Local Housing Strategies
• Top Strategies	C - Housing Needs – Demographic, Economic, & Housing Data
• Monitoring Activities	D - Stakeholder and Focus Group Input
• Housing Needs	E & F - Community Survey and Feedback Results
	F - Gap Analysis
	H - Matrix of all Strategies

Housing Element Goals



**Neighborhood
Vitality &
Character**



**Housing
Supply &
Variety**



**Housing
Affordability**



**Housing for
People with
Special Needs**



**Regional
Collaboration**



Neighborhood Vitality and Character

PHYSICAL, SOCIAL & ECONOMIC CHARACTERISTICS OF A COMMUNITY THAT RESIDENTS IDENTIFY WITH

- Maintaining and building the sense of community throughout the city.
- Increasing connection within neighborhoods.
- Protecting environmental features.
- Preserving quality housing to maintain the health and safety of residents.



Agree that new housing is not well designed and does not fit the character of the neighborhood.

*Virtual Town Hall Survey Results
(Sammamish Home Grown, Page E-4)*



In 2017, Sammamish had an estimated population of 64,548 with 31% being under the age of 18 years old.

*American FactFinder
(Sammamish Home Grown, Page C-1)*

Neighborhood Vitality and Character

Top Strategies



A.1 – Community Design Standards

A.2 – Sub Area Plans

A.3 – Subdivision Code Update



Housing Supply and Variety

THE MIX OF SINGLE-FAMILY, MULTI-FAMILY & OTHER HOUSING TYPES IN SAMMAMISH

- Can position the City as a desirable place to live for generations to come.
- Ensuring there are housing options for all generations (young adults, families, seniors) and local employees.
- A balanced mix of housing supply & variety suggests a healthy housing market.

56%

Agree that there is a lack of small housing such as “micro-housing” and cottage housing.



61%

Support providing a range of housing options for all stages of life.



*Virtual Town Hall Survey Results
(Sammamish Home Grown, Page E-1 and E-7)*



40% of Sammamish households are made up of 1-2 people whereas 13% of the residential units available are only 1-2 bedrooms.

*American Community Survey, 2016
(Sammamish Home Grown, Page C-6)*

Housing Supply & Variety

Top Strategies



B.1 – Incentives to Expand Housing Choice

B.2 – ADUs

B.3 – Mixed Used Design Standards

B.4 – Transit Oriented Housing Development



Housing Affordability

HOUSING OPTIONS ARE AVAILABLE TO ALL ECONOMIC SEGMENTS OF THE COMMUNITY

- Reducing the housing cost-burden, especially among lower and moderate income households.
- Maintaining high quality education and services in Sammamish through workforce housing.

75%

Agree that affordable housing options are hard to come by.



*Virtual Town Hall Survey Results
(Sammamish Home Grown, Page E-5)*

60% Sammamish jobs that pay less than \$50,000.

82% Sammamish jobs filled by workers who commute to Sammamish.

*American Community Survey, 2015
(Sammamish Home Grown, Page D-4)*

The primary reason why LWSD teachers left Sammamish Schools last year was because their commute was too long and/or they couldn't find housing to meet their needs.

*Stakeholder and Focus Group Summary
(Sammamish Home Grown, Page D-4)*

Housing Affordability

Top Strategies



Regulatory

C.1 – Dispersed Affordable Housing

C.2 – Criteria for Rezones Requiring Affordable Housing

C.3 – Zoning to Allow Range of Housing Affordability

Direct Assistance

C.6 – ARCH Housing Trust Fund

C.7 – Public Land Survey

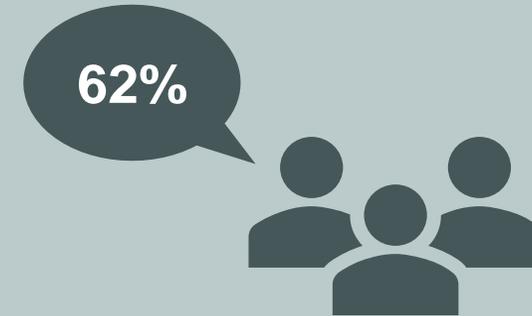
C.8 – Support the Preservation of Existing Affordable Housing



Housing for People with Special Needs

HOUSING FOR PEOPLE OR HOUSEHOLDS THAT NEED SOME TYPE OF ASSISTANCE IN ADDITION TO THEIR HOUSING

- Housing is needed to address the varied care needs of residents that are elderly and/or have a disability.
- Include opportunities to connect with neighbors & the community.



Agree that the availability and range of housing options for all stages of life would be a successful outcome for Sammamish in the next 20-years.

*Virtual Town Hall Survey Results
(Sammamish Home Grown, Page E-7)*



Among East King County cities, Sammamish has the fewest beds available in licensed assisted living, nursing homes, and adult family homes.

*WA Department of Social and Human Services, 2016
(Sammamish Home Grown, Page C-3)*

Housing for People with Special Needs

Top Strategies



D.1 – Accessibility

D.2 – Senior Housing

D.3 – Support for organizations serving those with special housing needs



Regional Collaboration

COORDINATE WITH OTHERS IN OUR REGION TO ADDRESS HOUSING NEEDS

- Sammamish is influenced by regional employment and housing markets.
- Regional collaboration is a key component of the Growth Management Act and further encouraged through the Countywide Planning Policies.



Job growth is expected to exceed housing growth in many cities surrounding Sammamish which will likely impact the Sammamish housing market.

*A Regional Coalition for Housing (ARCH), 2014
(Sammamish Home Grown, Page C-5)*

The number of homeless school children in East King County has increased 56% since 2010, and in the 2016-17 school year there were 517 homeless students in the Issaquah and Lake Washington School Districts.

Regional Collaboration

Top Strategies



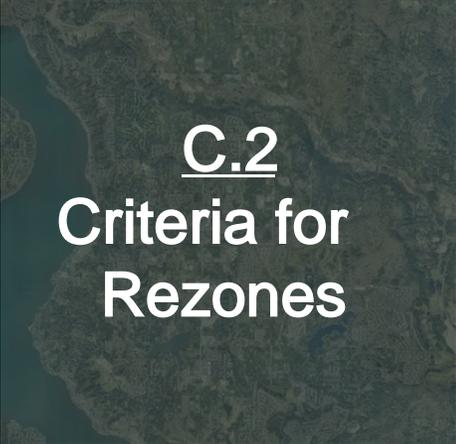
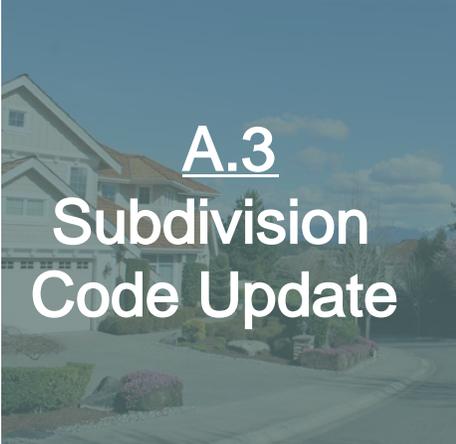
E.1 – Federal & State Housing Legislation

E.2 – Housing Balance

E.3 – Regional Housing Finance Strategy

Staff Recommended Initial Work

Proposed efforts in the next 1 -2 years





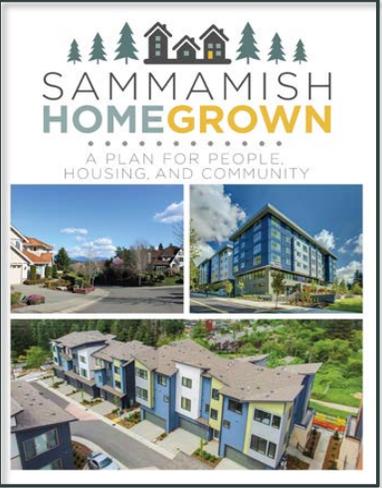
City Council Next Steps

ROLES AND RESPONSIBILITIES



Sammamish Home Grown

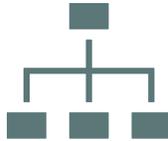
City Council Review and Approval



**Review
Planning
Commissions
Recommended
Plan**



**Focus on the
priority and
relative
rankings for
each group of
Top Strategies**



**Confirm or
reprioritize
Top
Strategies**



**Adopt the 2018
Housing
Strategy,
Sammamish
Home Grown**

Sammamish Home Grown

City Council Next Steps - Recommended

DATE	TOPIC
✓ September 4	Presentation
September 18	Public Hearing
October 9	Joint Work Session w/ Planning Commission

No.	Page #	City Council Questions	Staff Response to Council Questions and Comments
<i>Regarding September 4, 2018 City Council Meeting</i>			
1	C-1	<p>The population estimates chart is surprisingly off. It doesn't show the spike by 10,000+ people in 2016 with the annexation of Klahanie, and shows back in 2010 our population was "estimated" to be over 57,000. In 2010 our population was 45,810 according to the Census data. This chart should be revised to be more in line with actual populations (or estimates) than this chart.</p>	<p>The data previously included in the population chart in C-1 was pulled from American Factfinder's 2017 Population Estimates Program Annual Population Estimates (https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?sr=c=CF) which re-adjusted population estimates based on the annexation of Klahanie. This means that instead of showing the population of Sammamish before and after annexation, the chart showed the overall growth for residents in Sammamish and Klahanie overtime. More information about the methodology behind how this data is pulled can be found at: https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2010-2017/2017-su-meth.pdf</p> <p>We will add an amendment (see Amendment 1 in Exhibit 5) to update the data with population and land area estimates from the Washington State Office of Financial Management. Population estimates start in 2010 with calculations derived from adjusted federal census counts. The adjustments include: 1) controlling for annexations that occurred between January 1 and April 1 to account for boundary changes related to the timing of the federal census, 2) the substitution of state-certified special census counts in place of federal census counts, and 3) federal corrections to census counts. Land area estimates for Sammamish are derived from values included in our incorporation documents (excluding lakes and other water areas).</p>

No.	Page #	City Council Questions	Staff Response to Council Questions and Comments
2	C-1	<p>The yellow box says our population has increased 12% since 2010, but based on census data, the actual increase is 40.99%. This of course includes the Klahanie PAA, but we don't seem to denote that anywhere, and so the 12% increase seems a bit misleading. Since our services cover a broader area now, the reality of our population should state the 41% increase with an explanation of the population spike in January 2016 with the annexation (and how many people were annexed at that time).</p>	<p>The 12% increase was based on the numbers pulled in the population estimate chart mentioned in Q1 above. We will add an amendment (see Amendment 2 in Exhibit 5) to adjust the numbers to correlate with the new population estimates mentioned in Q1 and note the annexation of Klahanie in 2016.</p>
3	C-1	<p>Race & Ethnicity pie chart. Since the yellow box and the age pie chart seem to correspond directly with census data, I couldn't figure out why there was a discrepancy with this chart with what I found on the census site.</p> <p>The breakdown on the Census website states: White 69.2%; Black 1.0%; American Indian/Alaska Native 0.0%; Asian 25.2%; Native Hawaiian/Pacific Islander 0.1%; 2+ races 4.1%; Hispanic/Latino 4.0%</p> <p>Why is our data different?</p>	<p>This data was pulled from the 2012-2016 American Community Survey 5-Year Estimates (see Race Alone or in Combination with One or More Other Races towards the middle of the page) in an attempt to provide a more up-to-date overview of Sammamish's demographics since the 2010 Census.</p> <p>https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF</p> <p>All percentages were rounded and races that had low representation were combined under the "Some Other Race" Category. This included American Indian and Alaska Natives (0.5%), Native Hawaiians and Other Pacific Islanders (0.4%), and Some Other Race (0.9%).</p>
4	C-2	<p>The data set from the "American Community Survey" is from 2015. Since this data is released annually, can we not update this with 2016 data? The 2017 data is due to be released in October 2018.</p>	<p>The source on this chart should have been labeled as American Community Survey 5-year estimate for 2011-2015. Please also see the response below in Q6.</p> <p>The 2017-5 year estimates will be released in early December and may be helpful to look at as work moves forward. (https://www.census.gov/programs-surveys/acs/news/data-releases/2017/release-schedule.html)</p>

No.	Page #	City Council Questions	Staff Response to Council Questions and Comments
5	C-2	The bottom data set in the chart says 2012. This data set runs in 4 year increments. Is this 2008-2012 data we are using here? The most updated version would be 2011-2015, this data is 3 sets older than the newest data available.	This was the 2008-2012 data set. Additionally, please see response below in Q6.
6	C-3	We use 2016 data here, but from the same source we have data sets from an earlier year. Maybe all data points weren't available? Can we understand why we have the same source used throughout Appendix C, but it is not the same year consistently?	We apologize for the inconsistency. We will add an amendment to update all the charts using data from the American Community Survey to be from the 2012-2016 5-year estimates (see Amendment 3 in Exhibit 5). Similarly, we will add an amendment to update all the charts using the U.S. Department of Housing & Urban Development's Comprehensive Housing Affordability Strategy data to the 2011-2015 data set (see Amendment 4 in Exhibit 5).
7	C-4	Data set date question again on both of the charts used here.	Please see response to Q6.
8	C-5	We reference ARCH data here from 2014, but in other places in this same appendix we have ARCH data from 2017. Is the data not available for all of these statistics in the ARCH data from 2017? I'm not a big fan of using data sets from different years, unless the data doesn't exist in that year. 4 year old data in this day and age may not be relevant.	ARCH's practice related to the Jobs-to-Housing Ratio has been to correlate this chart with the Buildable Lands and Comprehensive Plan targets instead of updating it annually because the goal is to show what cities have planned.
9	C-6	Data set date again.	Please see response to Q6.

No.	Page #	City Council Questions	Staff Response to Council Questions and Comments																																	
10	C-6	I know we don't have the next buildable lands report yet, but we do know how many permits have been issued and constructed for the SFR & MFRs since 2014. It would be nice to have a more accurate picture of where we currently stand. When we issued the 10/3/17 moratorium, we had some 800+ applications in the pipeline alone.	<p>While the existing/remaining amounts would change, there shouldn't be much change to single-family and multi-family split. The information requested is as follows. If desired by Council, an amendment can be added to include this updated data in the chart.</p> <table border="1" data-bbox="1052 451 1751 675"> <thead> <tr> <th colspan="3">SFR PERMITS ISSUED</th> </tr> <tr> <th>Year</th> <th>Permits Issued</th> <th>Permits Finaled</th> </tr> </thead> <tbody> <tr> <td>2014</td> <td>240</td> <td>239</td> </tr> <tr> <td>2015</td> <td>182</td> <td>178</td> </tr> <tr> <td>2016</td> <td>279</td> <td>268</td> </tr> <tr> <td>2017</td> <td>358</td> <td>280</td> </tr> <tr> <td>2018 (Jan. - Aug)</td> <td>169</td> <td>7</td> </tr> </tbody> </table> <table border="1" data-bbox="1052 703 1751 886"> <thead> <tr> <th colspan="3">MULTIFAMILY/APARTMENTS</th> </tr> </thead> <tbody> <tr> <td>2016 - Plateau 120 Apartments</td> <td>92 units</td> <td>2017 Finaled under construction</td> </tr> <tr> <td>2017- Sky Apartments</td> <td>159 units</td> <td>under construction</td> </tr> <tr> <td>2018 - Aurea Apartments</td> <td>41 units</td> <td>under construction</td> </tr> </tbody> </table>	SFR PERMITS ISSUED			Year	Permits Issued	Permits Finaled	2014	240	239	2015	182	178	2016	279	268	2017	358	280	2018 (Jan. - Aug)	169	7	MULTIFAMILY/APARTMENTS			2016 - Plateau 120 Apartments	92 units	2017 Finaled under construction	2017- Sky Apartments	159 units	under construction	2018 - Aurea Apartments	41 units	under construction
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11	C-7	Pie Charts data set date question again	Please see response to Q6.																																	
12	C-10	Data set date question again	Please see response to Q6.																																	
13	C-11	There isn't a date on the ARCH data on either chart on this page. The last 20 years from 201?	Thank you for bringing this to our attention. The chart title included a typo and should have been 25 years. To provide added clarity and fix the typo, an amendment will be added (see Amendment 5 in Exhibit 5) to modify the chart title to "Affordable Housing Units Created from 1992-2017" so that it includes the date span and makes things more clear for the reader.																																	

No.	Page #	Source	Type	Proposed Amendment
<i>Before the Oct. 9th Work Session</i>				
1	C-1	City Council	Update to improve clarity	Update the population chart to the Population and Land Area Estimates from the Washington State Office of Financial Management.
2	C-1	City Council	Update to improve clarity	Update the text of the call-out box to correlate with the above data source and note the annexation of Klahanie in 2016.
3	C-1, C-2, C-3, C-4, C-6, C-9	City Council	Update to improve clarity	Update all charts using American Community Survey 5-year estimates for 2011-2015 to the 5-year estimates for 2012-2016.
4	C-2, C-4, C-7, C-8, C-10	City Council	Update to improve clarity	Update all charts using the U.S. Department of Housing & Urban Development's Comprehensive Housing Affordability Strategy data for 2008-2012 to the 2011-2015.
5	C-11	Staff	Correction & update to improve clarity	Modify the chart title from "Affordable Housing Units Created in the Past 20 Years" to "Affordable Housing Units Created from 1992-2017".
6	C-2, C-4	Staff	Update to improve clarity	Update the text of the call-out box to correlate with the updated data source.
7	C-5	ARCH	Correction	Modify chart title from "Household Growth" to "Housing Unit Growth".
8	C-11	ARCH	Correction	Modify chart title from "Accessory Dwelling Units Constructed" to "Accessory Dwelling Units Permitted".

Agenda Bill

City Council Study Session

October 09, 2018



SUBJECT:	A study session to receive an update and provide input into the Urban Forest Management Plan.	
DATE SUBMITTED:	September 28, 2018	
DEPARTMENT:	Community Development	
NEEDED FROM COUNCIL:	<input type="checkbox"/> Action <input checked="" type="checkbox"/> Direction <input type="checkbox"/> Informational	
RECOMMENDATION:	<p>The City Council should review the first draft of the Urban Forest Management Plan, focusing on its discussion of urban forest threats and opportunities, representation of the community's vision for the urban forest, and an assessment of whether the proposed strategic goals address the primary issues facing the City's urban forest resource.</p>	
EXHIBITS:	<p> 1. Exhibit 1 - Urban Forest Management Plan Draft 2. Exhibit 2 - UFMP First Draft Discussion Framework 3. Exhibit 3 - UFMP First Draft - Summary of Comments 4. Exhibit 4 - Question and Answer Matrix - Canopy Study 5. Exhibit 5 - Presentation - Urban Forest Management Plan First Draft Review </p>	
BUDGET:		
Total dollar amount		<input checked="" type="checkbox"/> Approved in budget
Fund(s)		<input type="checkbox"/> Budget reallocation required
		<input type="checkbox"/> No budgetary impact
WORK PLAN FOCUS AREAS:		
<input type="checkbox"/>  Transportation	<input type="checkbox"/>  Community Safety	
<input type="checkbox"/>  Communication & Engagement	<input checked="" type="checkbox"/>  Community Livability	
<input type="checkbox"/>  High Performing Government	<input type="checkbox"/>  Culture & Recreation	
<input checked="" type="checkbox"/>  Environmental Health & Protection	<input type="checkbox"/>  Financial Sustainability	

NEEDED FROM COUNCIL:

A study session to receive an update and provide input into the Urban Forest Management Plan.

KEY FACTS AND INFORMATION SUMMARY:

Summary Statement

The City is currently in the process of developing its first Urban Forest Management Plan (UFMP). The purpose of the UFMP is to create a shared community vision and establish goals, policies and strategies relating to the health, management, and promotion of the City's urban forest resource. The City has contracted with Davey Resource Group (DRG) to assist in the preparation of this plan. DRG has completed a comprehensive data collection effort, canopy cover study, staff and community stakeholder interviews, as well as a substantial public engagement campaign which included open houses, workshops, a non-scientific public opinion survey, and the "My Sammamish Forest" photo contest and exhibit. City Council received its last update related to the UFMP on July 9, 2018.

Study Session

Building on these efforts, DRG has developed a first draft of the UFMP. The Parks & Recreation Commission and the Planning Commission received updates and provided inputs in September. The purpose of this study session is for City Council to receive an update and provide input on this first draft of the text for the UFMP. Staff and DRG request the City Council focus on higher-level feedback at this meeting, specifically addressing the following questions:

- Does the draft UFMP accurately describe the current status of Sammamish's urban forest resource and urban forestry operations?
- Does the draft UFMP adequately address the threats and opportunities facing Sammamish's urban forest resource?
- Does the draft UFMP accurately represent the community's vision for the urban forest?
- Do the proposed goals address the threats and opportunities facing Sammamish's urban forest resource in a way that is reflective of the community's vision for it? Specific implementation and action steps (strategies) for these goals will be discussed at a later date, based on the input of the City Council at this meeting as discussed below.

Next Steps

Following this study session with City Council, staff will consolidate all of the feedback received to DRG, whose next step is the preparation of a draft Strategic Recommendations and Implementation Plan. Staff and DRG will return to the Planning Commission and City Council later in 2018 to seek input on this document, which will propose specific actions the City can take to reach the goals proposed in the first draft of the UFMP. Following a review of the Strategic Recommendations and Implementation Plan, staff and the consultant will return with a final draft of the entire UFMP for legislative review in 2019.

RELATED CITY GOALS, POLICIES, AND MASTER PLANS:

Comprehensive Plan Policy EC.10.10 - Create and support a robust and comprehensive Urban Forestry Management Plan starting in 2016.

City of Sammamish
Urban Forest Management Plan (Draft)
2018

Prepared for:
The City of Sammamish
Department of Community Development
801 228th Ave SE
Sammamish, Washington, 98075

Prepared by:
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6005 Capistrano Ave., Suite A
Atascadero, California 93422
www.daveyresourcegroup.com



Disclaimer:

The following document is a draft and is provided as a courtesy. The content herein is subject to change and is not intended to be free of grammatical errors, sentence fragments, and other legibility concerns.

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DRAFT

Acknowledgements

To be completed with second draft

Art in the Urban Forest Management Plan

As part of the development of the UFMP, the City conducted the “My Sammamish Forest” photo contest with help from the Sammamish Art Commission. The City created the contest to highlight the different ways that Sammamish residents appreciate and celebrate the City’s urban forest. Over 250 photo entries were submitted to the photo contest, by nearly 100 photographers. Many of these photos are included in the UFMP.

Scope & Purpose

The purpose of the Urban Forest Management Plan (UFMP) is to provide a policy guide for managing, enhancing, and growing trees in the City of Sammamish over the next twenty (20) years. The Plan includes long-range goals to promote resilience, species diversity, and enhanced canopy cover. An urban forest is defined as all of the trees and woody shrubs growing within an urban area. The UFMP further differentiates the publicly-managed trees along streets, in parks, and at City facilities as the *community urban forest*. The Plan also includes considerations for privately-owned trees because of their function and contribution to the sustainability of the overall urban forest in Sammamish.

The purpose of this UFMP is to:

- Illustrate the value and benefits of trees.
- Promote shared vision and collaboration between community residents.
- Establish benchmarks and metrics to monitor the long-term success of management strategies.
- Enhance the health and sustainability of the community urban forest.
- Increase the benefits that are provided to Sammamish and the region by the trees.
- Ensure that resources are in place to support the care and management of the community's trees.

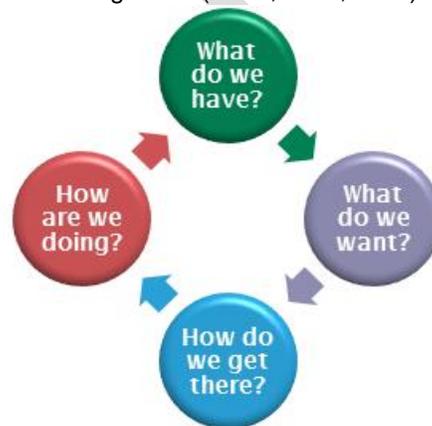
The Plan identifies both long and short-term goals as well as action strategies in support of this purpose and identifies appropriate resources to adequately manage community trees. It is designed to be flexible and dynamic, allowing for the exploration and implementation of the actions as funding and resources permit.

Executive Summary

Spending any amount of time outdoors in the City of Sammamish will reveal the richness and diversity of natural resources that embrace the community. Trees are abundantly visible among buildings and roadways. The generous mix of native trees and planted nursery specimens impart a diversity of views in the landscape. These trees provide shade, freshen the air, soften the built environment, and allow residents and visitors to readily connect with nature. All the trees and woody shrubs that inhabit the community make up Sammamish's urban forest resource. However, without active management, this urban forest is at risk. The history of logging in the area is the primary reason for the forest we see today, but as the city grows, urban forest can be lost to the need for more homes, buildings and other necessities of urban living.

In 2015 the City adopted a Comprehensive Plan that formally recognizes the importance of conservation of the urban forest. The Urban Forest Management Plan (UFMP) is intended to be a policy document that aligns with and supports the Comprehensive Plan. It agrees with the City's intention to prioritize sustainability and health as overriding core values.

The structure and organization of the UFMP are based on the understanding of what we have, what we want, how we get there, and how we are doing. This structure, referred to as adaptive management, is commonly used for resource planning and management (Miller, R.W., 1988) and provides a good conceptual framework for managing community forest resources. To understand the urban forest, the development process included an Urban Tree Canopy Assessment. This remote sensing project establishes baseline information about the quantity of forest in the City and was used to facilitate conversations about community values, existing regulations, and policies that protect community trees. In addition, there were multiple stakeholders, internal and external, who played a role in the planning, design, care, and advocacy of the community forest. These individuals included the public, City departments, and related community groups.



What Do We Have?

Sammamish's urban forest is a combination of public and private trees. Trees that the City of Sammamish has responsibility for and are in direct control of are defined as the *community urban forest*. This includes trees in parks, along rights-of-way, and at City facilities. While public trees along major arterials and high-profile areas are well-known and routinely cared for by City staff, other public street trees are the responsibility of the adjacent property owner. Aside from the information collected in conjunction with individual development applications, the City has only recently begun to track the status and location of its trees. In the Public Works Department, this was started with a GIS survey of the rights-of-way, which found an estimated 15,988 trees. Within the Parks and Recreation Department, two (2) of their fourteen (14) parks have had trees assessed.

Recognizing the role of trees in the community and the necessity to manage them, Sammamish acknowledged the importance of its urban forest in the 2003 Comprehensive plan. Revised in 2015, elements of the Comprehensive Plan introduce urban forest policy objectives that have since been the source for many of the City's tree management decisions, including the development of detailed municipal codes related to tree protection, preservation, and planting.

City staff were consulted during UFMP development to review current practices. City code and public safety are the primary considerations for tree care decisions. Currently, manager take a reactive approach to tree care by performing work on trees as problems are discovered. They also look for opportunities to strategically plant trees in public places.

The planning process for this UFMP included an assessment of tree canopy. The results of the study provide a clear picture of the extent and distribution of tree canopy across Sammamish, benchmarking the average tree canopy cover at 48%.

The primary challenges and opportunities for urban forest management are:

- There is limited knowledge about the community urban forest resource.
- Tree management by city staff could transition to pro-active management.
- Tree preservation and replacement codes provide an essential function for ensuring canopy retention.
 - Oversight and enforcement of tree preservation and planting activities could be improved.
- There is potential to increase the canopy to almost 60%, but there are no formal planting plans.

Table X: Benchmark Values (2018)

The City	
Acres	13,228
Park Trees	Unknown
Street Trees	15,988
Land Cover	
Tree Canopy	48%
Grass & Vegetation	23%
Impervious Surfaces	25%
Bare Soils	2%
Open Water	2%
Potential Tree Canopy	
Maximum Potential Canopy Cover	60%
High Priority Planting Acres	226.29
Investment	
Human Population	63,773
Tree Care Per Capita	\$8.13

What Do We Want?

Managing any resource begins with defining what is being managed and establishing benchmarks along with clearly defined goals and expectations. The Plan development process included substantial outreach to community stakeholders, residents, and non-profit agencies. Through open house forums and public meetings, an engaged set of residents communicated common values and the belief that trees help define the character of Sammamish. The process provided a broad perspective on the challenges and opportunities that face the urban forest. Opinions varied on matters pertaining to the care of the urban forest, but the consensus was to protect and conserve as much of the urban forest as reasonably possible.

In general, stakeholders from both the community and City staff share the following desired outcomes for the UFMP:

- Preservation and enhancement of tree canopy
- Sustainability, health, and safety for the community urban forest
- Preservation and enrichment of wildlife and habitat
- Improved outreach and education
- Increased collaboration with volunteers and nonprofit groups

How Do We Get There?

The strategic goals identified by the UFMP are organized around three guiding principles of a sustainable urban forestry program:

Urban Forest Sustainability – That the urban forest is an asset which provides benefits that the community wishes to protect and maintain. Associated goals are intended to improve the urban forest resource over the next twenty (20) years by developing detailed expectations for the urban forest. Goals include:

- Maintain overall canopy cover
- Increase and promote resilience in the urban forest resource.
- Update design, construction and development standards that apply to trees and planting sites.
- Enhance tree bank (fund) for applications beyond parks
- Assess the ecosystem services provided by public trees and natural areas.
- Collect and maintain a complete inventory database for the community tree resource.
- Care for the community urban forest using the best available science.

Efficiency in Municipal Operations – That the city organizes in ways that are efficient. Associated goals are intended to drive improvements in City policy and practices by developing efficiency and alignment of efforts within City departments. Goals include:

- Maintain Urban Forest Management Plan alignment with other City plans and policies.
- Provide staff that are appropriately trained to work safely and effectively.
- Establish a Formal Interdepartmental Working Team.
- Develop annual work plans that foster routine operations and predictable funding.
- Enhance processes for tree planting and plant salvage
- Review tree ordinances every 5-10 years.

Community Collaboration and Engagement – That the community can be engaged and provide support for urban forest management. Associated goals build stronger community engagement and public participation in urban forest stewardship. Goals include:

- Maintain an engaging, user-friendly Urban Forestry web page
- Develop outreach materials to engage and educate on key topics.
- Pursue and maintain Tree City USA status.
- Collaborate and nurture partnerships with other organizations.
- Establish Arborist Businesses License.
- Develop a wood re-use/recycle program.

How Are We Doing?

The UFMP presents opportunities to steward the urban forest by providing an overarching framework for forestry operations, policies, and programs. It provides a high-level review of urban forest management in the City, including historical context and an exploration of the benefits of Sammamish trees. Building upon that information, the Plan connects the community's vision for the urban forest with appropriate goals and actions.

The Plan provides direction and vision over the next twenty (20) years. The short and long-term goals will be achieved by adapting the Plan to a five-year (5-year) cyclical review and adjustments to operational objectives. The success of the UFMP will be measured through the realization of goals and demonstrated through the increased value of the urban forest and the environmental benefits provided by trees. Ultimately, it will lead to an enhancement of tree canopy throughout the City.

Introduction

Trees play an essential role in the community of Sammamish, providing numerous tangible and intangible benefits to residents, visitors, neighboring communities, and wildlife. Research demonstrates that healthy urban trees can improve the local environment and lessen the impact resulting from urbanization and industry (U.S. Forest Service, Pacific Southwest Division, 2017).

Trees improve air quality, reduce energy consumption, help manage stormwater, reduce erosion, provide critical habitat for wildlife, and promote a connection with nature.

In addition to these direct improvements, healthy urban trees increase the overall attractiveness of a community. Research from Portland, Oregon, found that street trees add an average \$8,870 to the sales price and reduce time on the market for home sales by 1.7 days (Donovan and Butry, 2010). Studies on the business benefits of trees have shown how retail districts promote longer and more frequent shopping and greater sales (Wolf, 2007). Urban trees support a more livable community, fostering psychological health and providing residents with a greater sense of place (Kuo, 2003). Community trees, both public and private, soften the urban hardscape by providing a green sanctuary and making the City a family-friendly community with unrivaled connectedness to nature. The City has emphasized the importance of trees within its Comprehensive Plan (2016) to the extent that trees are defined as a valued community resource, an important component of the urban infrastructure, and a part of the City's identity.

Vision

The Sammamish Comprehensive Plan provides a vision of the community as family-friendly, attractive, and sustainable in a beautiful natural environment. It specifically recognizes the value of tree canopy as contributing to that vision:

“Sammamish is a vibrant bedroom community blessed with a well-preserved natural environment, a family-friendly, kid-safe culture, and unrivaled connectedness. From its expanding tree canopy, to its peaceful neighborhoods, to its multi-modal transportation resources, Sammamish captures the best of the past even as it embraces a burgeoning digital future and meets housing affordability through balanced, sustainable housing. It is a state-of-the-art community—engaged, responsive and generous in its support for the full range of human endeavor.” - Comp Plan 2015

In aligning with this vision, this UFMP provides a guiding document to management of the urban forest in ways that balance our community responsibilities of environmental stewardship with the necessities of human endeavor. It provides strategies for City staff to manage the forest resource, especially focusing on public lands and rights-of-way. For private lands, the UFMP will guide educational and incentive programs to encourage good tree management.

Benefits of The Urban Forest

Urban and natural forests work constantly to mitigate the effects of urbanization and development and to protect and enhance lives within the community. This is increasingly evident as communities calculate the benefits of their urban forest using a complete inventory or sample data in conjunction with the USDA Forest Service *i-Tree* software tools. This state-of-the-art, peer-reviewed software suite considers regional environmental data and costs to quantify the ecosystem services unique to a given urban forest resource.

Individual tree owners can calculate the benefits of trees to their property by using the **National Tree Benefit Calculator** (www.treebenefits.com/calculator) or with **i-Tree Design**. www.itreetools.org/design). The National Tree Benefit Calculator was developed by Casey Trees and Davey Tree Expert Company to aid in the understanding of the environmental and economic value trees provide on an annual basis.

To help understand these benefits, four (4) commonly found trees were selected for an introduction to tree benefit calculations in the following discussions; Purple leaf plum (*Prunus cerasifera*), Red maple (*Acer Rubrum*), Douglas-fir (*Pseudotsuga menziesii*) and Big leaf maple (*Acer macrophyllum*). The benefits provided by these trees vary according to their size and leaf

area. In general, there are five (5) important ways in which trees provide benefits; Water Quality, Carbon Sequestration, Energy Savings, Air Quality, and Socioeconomic Benefits.

Water Quality

Urban stormwater runoff is a major source of contamination for the Puget Sound and riparian areas throughout Sammamish, threatening both human health and wildlife, including salmon populations. Requirements for surface water management are becoming more stringent and costlier for both developers and the City. By incorporating the right mix of urban trees into stormwater management planning, runoff volumes, peak stream flows, and flooding incidents may all be reduced; a strategy that may lessen the need for constructing stormwater management facilities and the cost of treatment to remove sediment and other pollutants. A well-functioning green infrastructure system can deliver the equivalent water availability and filtration, flood control, and shoreline protection as a major physical infrastructure project (Action 2020, 2018). Trees improve and protect water quality in the following ways:

- **Interception** – Trees intercept rainfall in their canopy, which act as a mini-reservoir. Some water evaporates from the canopy and some slowly soaks into the ground, reducing the total amount of runoff (Xiao, et al., 2000). Canopy interception also lessens soil compaction, which in turn further reduces runoff.
- **Increasing soil capacity and infiltration** – Root growth and decomposition increase the capacity and rate of soil infiltration through rainfall and snowmelt, resulting in slower percolation rates and increasing the filtration of contaminants (Xiao, et al., 2007).
- **Reducing soil erosion** – Tree roots reduce the flow and volume of stormwater runoff, avoiding erosion and preventing sediments and other pollutants from entering streams, rivers, Lake Washington, and the Puget Sound (Washington Department of Ecology, 2011).
- **Providing salmon habitat** – Shade from trees helps to cool warm urban runoff, which poses a threat to anadromous fish, such as salmon. Shade from trees provides lakeside and riparian habitat for salmon and cools water temperatures, increasing dissolved oxygen, which is essential to salmon survival (Puget Sound Partnership, 2012).

In Sammamish, a red maple (12" DBH) growing along a residential street would intercept an estimated 909 gallons of stormwater from City storm sewers in 2018 avoiding \$25.25 in stormwater management cost (www.treebenefits.com, 2018).

Common Name	Scientific Name	DBH (inches)	Average Benefits	Intercept Stormwater Runoff (gals)	Stormwater Value
Purple leaf plum	<i>Prunus cerasifera</i>	6.00	57.00	258.00	\$7.18
Red maple	<i>Acer rubrum</i>	12.00	133.00	909.00	\$25.25
Big leaf maple	<i>Acer macrophyllum</i>	24.00	191.00	2,035.00	\$57.05
Douglas fir	<i>Pseudotsuga menziesii</i>	24.00	224.00	2,964.00	\$82.37

Carbon Sequestration

As environmental awareness continues to increase, governments are paying particular attention to the effects of greenhouse gas (GHG) emissions. As energy from the sun (sunlight) strikes the Earth's surface, it is reflected back into space as infrared radiation (heat). Greenhouse gases absorb some of this infrared radiation and trap this heat in the atmosphere, increasing the temperature of the Earth's surface. Many chemical compounds in the Earth's atmosphere act as GHGs, including methane (CH₄), nitrous oxide (N₂O), carbon dioxide (CO₂), water vapor, and human-made gases/aerosols. As GHGs increase, the amount of energy radiated back into space is reduced, and more heat is trapped in the atmosphere. An increase in the average temperature of the earth may result in changes in weather, sea levels, and land-use patterns, commonly referred to as "climate change." In the last 150 years, since large-scale industrialization began, the levels of some GHGs, including CO₂, have increased by 25% (U.S. Energy Information Administration, 2003).

Trees absorb atmospheric carbon, which reduces greenhouse gases. The carbon-related function of trees is measured in two (2) ways: storage (total stored in tree biomass) and sequestration (the absorption rate per year). Urban trees act as a sink of CO₂ by storing excess carbon as biomass during photosynthesis and the amount of CO₂ stored is proportional to the biomass of the trees (Gómez-Baggethun and Barton, 2013).

Urban trees reduce atmospheric carbon dioxide (CO₂) in two (2) ways:

- Directly – Through growth and the sequestration of CO₂ as wood and foliar biomass.
- Indirectly – By lowering the demand for heating and air conditioning, thereby reducing the emissions associated with electric power generation and natural gas consumption.

Because of these factors, trees in the urban forest are effective at helping municipalities realize their goals towards GHG emissions reduction, especially with carbon dioxide (Blum, 2016).

In Sammamish, a red maple (12" DBH) growing along a residential street would annually reduce over 267 pounds of atmospheric carbon (www.treebenefits.com, 2018). This can be represented as about \$0.46 in benefits both in carbon sequestered and avoided.

Common Name	Scientific Name	DBH (inches)	Average Benefits	Reduced atmospheric carbon (lb)	Carbon Value
Purple leaf plum.	<i>Prunus cerasifera</i>	6.00	57.00	110.00	\$0.36
Red maple	<i>Acer rubrum</i>	12.00	133.00	267.00	\$0.84
Bigleaf maple	<i>Acer macrophyllum</i>	24.00	191.00	731.00	\$2.22
Douglas fir	<i>Pseudotsuga menziesii</i>	24.00	224.00	466.00	\$1.42

Energy Savings

Electric and gas utilities develop energy conservation solutions to keep rates low for their customers, reduce their need to build new lines, and ultimately, serve as environmental stewards. Energy services delivered to Sammamish residents are provided by Puget Sound Energy (PSE). PSE is developing initiatives to reduce its carbon footprint by fifty (50) percent by 2040 through the transition from coal, development of new product and resource development, and focus on cleaner transportation (PSE, 2018). Urban trees influence air temperature in urban areas, which in turn create energy savings that reduce power plant emissions (McPherson and Simpson, 2003). Urban trees and forests modify the environment and conserve energy in four (4) principal ways:

- Shade dwellings and impervious surfaces – Impervious surfaces in 2015 were assessed as 25% of the total land base (See tree canopy results section). Shade from trees reduces the amount of radiant energy absorbed and stored by these impervious surfaces, thereby reducing the urban heat island effect. Urban heat island effect is a term that describes the increase in urban temperatures in relation to surrounding locations (Simpson and McPherson, 2000). Shade from trees also reduces the amount of energy used to cool a structure (Simpson, 2002).
- Transpiration – Transpiration releases water vapor from tree canopies, which cools the surrounding area. Through shade and transpiration, trees and other vegetation within an urban setting modify the environment and reduce heat island effects. Temperature differences of more than 9°F (5°C) have been observed between City centers without adequate canopy cover and more forested suburban areas (Akbari, et al., 1997).
- Wind reduction – Trees reduce wind speeds by up to 50% and influence the movement of air and pollutants along streets and out of urban canyons. By reducing air movement into buildings and against conductive surfaces (e.g., glass, metal siding), trees reduce conductive heat loss from buildings, translating into potential annual heating savings of 25% (Heisler, 1986).
- Green Roofs – Native trees and vegetation on rooftops can help reduce the urban heat island effect, decrease the heat loss through rooftops (U.S. Department of Energy, 2004).

In Sammamish, a red maple (12" DBH) growing along a residential street would conserve about 50 Kilowatt / hours of electricity for cooling and reduce consumption of oil or natural gas by two (2) therm(s) (www.treebenefits.com, 2018). This can be represented as about \$5.49 in energy savings. A 24" DBH Douglas fir conserves 90 Kilowatt / hours valued at \$7.19 per tree.

Common Name	Scientific Name	DBH (inches)	Average Benefits	Conserved (Kilowatt hours)	Energy Value
Purple leaf plum.	<i>Prunus cerasifera</i>	6.00	57.00	15.00	\$1.74
Red maple	<i>Acer rubrum</i>	12.00	133.00	50.00	\$5.49
Bigleaf maple	<i>Acer macrophyllum</i>	24.00	191.00	88.00	\$7.75
Douglas fir	<i>Pseudotsuga menziesii</i>	24.00	224.00	90.00	\$7.19

Air Quality

Urban trees improve air quality in five fundamental ways:

- Reducing particulate matter (e.g., dust and smoke)
- Absorbing gaseous pollutants
- Providing Shade and transpiration
- Reducing power plant emissions
- Increasing oxygen levels

Trees and forests protect and improve air quality by intercepting particulate matter (PM₁₀), including dust, ash, pollen, and smoke. The particles are filtered and held in the tree canopy where they are eventually washed harmlessly to the ground. Trees and forests also absorb harmful gaseous pollutants like ozone (O₃), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂). A net effect of increased tree cover in urban areas is a reduction in ozone concentrations (Dixon and Wolf, 2007). Urban forests have a positive impact on air quality through absorption of pollutants by vegetation canopy, sequestration of atmospheric carbon dioxide in woody biomass, and reduction of summertime air temperatures and associated ozone formation. Shade and transpiration reduce the formation of O₃, which is created during higher temperatures. Scientists are now finding that some trees may absorb more volatile organic compounds (VOCs) than previously thought (Karl, T. et al 2010; Science NOW, 2010). VOCs are a class of carbon-based particles emitted from automobile exhaust, lawnmowers, and other human activities.

Health, Aesthetic, Habitat, and Socioeconomic Benefits

While perhaps the most difficult to quantify, the health, aesthetic, habitat, and socioeconomic benefits from trees are among their greatest contributions. These benefits include:

- Human health
 - Reduced illness and reliance on medication
 - Quicker recovery from injury or illness
- Reduction in violent crime
- Beautification, comfort, and aesthetics
- Shade and privacy
- Wildlife habitat
- Opportunities for recreation
- Creation of a sense of place and history
- Heightened business activity
- Increased property values

Research has found that exposure to nature, including trees, has a healthy impact on humans both mentally and physically. Children with ADHD experienced reduced symptoms when they were exposed to green environments and spent time in nature (Faber and Kuo, 2006). Encounters with nearby nature (e.g., forest bathing, sitting under individual trees, time spent in parks and gardens) are important for walkability, weight loss, immune function, child development, mental health, and the treatment of senior dementia (Wolf, 2016). Research has also shown that hospital patients with access to live vegetation experienced shorter hospitalizations, faster recovery times, fewer intakes of postoperative analgesics, more positive physiological responses, and less pain, anxiety, and fatigue. Patients with views of living plants in their rooms also felt more positively about their rooms and evaluated them with higher satisfaction (Park, 2006).

Sociologists have found that green spaces also increase community health by reducing crime and aggressive behavior. Research shows that the more greenery around a building's surroundings

the fewer total crimes are committed. Residents in public housing in Chicago reported 25% fewer domestic crimes when landscapes and trees were planted near their homes (Kuo and Sullivan, 2001). Further, a study of individuals living in twenty-eight (28) identical high-rise apartment units found residents who live near green spaces had a stronger sense of community, better mental health, coped better with stress and hardship, were less violent, and managed problems more effectively than those living away from green space (Kuo and Sullivan, 2001). Green stormwater infrastructure is also associated with reduced narcotic use and distribution (Kondo et al., 2015). While some of these benefits are intangible and/or difficult to quantify, empirical evidence of these benefits does exist (Kaplan, 1989; Ulrich, 1986).

Trees and forest lands provide habitat (foraging, nesting, spawning, etc.) for mammals, birds, fish, and other aquatic species. Trees preserve habitat and create movement corridors for wildlife. Further, trees can offer pollinators a valuable source of flowering plants. By including an array of flowering trees that provide pollen and nectar in the urban forest, honeybees are provided with additional food sources. Habitat creation and enhancement increase biodiversity and complement many other beneficial functions of the urban forest (Haddad et al., 2015). This indicates a solution for conservation and restoration measures that improves landscape connectivity, which will reduce extinction rates and help maintain ecosystem services.

There is evidence that trees promote better business by stimulating more frequent and extended shopping plus a willingness to pay more for goods and parking (Wolf, 2007). Shoppers are willing to travel more often, for more time, and over greater distance to a retail district with trees, and once arrived, would spend more time at the destination (Wolf, 2013). Proximity to trees generates better school performance, lessens workplace illness, and improves concentration, all of which yield an increase to overall productivity. In addition, trees throughout the urban environment (and especially among vacant lot conversions and streets) promote active living connectors and reduce crime rates. Thus, trees provide for their community by generating new economic income and removing judicial system costs (Wolf, 2013).

Some of these benefits are captured as a percentage of property values, through higher sales prices where individual trees and forests are located. According to Donovan and Butry (2010), street trees increase residential property value and reduce the average time of selling a residential property. Their research also found that the benefits of street trees spill over to neighboring residences.

In Sammamish, a red maple (12" DBH) growing along a residential street increases adjacent property value by \$99 and increases leaf surface area by 233 square feet per year (www.treebenefits.com, 2018). Douglas fir (24" DBH) increases adjacent property value and leaf surface area by \$128 in property value and 301 square feet of leaf surface area per tree.

Common Name	Scientific Name	DBH (inches)	Average Benefits	Leaf Surface Area (ft ²)	Increased Property Value
Purple leaf plum.	<i>Prunus cerasifera</i>	6.00	57.00	111.00	\$47.00
Red maple	<i>Acer rubrum</i>	12.00	133.00	233.00	\$99.00
Bigleaf maple	<i>Acer macrophyllum</i>	24.00	191.00	281.00	\$119.67
Douglas fir	<i>Pseudotsuga menziesii</i>	24.00	224.00	301.00	\$128.00

What Do We Have?

To effectively manage the urban forest, it is essential to have knowledge and understanding of what exists today. This section lays the groundwork for the UFMP with historical context, current policies, practices and understanding about the existing state of the urban forest. As a summary and synthesis of available information, this section can be referenced as containing benchmark considerations when evaluating and implementing actions that will impact the urban forest in the future.

Community History

Prior to the 1800's, Sammamish was home to Native Americans, including Duwamish and Snoqualmie tribes. English settlements began to appear in the 1880s and 1890s with logging and farming activity. In the late 1930s through 1970s, the Sammamish plateau was popularized by resorts in places like Pine Lake and Beaver Lake. As the region's population grew, development on the plateau increased, and by 1985, the community began discussion about incorporation. The discussion continued over many subsequent years, and on August 31st, 1999, the City of Sammamish was officially incorporated (Dougherty, 2008). The Sammamish population continues to grow and, from 2016 estimates, is currently 63,773 people on a land area of twenty-one (21) square miles. To this day, and as evidenced by the abundance of remnant forest from the history of logging operations, the character of the City is defined by its trees.

History of Urban Forestry in Sammamish

As a relatively new city in King County, most of the current forest conditions can still be traced back to early logging and agricultural practices. More recent changes in the urban forest have been influenced primarily by new development. Homeowners in older homes around the City often have mature native trees like Douglas-Fir, Western red cedar and Big leaf maple around their property that could be considered second growth forest. Newer neighborhoods typically have a more diverse species palette of urban trees and the trees are younger.

Prior to the City's incorporation, the land was being governed and managed according to King County regulations. Early environmental planning to manage the growing population became a legal obligation through the Growth Management Act in 1990. Once the City incorporated, it was required to adopt a Sammamish Comprehensive Plan (SCP), which it did in 2003. This set the early stage for the City to adopt its own guiding principles and environmental quality goals that support this legislation. Trees were recognized as important to Sammamish in this early planning document. In 2004, the City adopted a Parks Recreation and Open Spaces Plan (PRO Plan), which gave additional direction to managing public natural areas in the City. It also includes one of the City's first visions for environmental conservation.

A third Plan, The Trails, Bikeways and Paths Plan (2004) influenced urban forest management in the City as part of a vision for an integrated system of transportation options that de-emphasized the differences between recreation facilities and transportation facilities. It included as Plan goals, environmental sensitivity to significant trees in trail development, and the importance of keeping room for trees in the streetscape environment for pedestrian value.

During the last decade, the SCP and the PRO Plan have undergone revisions since they were first drafted, with the most recent versions being the SCP in 2015, and the PRO Plan in 2018. While working through these Plan updates, trees began receiving official City recognition and protections through municipal ordinances passed in 2015.

From these related events, it is clear that the community has assumed an increasing level of care for the urban forest and would benefit from focused long-term strategic planning. Increasing regulations from the State and Federal Government for environmental stewardship requirements have also played a significant role in defining the level of care for the urban forest that exists in Sammamish today.

The Urban Forest Resource

Sammamish's urban forest includes all trees (public and private) within the limits of the city. A subset of the overall urban forest, the community tree resource is comprised of publicly-owned trees on rights-of-way, in parks, and at city facilities. The community tree resource is most actively managed by the City of Sammamish. However, because all trees contribute to the quality of life and provide critical environmental benefits to the community, there are policies and requirements for the preservation of the overall resource.

To gain a more comprehensive understanding of the urban forest, the City of Sammamish partnered with the University of Washington (UW) to provide an assessment of tree canopy and other primary land cover across the community. The assessment, completed in early 2018, was the result of a UW research project (Dyson and Patterson, 2018) that evaluated two (2) sources of high-resolution aerial imagery; the National Agriculture Imagery Program, and aerial imagery from the 2015 Regional Aerials (City Consortium project). A key outcome of the project is a GIS map layer of tree canopy across Sammamish.

Tree canopy is measured as the layer of leaves, branches, and stems of trees and other woody plants that cover the ground when viewed from above. The amount and distribution of leaf surface area is the driving force behind an urban forest's ability to produce benefits for the community (Clark et al, 1997). As canopy cover increases, so do the benefits. Understanding the location and extent of tree canopy is important to developing and implementing sound management strategies.

The results of the study provide a clear picture of the extent and distribution of tree canopy within Sammamish. The dataset enhances the City's existing Geographic Information System (GIS-database) and provides countless opportunities to analyze tree canopy in conjunction with other geographic, demographic, and socio-economic data layers. Analysis can be performed at virtually any level from the overall city to individual parcels. The information provides a foundation for making informed decision about management and policies effecting the urban forest, including:

- Benchmarking the location and extent of tree canopy along with other primary land cover
- The ability to assess changes over time
- Identification and prioritization of potential planting sites and underserved areas
- Opportunities enhancing wildlife corridors and trail systems with contiguous tree canopy

The data, combined with existing best management practices and emerging research, will help managers identify and assess urban forest opportunities and find a balance between growth and preservation.

Land Cover Summary

The City of Sammamish encompasses a total area of 20.6 square miles (13,228 acres) with 6,357 acres of tree canopy (Figure X). Davey Resource Group (DRG) analyzed the land cover data developed by UW to develop the following information that characterizes existing land cover in Sammamish:

- 48% (6,357 acres) existing canopy, including trees and woody shrubs

- 51% is coniferous tree type
- 49% is deciduous tree type.
- The majority of this canopy (75%) is in good health,
- 25% impervious surfaces, including roads, parking lots, and structures (3,311 acres)
- 12% (1,542 acres) is pervious surface, typically grass.
- 14% (1,794 acres) have understory and low growing vegetation.
- 2% (254 acres) open water.
- A potential for 59.8% canopy cover, considering suitable planting sites (1,556 acres) and the existing canopy (6,357 acres), for a total of 7,913 acres
- 51.3% (5,659 acres) of existing canopy is on privately-owned land
- 363 acres of tree canopy in 680 acres of parks.
- The average canopy in parks is 57.6% with Beaver Lake park having the most canopy 73.6% (58.31 acres)
- Trees are providing nearly \$3.1 million annually in air quality and stormwater benefits
- Stored carbon is valued at \$28.2 million.

FIGURE X: Landcover distribution

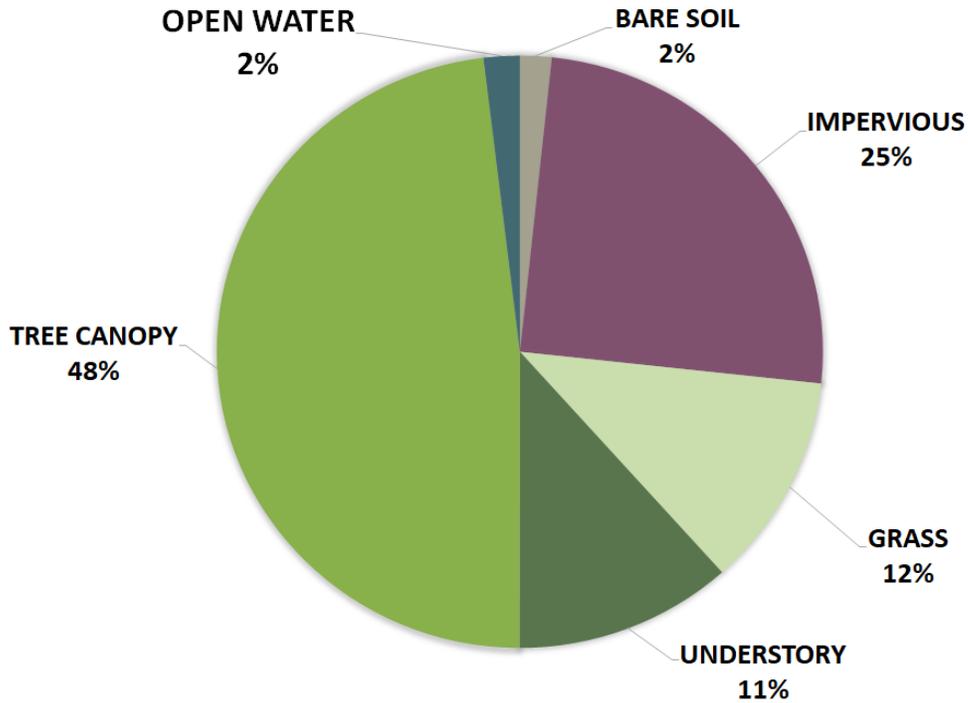
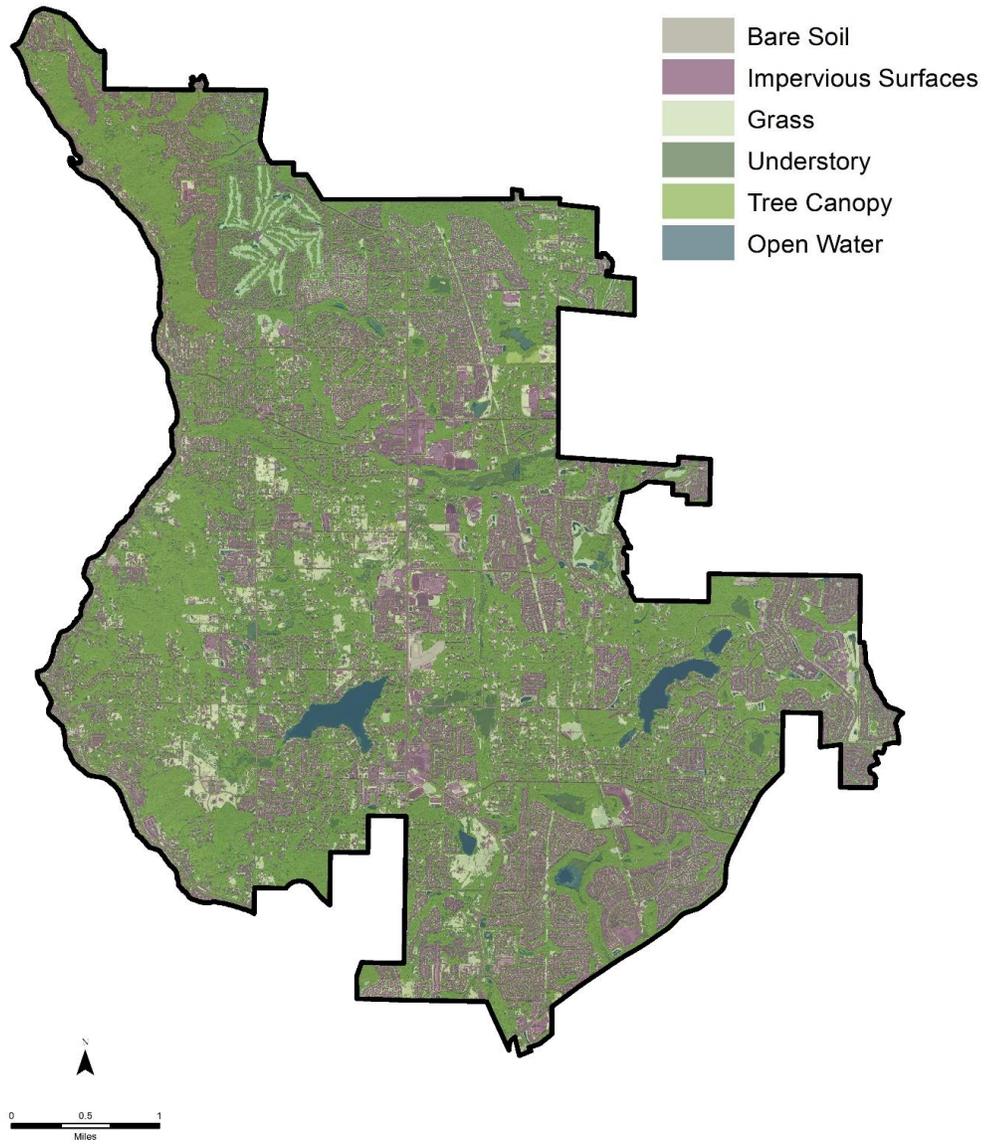
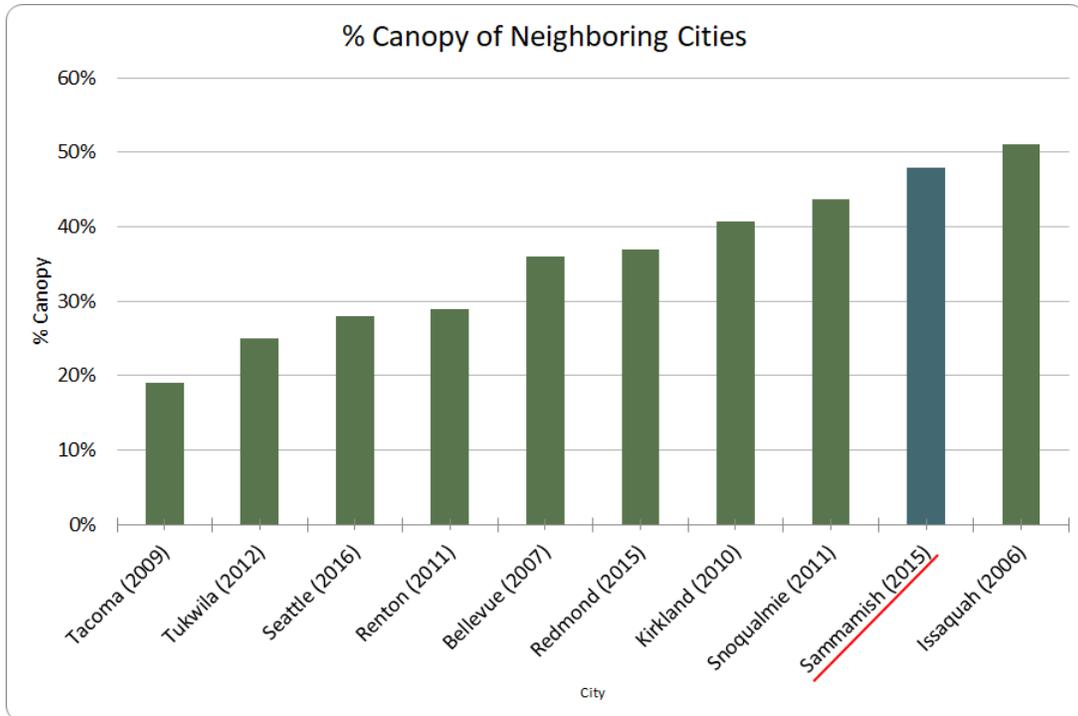


Figure X: Map Illustration of Land Cover Distribution



Relative to other municipalities in the region, Sammamish has more tree canopy than its neighbors. Based on a 2006 assessment, Issaquah's canopy was slightly higher (51%), however conditions may have changed over the last 12 years. Understanding regional canopy cover can provide greater context for urban forest planning in Sammamish.



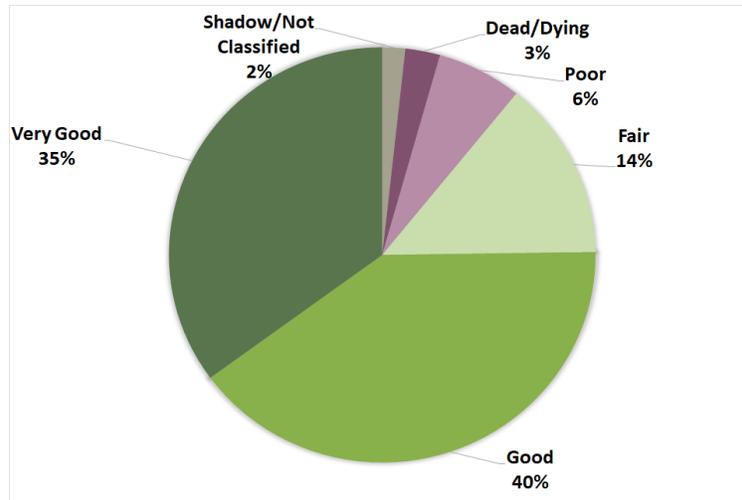
Forest Composition

The UW land cover assessment provides a basic indication of the forest composition, estimating that conifer species account for 51% of Sammamish's urban forest. Deciduous species account for the remaining 49%. The overall species composition was not determined.

Tree Canopy Health

Using methodology developed at UC Davis, California (Xiao and McPherson, 2005), DRG analyzed multispectral, high-resolution, spatial data to remotely assess the overall health of the urban forest. The methodology applies algorithms that generate a relative health index rating based on the reflection of infrared light off the canopy. While this process does not result in a condition (or health) rating for individual trees, it does identify areas where canopy is showing stress. The resulting GIS map layer can be used to target areas where further inspection is warranted. A site inspection, including observation, verification, and sampling (foliar/soil) can provide additional information for diagnosis and treatment if necessary.

The analysis determined that approximately 75% of tree canopy is in good health. Six percent (6%) of the overall tree canopy is showing indications of poor health and another 3% appears to be dead or dying (Figure x). This information indicates at least some level of functional loss in environmental benefits from 9% of the overall urban forest canopy. City staff have observed signs of laminated root rot, drought and other emerging pests or diseases of concern that may be accounted for within this assessment.



Environmental Services

Sammamish's land cover was analyzed using *i-Tree Hydro* and *Canopy* to estimate the environmental benefits to stormwater, atmospheric carbon, and air pollution. To date, trees in Sammamish are storing 800,558 tons of carbon in their leaves and woody biomass. The stored carbon is valued at \$28.2 million.

Each year, the urban forest is providing nearly \$3.1 million in additional benefits, including:

- Reducing 87.8 million gallons of stormwater runoff, valued at more than \$2.4 million.
- Improving air quality by removing 180 tons of pollutants (CO, NO₂, O₃, SO₂, and PM₁₀), valued at \$626,579.
- Sequestering an additional 26,859 tons of carbon, valued at \$946,916.

Watershed Sub-Basins

The City of Sammamish has identified and mapped 14 watershed sub-basins within the city limits. Stormwater runoff from these sub-basins flows into creeks and streams and eventually into Lake Sammamish. The Monohon sub-basin has greatest canopy cover (57%), followed by Panhandle (56%), and Beaver Lake (52%). Mystic Lake has the lowest canopy cover at 30%.

The largest sub-basin, Laughing Jacobs (2,129 acres) has 939 acres of tree canopy and an overall canopy cover of 44%. Based on existing land cover, the Laughing Jacobs sub-basin has the potential to support a total of 1,256 acres of tree canopy and 59% canopy cover.

Water quality mapping has identified Pine Lake Creek and Beaver Lake sub-basins as critical drainage areas with sensitive lakes (Sammamish, 2017). Beaver lake currently has 52% canopy cover that could potentially be increased to 61%. Pine Lake Creek currently has 49% canopy cover that could be increased up to 62% with additional tree planting. By identifying canopy metrics for sub-basins, the City has baseline measures to support targeted improvements using trees to improve water quality and watershed health.

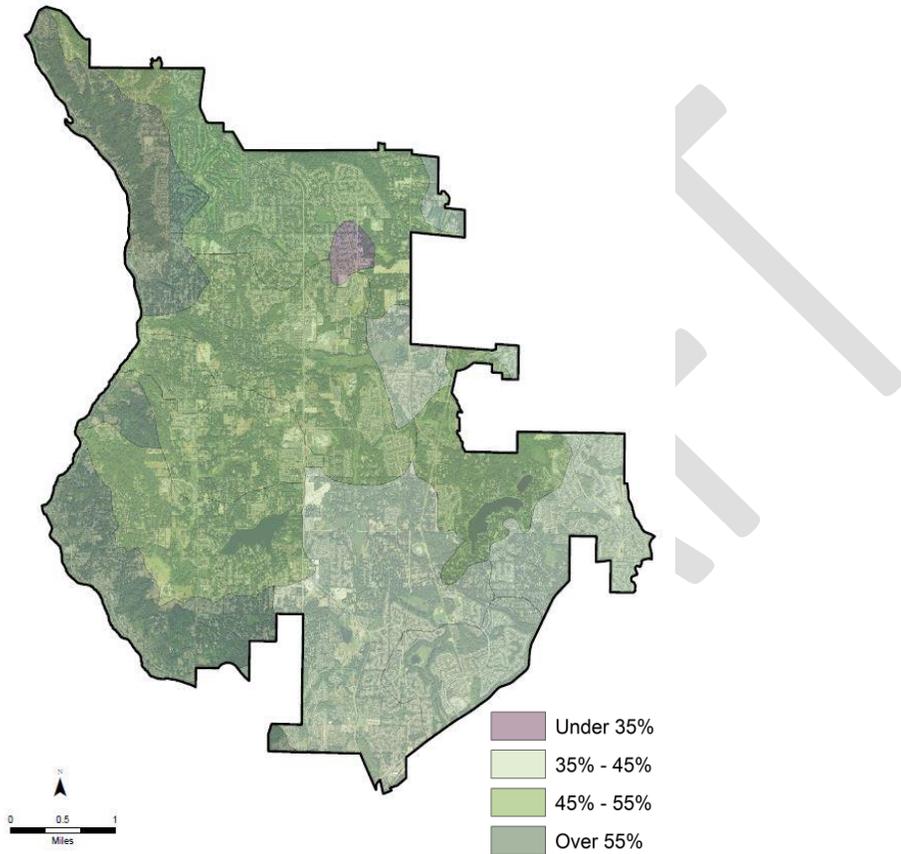


Figure X: Tree canopy by watershed sub-basin.

Sub Basin	Basin Acres	Coniferous Acres*	Coniferous % of Total Canopy	Deciduous Acres*	Deciduous % of Total Canopy	Canopy Acres*	Canopy Cover %	Maximum UTC %
Allen Lake	322.2	46.11	36.07	81.75	63.93	127.86	40.00	49.00
Mystic Lake	112.01	12.21	36.43	21.30	63.57	33.51	30.00	45.00
Beaver Lake	792.94	193.22	46.42	223.02	53.58	416.24	52.00	61.00
Evans Creek	1,944.48	566.29	57.13	425.00	42.87	991.29	51.00	61.00
Patterson Creek	967.95	157.48	43.16	207.39	56.84	364.87	38.00	52.00
North Fork Issaquah Creek	689.25	166.78	59.95	111.40	40.05	278.18	40.00	49.00
Laughing Jacobs	2129.04	526.08	56.04	412.61	43.96	938.69	44.00	59.00
Inglewood	1,700.97	364.86	46.58	418.49	53.42	783.35	46.00	59.00
Thompson	774.03	194.38	53.68	167.71	46.32	362.09	47.00	66.00
Panhandle	1,043.49	281.48	48.39	300.21	51.61	581.69	56.00	62.00
Monohon	1253.42	364.85	50.74	354.13	49.26	718.98	57.00	68.00
Pine Lake Creek	1,211.66	297.57	50.31	293.87	49.69	591.44	49.00	62.00
Zackuse	252.64	63.70	50.98	61.26	49.02	124.95	49.00	60.00
Issaquah Creek	29.47	3.19	34.58	6.04	65.42	9.23	31.00	76.00
AVERAGE	945	231.00	0.48	220.00	0.52	452	45.00	59.00

*Tree Canopy Acres may not equal original land cover metrics. The 7-class landcover dataset with the tree canopy for conifer/deciduous did not have data for the two missing areas with corrupt tiles. Evergreen canopy information was unavailable in those areas.

Tree Canopy by Park

Sammamish has twelve (12) parks and two (2) golf courses encompassing 680 acres. The average canopy cover in these areas is 57.7% (Table X). Steven and Rosina Kipper Preserve has the highest overall tree cover (97.5%), followed by Beaver Lake Preserve (95%), and Northeast Sammamish Park (82%). Illahee Trail Park has the least canopy cover at 11.7%.

Sammamish's largest park is Beaver Lake Park (79.2 acres). Beaver Lake Park has 73% (58.3 acres) canopy cover. Northeast Sammamish Park is the smallest park (5.8 acres) with 4.7 acres of canopy (82.0% canopy cover).

The two golf courses are privately managed properties with Sahalee Golf & Country Club being the largest. It has 44% (93.7 acres) tree canopy.

Overall, the land cover analysis identified 56 acres in all parks where additional trees might potentially be planted. Sammamish Commons has the greatest area of potential planting sites (18 acres).

Table X: Summary of tree canopy by park.

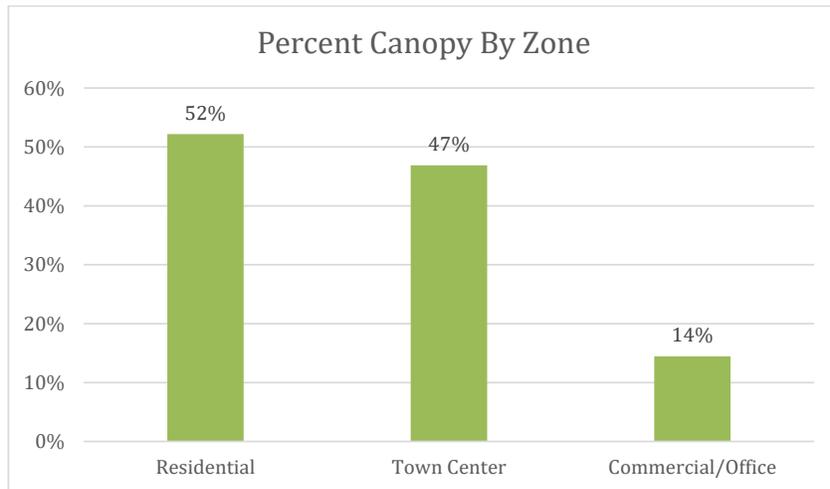
Park	Acres	Canopy Acres	Canopy Cover (%)	Preferred Plantable Acres	Preferred Plantable Percent (%)	Maximum UTC (%)
Beaver Lake Park	79.18	58.31	73.64	4.49	5.67	79.31
Big Rock Park	36.29	23.68	65.25	11.4	31.41	96.66

East Sammamish Park	18.83	7.94	42.18	1.15	6.1	48.28
Ebright Creek Park	12.37	5.17	41.81	3.47	28.02	69.83
Illahee Trail Park	12.73	1.49	11.7	3.8	29.86	41.57
Klahanie Park	64.14	36.26	56.52	0.43	0.68	57.2
NE Sammamish Park	5.75	4.71	82.02	0.38	6.54	88.56
Pine Lake Park	18.99	13.21	69.56	0.48	2.52	72.08
Sammamish Commons	39.06	8.45	21.64	18.27	46.78	68.42
Sammamish Landing Park	7.48	5.28	70.55	1.43	19.11	89.66
Sahalee Golf & Country Club	212.2	93.71	44.16	1.90	0.89	45.06
Plateau Golf & Country Club	100.28	35.75	35.65	8.47	8.45	44.1
Beaver Lake Preserve	55.64	52.85	94.99	0.36	0.65	95.64
Steven & Rosina Kipper Preserve	17.11	16.68	97.49	0.03	0.17	97.67
TOTAL	680.05	363.5	53.54	56.05	8.00	61.69

Tree Canopy by Zone

One way to explore urban tree canopy (and understand its potential) is to look at how it relates to zoning. Cities establish zoning to manage development. Zoning is the practice of mapping designated zones to regulate the use, form, design, and compatibility of property development. Tree canopy cover can vary widely between different zoning classifications. In Sammamish, zoning classifications can be generalized as Commercial, Residential, and Town Center.

Residential parcels make up the largest zoning classification (11,370 acres). Residential zoned parcels have a total of 5,934 acres of tree canopy and an average canopy cover of 52%. Commercially zoned parcels have the lowest canopy cover (14%).



Zoning Code	General Land Use Translation	Acres	Canopy Acres	Canopy Percent	Preferred plantable acres	Preferred plantable percent (%)	MAXIMUM UTC (%)
CB	Commercial	60.44	6.62	10.96	2.68	4.43	15.39
NB	Commercial	1.97	0.28	14.04	0.05	2.3	16.34
O	Office	12.17	3.87	31.77	0.86	7.03	38.8
R-1	residential	2,488.19	1,516.50	60.95	321.88	12.94	73.88
R-1_Anx	residential	0.04	0.02	47.79	0.00	3.66	51.45
R-12	residential	65.38	21.73	33.24	6.21	9.5	42.74
R-18	residential	139.88	45.33	32.41	11.23	8.03	40.43
R-4	residential	6,404.85	3,404.46	53.15	725.01	11.32	64.47
R-4_Anx	residential	0.00	0.00	0.00	0.00	0	0
R-6	residential	2,181.33	916.89	42.03	320.52	14.69	56.73
R-8	residential	90.61	29.45	32.51	11.59	12.79	45.29
TC A-1	Town Center	26.71	10.81	40.47	9.99	37.4	77.87
TC A-2	Town Center	19.15	10.04	52.45	2.55	13.3	65.75
TC A-3	Town Center	9.87	2.86	28.99	2.83	28.69	57.68

TC A-4	Town Center	6.88	1.67	24.22	2.72	39.51	63.73
TC A-5	Town Center	1.86	0.20	10.72	0.78	41.82	52.53
TC B	Town Center	75.84	43.34	57.14	14.26	18.8	75.94
TC C	Town Center	36.86	23.54	63.86	7.89	21.4	85.26
TC D	Town Center	38.97	8.44	21.65	15.08	38.7	60.35
TC E	Town Center	12.58	6.32	50.22	2.10	16.73	66.95
TOTAL	Commercial/Office	74.58	10.77	14.44%	3.59	4.81%	19.25%
TOTAL	Residential	11,370.28	5,934.38	52.19%	1396.44	12.28%	64.47%
TOTAL	Town Center	228.72	107.22	46.88%	58.20	25.45%	72.32%

Tree Canopy and Development

Urban tree canopy is routinely impacted by development. To preserve existing canopy, the City has municipal codes that limit canopy loss and require replacement tree planting when a property is developed. Through a GIS query of undeveloped properties (2018), the City estimates there are 779 acres of land with a high potential for development. These parcels currently have 561.6 acres of tree canopy. This represents nearly 9% of the overall tree canopy in Sammamish. If these areas were completely developed with no canopy retention, overall canopy cover in the community would be reduced to less than 44%. This is an unlikely scenario as most properties require some tree retention and replanting during development.

The following table illustrates a range of impacts to UTC in scenarios where tree retention and tree replacement (as required in existing City code) is successful.

	Land Acres	Canopy Acres	Current Canopy Percent
Citywide Total	13,228.85	6,357.42	48.06%
Potential Development Acres	778.90	561.59	72.10%
Future Canopy Scenarios	Land Acres	Possible Canopy Acres	Possible Canopy
After Development - No Significant Tree Retention	13,228.85	5,795.83	43.81%
After Development - 25% Significant Tree* Retention	13,228.85	5,936.23	44.87%
After Development - 40% Significant Tree* Retention	13,228.85	6,020.47	45.51%
*Assumed Medium size crown diameter of 30 ft (0.162 acres of canopy)			

Owners of residential homes and developed property are permitted to remove either sixteen or twenty-four (16 or 24) significant trees within a rolling ten-year (10-year) period, depending on the zoning of the property. In the unlikely scenario where all property owners applied for their maximum annual removal of significant trees and assuming these are medium stature trees (0.016 acres of canopy), the City could see the permitted removal of 2,302 acres of canopy, reducing community-wide canopy to 30.7% in 10 years' time.

Zoning Code	Acres	Canopy Acres	Canopy Percent (2015)	Removal Rate Per Acre- # of Significant Trees over 10 years period	Canopy Acres Removed per acre of Lot	Canopy Acres Retained	Future Canopy Percent (2025)
CB	60.44	6.62	10.96	16.00	0.26	4.9	8.11%
NB	1.97	0.28	14.04	16.00	0.26	0.2	10.52%
O	12.17	3.87	31.77	16.00	0.26	2.9	23.53%
R-1	2,488.19	1,516.50	60.95	24.00	0.39	925.1	37.18%
R-1_An timer	0.04	0.02	47.79	24.00	0.39	0	30.50%
R-12	65.38	21.73	33.24	10.00	0.16	18.2	27.84%
R-18	139.88	45.33	32.41	10.00	0.16	38	27.14%
R-4	6,404.85	3,404.46	53.15	24.00	0.39	2076.8	32.42%
R-4_An timer	0	0.00	0.00	n/a			
R-6	2,181.33	916.89	42.03	24.00	0.39	559.3	25.64%
R-8	90.61	29.45	32.51	24.00	0.39	18	19.83%
TOTAL	11,444.86	5,945.15	52.00%			3,643.30	31.83%
Citywide	13,228.85	6,357.42	48.00%			4,055.50	30.66%

Both of these scenarios explore the impacts of tree removal to the overall tree canopy. However, these scenarios do not account for tree replacements (planted trees), which would provide additional mitigation to the impacts from tree removal. Under current code requirements, for every tree removed in these scenarios, at least one (1) tree needs to be planted. Tree replacement requirements have the potential to replace some of lost canopy over time, recognizing that it may take 15 years or more for newly planted trees to mature to a moderate stature.

Canopy Fragmentation

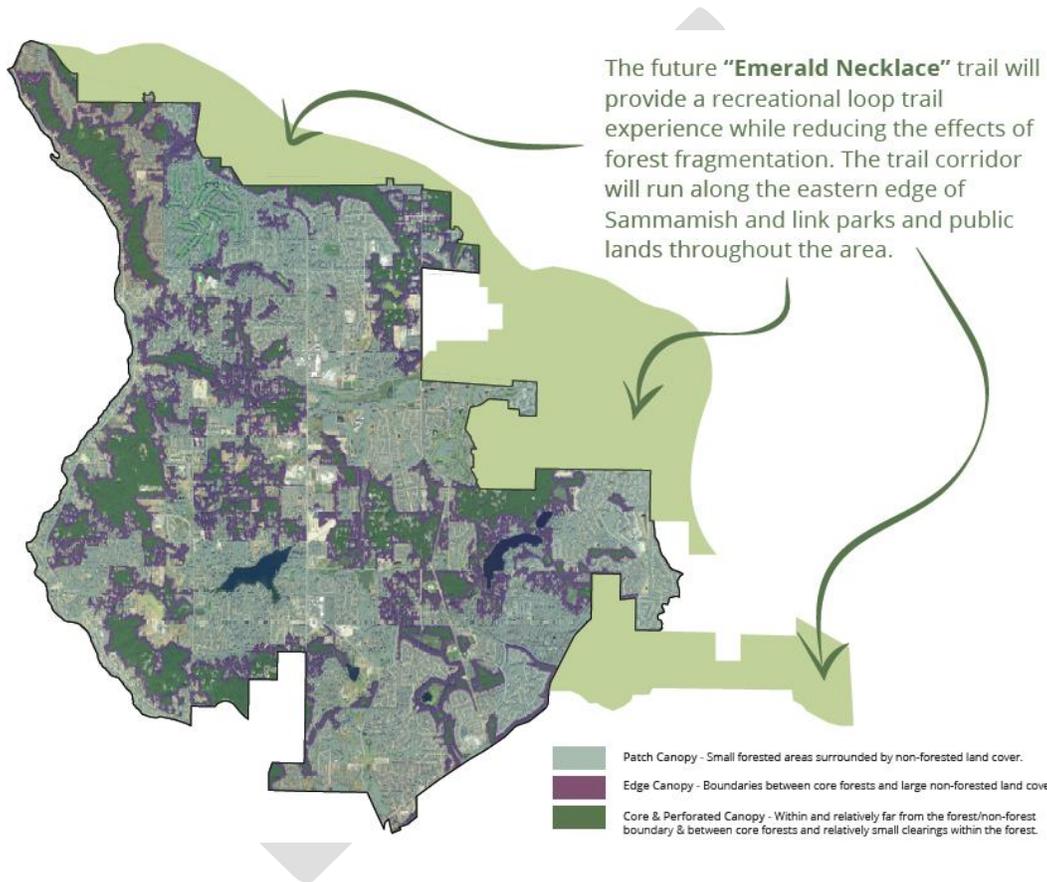
The quality of tree canopy cover can be further explored by analyzing fragmentation. The overall health of the urban ecosystem is highly dependent on the ability of the trees, plants, wildlife, insects, and humans to interact collectively. Ecosystem health and diversity are supported when core canopy is contiguous, providing linkages between multiple patches of forest. DRG analyzed Sammamish's tree canopy for fragmentation to help identify where additional tree planting can reduce fragmentation and provide greater support for wildlife corridors and trail systems (Map x).

Canopy fragmentation analysis identified the following:

- **25.82% (1641.29 acres) of Core and Perforated Canopy** - Tree canopy that exists within and relatively far from the forest/non-forest boundary (i.e., forested areas

surrounded by more forested areas) is core canopy. Patches of small clearings can be described as perforated canopy. In the analysis methods provided by the UW, these two were combined.

- **33.97% (2,159 acres) of Edge Canopy** - Tree canopy that defines the boundary between core forests and large core forests and large non-forested land cover features, approximately 328 feet. When large enough, edge canopy may appear to be unassociated with core forests.
- **40.22% (2,557 acres) of Patch Canopy** - Tree canopy of a small-forested area that is surrounded by non-forested land cover.



The City of Sammamish has been working with King County and neighboring municipalities to retain more forest connectivity throughout areas on the east side of the City. This effort is referred to as the *Emerald Necklace*, and it is where the City is partnering to create a recreational loop trail experience while reducing the effects of forest fragmentation. The trail corridor will run along the eastern edge of Sammamish to link parks and public lands throughout the area. With the inclusion of a forest fragmentation GIS map layer, the City can prioritize planting efforts to strengthen the effectiveness of these forest corridors.

Priority Planting

Some planting sites are more beneficial than others. To identify and prioritize planting potential areas, DRG assessed environmental features to determine benefits to stormwater interception, erosion control, urban heat islands, and existing canopy. Weighted consideration was provided for proximity to hardscape and canopy, soil permeability, slope, road density, and a soil erosion factor (K-factor) (Table X). Each feature was assessed using a separate grid map. A value between zero (0) and four (4) (with zero (0) having the lowest risk potential) was assigned to each feature/grid assessed. Overlaying these grid maps and averaging the values provided the risk potential at any given point. A priority ranging from very low to very high was assigned to potential planting areas based on the calculated average (Map X).

The analysis identified 1,495 acres of potential planting area assigned to the following priorities:

- Very High–226.3 acres
- High–273.5 acres
- Moderate–372.8 acres
- Low–373.8 acres
- Very Low–249 acres

As Sammamish evaluates where to plant more trees, priority planting data, combined with existing and emerging urban forestry research and applications, can help guide decisions that will yield the highest return of environmental benefits. The environmental factors for each site will vary, meaning the most optimal tree will vary as well. Increasing the number and size of trees in high priority sites will yield the highest return on investment.

Table X. Factors Used to Prioritize Tree Planting Sites

Dataset	Source	Weight
Proximity to Hardscape	Urban Tree Canopy Assessment	0.30
Slope	National Elevation Dataset	0.25
Road Density	National Hydrologic Dataset	0.15
Soil Permeability	Natural Resource Conservation Service	0.10
Soil Erosion (K-factor)	Natural Resource Conservation Service	0.10
Canopy Fragmentation	Urban Tree Canopy Assessment	0.10

Trees planted in the next several years should be planted in areas where they will provide the most benefits and return on investment. A very low priority area is one where planting a tree will do little to impact stormwater, heat islands, and environmental conditions. A very high priority planting site likely has high rankings in at least two (2) factors, and thus, tree planting in these areas is highly strategic, addressing multiple urban issues at once (Map X).

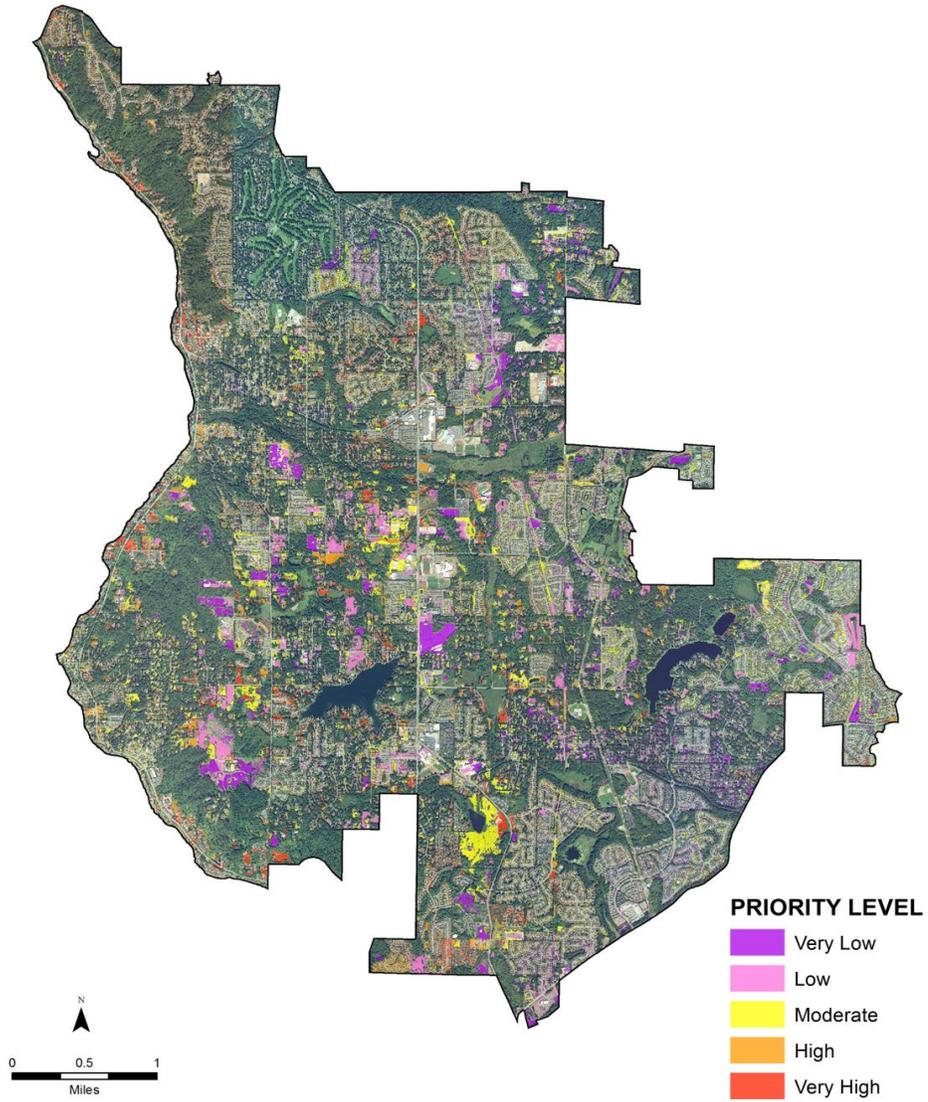


Figure X: Map illustration of priority planting opportunities.

The Community Urban Forest Resource (Public Trees)

Public trees along rights-of-way, in parks, and at city facilities are defined as the community urban forest. These trees are actively managed by the City and provide the best indicators to showcase well-managed and sustainable urban forest conditions. Since trees are relatively long-lived organisms, the urban forest often develops into a combination of well-adapted, high-performance species mixed with other species that over time have proven to be less desirable and require more attention. As an urban forest evolves, managers revise their objectives for individual tree species based on past performance and emerging prospects to make efficient use of funding and labor resources. In 2017, the City began formally collecting information about public trees in parks. That same year, the Department of Public Works conducted a remote sensing project that identified the location of street trees. Both of these projects were intended to increase awareness of issues and liabilities and increase operational efficiency.

Park Trees

The City of Sammamish includes fourteen (14) parks organized into three categories; city parks, golf/country clubs, and nature preserves. Together, these parks encompass 680.1 acres (5.1% of all land area). The Parks and Recreation department began an inventory and inspection of trees in 2017 beginning within Beaver Lake Park and Pine Lake Park. In Beaver Lake, 1,091 trees were inventoried. The Pine Lake inventory identified 1,043 trees. The results of these projects summarized the trees according to their safety risk in low, moderate and high categories. The inventory also identified maintenance needs. The results are being used to plan and budget for tree care work. The department anticipates collecting inventory data at other parks in the coming years.

Table X: 2017 Tree Assessment Summary in Beaver Lake and Pine Lake

	Acres Assessed	Low Risk	Low/Moderate	Moderate	Moderate/High	High Risk	Inventory Total
Beaver Lake Park	17	1004	55	27	5	0	1091
Pine Lake Park	9	914	96.00	27	4	2	1043
Total	26	1918	151	54	9	2	2134
% of Trees	--	89.88%	7.08%	2.53%	0.42%	0.09%	100%

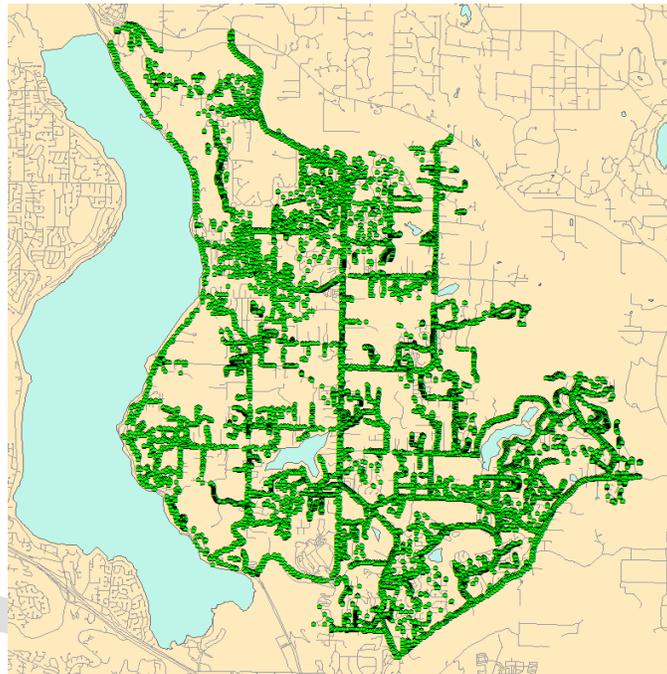
Street Trees

Trees within or adjacent to the public right-of-way are referred to as street trees. For safety and liability, street trees generally require the most active and intensive management. These trees often pose challenges to adjacent infrastructure, lifting sidewalks and pavement. They require pruning to maintain visibility and clearance for vehicles and pedestrians. According to a 2017 GIS survey commissioned by the City, there are an estimated 15,988 trees within the right-of-way that are likely owned by the City (Figure x). The project used remote sensing and did not include any assessment of tree health or maintenance needs. It did, however, identify tree type; with 2,245

trees identified as conifer species and 7,643 as deciduous. The project identified an additional 6,100 clusters of trees of unknown tree type.

The information gathered from this project provides very few metrics useful for planning and management. As a result, the City is still reliant on public reports and staff inspections to identify tree maintenance concerns within the right-of-way. A complete accounting of safety risks and liabilities remains largely unknown. This creates challenges for anticipating and budgeting for maintenance needs from year to year.

Figure X: A map illustration of the Sammamish's street tree population (2017)



Summary Considerations about the Urban Forest

The UTC assessment establishes a GIS data layer that can be used in conjunction with other map layers to prioritize planting sites and increase canopy cover strategically. Sammamish existing tree canopy covers 48% of the City and decision-makers can set a target canopy cover goal to pursue. With this UTC assessment, urban forest managers have the following opportunities to help balance between human population growth and tree preservation:

- Define targeted canopy objectives for the community and identify actions that will support policy objectives within the Comprehensive Plan.
- Use priority planting site analysis to identify new tree planting locations that maintain the City's forested character.
- Use GIS canopy and land cover mapping to explore lower canopy watersheds (sub-basins) and identify potential planting sites when off-site restoration efforts are required from other projects.
- Increase canopy with tree planting in areas of patch and fragmented canopy to reduce forest fragmentation and improve wildlife habitat and corridors.

In addition, urban forest managers have the following opportunities to leverage this information to manage risks and liabilities:

- Prioritize inspection of public trees based on preliminary canopy health assessments.
- Utilize forest fragmentation results to investigate trees along canopy edges for laminated root rot.
- Refine development codes to offer more options for tree preservation objectives. Improve alignment with canopy cover objectives rather than specific tree retention requirements.

Urban Forest Management

The care and management of Sammamish’s urban forest is performed by a combination of City staff and contracted professional services. Currently, management of the community urban forest is focused primarily on public safety and responding to environmental stewardship expectations. The following sections provide greater detail about current operations and policies. These sections also explore how urban forestry management connects with the community through volunteer efforts and engagement with local non-profit organizations who share similar values and objectives for the urban forest in Sammamish

Community Tree Care

Currently, three (3) departments share responsibility for the protection and management of Sammamish’s urban forest; Community Development (DCD), Public Works (PWD), and Parks and Recreation (PRD). Management and decision-making authority are based on the location of the trees. There is no single position or leadership team with overarching responsibilities for guiding the management, preservation, and care of the urban forest. Areas of responsibility are as follows:

- The DCD oversees the development and implementation of permits, codes, and land use rules. They are the main department in oversight of trees located in private property developments.
- PWD developed the approved tree list (Public Works Standards, Appendix F, 2016) and performs service calls to reactively maintain tree conflicts near the Rights-of-Way.
- PRD provides planning and care for trees within City parks.

As issues arise, the responsible department assigns staff and identifies actions to resolve the situation (Table X).

Table X: Decision matrix for urban forest management in Sammamish

Tree Location	City Department	Responsibility
Trees on Private Property	Community Development	Oversees Tree Management in Developments
		Permits for Tree Removal
		Permits for Tree Pruning
		Permits for Tree Planting
Trees in Parks	Parks and Recreation	(Permits Required)
		Hazardous Tree Inspections
		Tree Pruning
		Tree Removal
Trees within City Rights-of-Way and City Facilities	Public Works	Tree Planting
		(No Permits Required)
		Hazardous Tree Inspections
		Tree Pruning
		Tree Removal
	Reviews Plans from Planning Department	

Tree Maintenance

Pruning serves to maintain the health, safety, structure, and aesthetic value of individual trees and is necessary on a periodic basis as trees grow and increase in diameter and canopy. Tree longevity and stability are enhanced with structural pruning from a young age. Structural pruning can also reduce the cost of maintenance over time by reducing the number and size of branches that require removal on mature trees and the amount and size of tree debris. Industry best practices recommend rotational pruning every five to seven years for all public park and street ROW trees.

Maintenance for public trees can generally fit into two main categories: rotational (routine) pruning and safety (risk management), although risk reduction is also a goal of routine pruning. In instances where trees are near busy streets, playgrounds, multi-use paths, and pedestrian areas, pruning can significantly reduce the risk of tree failure. Pruning is also required to ensure visibility in the “sight triangle” at street intersections as well as for traffic signals and signs.

Currently, most tree maintenance is performed on a reactive basis using internal staff. Work is prioritized based on safety and available resources. Both PWD and PRD conduct maintenance with a combination of City staff and contractors. City staff perform light tree pruning from the ground and removal of small trees. Larger tree projects are handled by contracted arborists. Tree maintenance on private property is the responsibility of the property owner, however a permit is required when trees are being removed.

Staffing Levels

[Needs client feedback. DRG is unclear which staff positions/titles are the most engaged in urban forestry.]

Currently, an **estimated sixteen (16)** City staff positions respond or manage tree issues on at least an intermittent basis every week. Leadership within the three departments will collaborate on projects and share resources when necessary (such as in tree planting projects) but there is no formal policy on resource sharing, and no department has a position designated as a Full-Time Employee (FTE) dedicated to urban forestry. City staff also use contractors for both tree care consulting and tree work to meet workload demands. The following table benchmarks the time contributions required by City staff.

City Services	Common Urban Forestry Related Activities	Estimated Hours per Week*
Permit Intake and Review	Development plan review for compliance with tree protection codes Public inquiries (online, phone and counter)	20 hours (DCD)
Code Enforcement & Complaint Investigation	Investigating and resolving tree complaints Investigating and resolving infrastructure damage complaints.	5-10 hours (DCD)

Parks & Public Tree Maintenance	Tree planting and establishment	25 hours (PWD)
	Structural pruning on smaller trees Inspection and identification of hazardous trees	18 hours (PRD)
Contract Management	Managing contract tree crews	2 hours (DCD)
Emergency Response	Community Service Requests Response Management	0
Comprehensive (Long-range) Planning	Urban Forest Management Plan stewardship Federal, state grant procurement	0
Community Education Action and Outreach	Volunteer events Coordinated tree planting Neighborhood association Support Website Content and Public Education	30 hours
Tree Board Meetings	Addressing public issues related to trees.	0

*NOTE: "0" estimated hours per week does not mean that no time is spent on the activity, but that the time spent is very occasional and not measurable on a weekly basis.

Service Levels - Streets and Public Property (not parks)

PWD handles tree maintenance on all rights-of-way and all public property except parks. While the City does have access to a chipper truck, most projects that require such equipment are contracted out. PWD does not need to submit removal tree permits to remove high-risk trees from the ROW. Information about tree work performed by PWD is largely unmaintained. Although staff have access to a GIS application (ArcGIS Collector App), which allows staff to easily add lines, points, and shapefiles to GIS databases, they do not keep detailed records of the trees they inspect or work on. Staff have explored using the Tree Collection App that is pre-built for street tree inventory management but have not implemented it.

Service Levels - Parks

PRD handles the planning and maintenance of public trees on park lands with thirteen (13) staff members. In 2017, PRD had conducted tree health assessments for two (2) parks as part of a parks tree inventory program. The health assessments are conducted to record the structural and biological health of trees. Inspection priority was given to trees located in areas with a history of storm damage from southerly winds. The PRD is integrating tree health assessments as part of its routine duties, but most tree maintenance occurs as public safety or tree health issues are identified and prioritized.

Service Levels - Private Property

Sammamish has extensive tree protections and replacement requirements which impact tree management on private property in their development code ([SMC 21A.37](#)). Trees on private property are the responsibility of the property owner and can be cared for without a permit. However, once a tree is being considered for removal, property owners are required to communicate and seek approval with DCD through a permit process. This approval is considered either through a tree removal permit or it may be included in conjunction with another land use approval such as a preliminary plat grading permit.

Staff Training

The science of arboriculture and the management of urban forests are domains that are increasingly recognized as special areas of expertise. Credentials are increasingly requested by many municipalities as evidence of competency. Bachelor's degrees in Forestry, Urban Forestry, Environmental Sciences, and Horticulture are often the base requirements for leadership roles in urban forest management. Professional credentials can also demonstrate competency, with the most widely accepted credentials in Washington State coming from the International Society of Arboriculture (ISA).

The City provides ongoing training to any staff handling tree maintenance equipment including chainsaw, chipper and truck safety. Stakeholder interviews revealed that landscape maintenance workers in Sammamish receive routine (annual) training on structural pruning or tree care. The following is a summary description of staff resources and training within individual City departments:

- In DCD, staff are trained to interpret ordinances related to trees, but rely on reports by ISA certified arborists when necessary to render decisions. Staff within development services have backgrounds in various fields but there are no ISA certified arborists within development services staff.
- The PWD has a director with degrees in civil engineering and organizational development. In addition, the department has engineers on staff who can successfully consider relevant tree issues in terms of asset and infrastructure management, but tree care expertise is not required for any staff in this department. Tree related issues are resolved based on previous experiences with similar issues at the city. When additional expertise is necessary, ISA certified arborists are contracted. Typically, two (2) to three (3) tree care consultants are held on retainer for operational maintenance and plan review.
- PRD leadership includes staff with advanced degrees in landscape architecture. While some are trained in advanced tree climbing, they rarely perform tree climbing activity.

Equipment and Tools

City staff use common arborist tools (chainsaws, shovels, pruning saws etc.). The City has plans to purchase a lift truck in 2019. When tree work is substantial, the City will contract arborist companies (with ISA certified arborist supervision). City staff expressed that they do not have a suitable truck for watering new plantings.

Tree Acquisition and Quality Control

For City staff, replacement trees are often planted with the help of machinery due to the size requirements defined in municipal code. PRD performs visual inspections of trees as part of routine safety inspections, but inspections are undocumented. Most proactive tree management on park properties are typically associated with care for trees after planting to encourage successful establishment. Activities include watering, installing or removal of stakes and light pruning.

Discussions with City staff involved in acquiring and planting trees did not reveal any standard practices to ensure the quality of the trees during acquisition. As trees are planted, there is no planned follow-up or warranties managed with new trees. When trees are transplanted from an existing site to a new site, there is no follow-up. The City collaborates with volunteer groups and non-profits, and some of these members will temporarily store trees scheduled to be replanted on public property.

Funding

Stable and predictable funding is important to effective and efficient management of the urban forest. Trees are living organisms, constantly growing and changing over time and in response to their environment. Tree health and structure are influenced by a variety of biotic and abiotic factors, including nutrition, available water, pests, disease, wind, and humidity. With regular monitoring and maintenance, the negative consequences of these external influences on tree health and structure can be mitigated to increase the benefits and longevity of trees.

Young trees benefit greatly from early structural pruning and training. Simple, minor corrections can be applied cost effectively when a tree is young. However, if left unattended, these structural issues can increase liability and be very expensive to correct as trees mature. Eventually they may be impossible to correct without causing greater harm to the overall health of the tree.

Through regular monitoring of tree health, many nutritional deficiencies or toxicities, pest infestations, and diseases can be mitigated. Managers can also take preventative measures to ensure that these issues do not affect a greater part of the population. Some pests and diseases can be extremely destructive and costly to respond to, such as the issues of laminated root rot already found in some Sammamish parks.

Consistent funding is also critical for effective management of trees as they near the end of their life cycle. Over-mature trees often require more frequent inspection and removal of dead or dying limbs to reduce the risk of unexpected failure. A stable budget allows urban forest managers to program the necessary tree care at the appropriate life stage when it is most beneficial and cost effective.

As of 2017, the annual City budget for urban forestry services is \$518,274, approximately 0.3% of the overall municipal budget.

Table X: 2017 Municipal Urban Forestry Budget

Urban Forestry Item	Expenditure
ROW Landscape	\$173,774
Typical Capital Project	\$100,000
Arborists	\$96,000
Tree Removal	\$60,000
Tree Maintenance	\$36,000
Volunteer Activities	\$30,000
Assessments/Reports	\$15,000
Office & Operating	\$7,500
Total	\$518,274.00
Sammamish Population	63,773
Budget Per Capita	\$8.13

The total urban forestry budget is the sum of forestry budgets from three (3) departments; Parks and Recreation, Public Works, and Community Services (Planning Division). Together, the three (3) departments manage the urban forest. Each department has their own distinct budget for tree management based on their responsibilities. For example, the Parks and Recreation department has \$30,000 allocated for volunteer activities while the Public Works department has \$20,000 allocated for storm response and clean-up (\$10,000 for arborists and \$10,000 for tree removals). 70% of the total urban forest budget is from the Public Works department, in large part because the Public Works department is responsible for rights-of-way landscaping.

2017 Budget for Tree Care by Department

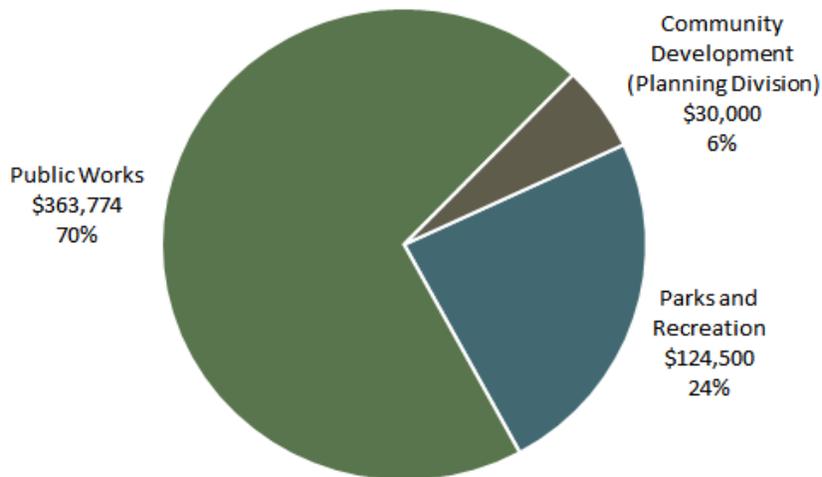


Figure X: 2017 Urban Forestry Budget by Department

With a population of roughly 63,773, the urban forestry budget represents a per capita investment of \$8.13, which is higher than the national average of \$7.50 (Arbor Day Foundation, 2016). To maximize the value and measure the effectiveness of the budget, community outreach events provide an opportunity to measure community satisfaction with tree care and forestry operations and gauge the sufficiency of the budget to meet the expectations of the community. In addition, regular assessments can quantify the benefits of the urban forest and show the return on investment for urban forestry expenditures.

Tree City USA

The Arbor Day Foundation is a 501(c)(3) nonprofit conservation and education organization founded in 1972 in Nebraska, United States by John Rosenow. It is the largest nonprofit membership organization dedicated to tree planting and provides the framework necessary for communities to manage and expand their public trees (The Arbor Day Foundation, 2012). Cities can achieve Tree City USA status by meeting four core standards of quality urban forestry management:

- (1) Maintain a tree board or department that is legally responsible for the care of city trees.
- (2) Enact a community tree ordinance which provides clear guidance for planting, maintaining, and removing trees from streets, parks, and other public places.
- (3) Document the spending of at least \$2 per capita toward the planting, care, and removal of city trees.
- (4) Celebrate Arbor Day!

As of this publication, the City of Sammamish dedicates \$518,274 towards total community forestry expenditure, and with a population of roughly 63,773, has a per capita investment of \$8.13. However, the City is not currently a Tree City USA.

Major Changes and Threats to the Urban Forest

The City recognizes that strategic planning efforts must include consideration of the major changes and threats to urban forest sustainability that are above and beyond the natural processes that occur within the ecosystem, thus should include a long-term response in this plan. In particular, the City recognizes how climate change, development (human population growth) and major diseases and pests can have significant impacts on the sustainability of the urban forest as it exists today.

Climate Change

Projections on climate change suggest that Washington will have increased temperatures and decreased precipitation during future growing seasons (WA DNR, 2018). These changes will contribute to tree stress, making them more susceptible to insects and diseases. Historical evidence suggests that tree mortality is likely to increase significantly. The extensive droughts of 2012 and 2015 contributed to greater than expected tree mortality and damage across the state. Extraordinary weather events are likely to increase in years to come, including more frequent and stronger wind events. Climate changes will also create changes in the population dynamics of forest insects and pathogens. Research on climate change in these complex ecosystems is challenging and still evolving, and there is no clear consensus on future outcomes.

Development (loss of open space and forest)

Infrastructure is a necessary part of the development associated with a growing human population but can also have devastating impacts on the environment. Development can impact the urban forest and reduce overall canopy, health, and resilience. Development in such a densely forested

area such as Sammamish will often require the removal of trees either for the structure itself or for the access routes necessary to construct and use the structure. In addition to the net loss of trees and canopy, there is also the threat of fragmentation.

Forest fragmentation is the disruption of large, contiguous, forested areas into smaller pieces of forest. These pieces are typically separated by roads, agriculture, utility corridors, subdivisions, or other human development. Fragmentation often leads to a decline in habitat quality and the degradation of ecosystem health. Furthermore, this degradation causes an imbalance to microclimates which increases their risk and susceptibility to invasive species damaging urban forest health and sustainability.

Diseases and Pests

Another important aspect to tree maintenance is staying alert to managing emerging diseases and pests that can be costly to control with individual trees. For sustainability of the entire urban forest, these are potentially catastrophic matters to consider. Among the many diseases and pests that affect trees, City staff and residents remain alert to the following:

- Dutch Elm Disease (DED) has devastated American elm populations, which are some of the most important street trees in the twentieth century. Since first reported in the 1930s, it has killed over fifty (50) percent of the native elm population in the United States (Forest Service, Northeastern Area State and Private Forestry, 2005). However, some elm species have shown varying degrees of resistance.
- Laminated Root Rot (LRR) is one of the most damaging root diseases amongst conifers in the pacific northwest. LRR is caused by the fungus *Phellinus weirii*. The disease is widespread in southern British Columbia, Washington, Oregon, northern California, western Montana, and northern Idaho (Forest Service, Pacific Northwest Research Station, 1995). Symptoms include crown yellowing and thinning, red brown stained outer heartwood, and laminate decay. The trees die from failure to take up water and nutrients because of the decay in the main roots. Their death is also accelerated by wind that downs trees.
- Swiss Needle Cast (SNC) is the name of the foliage disease of Douglas-fir caused by the fungal pathogen *Phaeocryptopus gaeumannii*. SNC disease symptoms include chlorotic (yellow) needles and decreased needle retention, resulting in sparse crowns and reduced diameter and height growth (OSU, 2017). Mortality from this disease is considered rare, but tree care and maintenance of this disease can be expensive and necessary in an urban setting.
- Douglas-fir Tussock Moth (DFTM) is a moth found in western North America. Its population periodically erupts in cyclical outbreaks (Wickman et al., 1998). Outbreaks of the Douglas-fir tussock moth appear to develop almost explosively, and then usually subside abruptly after a year or two. The caterpillars feed on the needles of Douglas fir, true fir, and spruce in summer. Forestry management to prevent tree damage from tussock moth outbreaks include four (4) activities: early detection, evaluation, suppression, and prevention. These four activities must be well integrated to insure adequate protection from the pest.
- Other Diseases and Pests. Information on specific diseases and insects that damage trees in our region have been identified by the Washington State Department of Natural Resources. Current online information is at: www.dnr.wa.gov/ForestHealth.

Regulations and Policies

City policies are required to comply with state and federal regulations. As such, this plan has been developed with consideration of such laws. The three most relevant regulations that directly

influence the management of urban forestry and land use in Sammamish are the State Environmental Policy Act (1971), the Growth Management Act (1990) and the Evergreen Communities Act (2008). In addition, the City has developed comprehensive plan policy documents and parks planning documents that provide overarching policy guidance in the development of this plan.

Endangered Species Act (1973)

The Federal Endangered Species Act (ESA) makes it illegal to sell, harm, harass, possess or remove protected animals from the wild. ESA also provides for the designation of critical habitat and prohibits the destruction of that habitat. Sammamish has identified critical areas as identified in the Growth Management Act (see below), which includes consideration of critical habitat identified in the ESA, in city ordinances to further ensure compliance with the ESA.

Migratory Bird Treaty Act (1918)

The Federal Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States except house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkeys. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird, including feathers, parts, nests, or eggs. When tree work and other ground-disturbing activities cannot be avoided during the nesting season, managers, supervisors, and crews are responsible for ensuring that activities do not result in any violation of the MBTA, as well as, the Federal Endangered Species Act which makes it illegal to sell, harm, harass, possess or remove protected animals from the wild.

State Environmental Policy Act (1971)

The State Environmental Policy Act (SEPA) applies to decisions by every state agency, county, city, port, and special districts (such as a school or water district) within Washington State. SEPA's basic policy of maintaining and improving environmental quality is implemented primarily through extensive procedural requirements designed to ensure that governmental agencies give proper consideration of environmental matters in making decisions on actions, whether proposed by private parties or the governmental entities themselves, that may impact the environment. Therefore, the SEPA process identifies and analyzes environmental impacts associated with decisions made by the Sammamish government. These decisions may be related to issuing permits for private projects, constructing public facilities, or adopting regulations, policies, and plans.

The SEPA review process helps agency decision-makers, applicants, and the public understand how the entire proposal will affect the environment. SEPA can be used to modify or deny a proposal to avoid, reduce, or compensate for probable impacts.

Growth Management Act (1990)

All cities and counties in Washington are required to adopt critical areas regulations by the Washington State Growth Management Act (GMA, Chapter 36.70A RCW) and urban forest management can support critical area regulations within this Act. In 1990, the State Legislature adopted the GMA on the basis that uncoordinated and unplanned growth posed a threat to the environment, sustainable economic development and the overall quality of life in Washington. Unique among states, the Act requires that municipalities prepare their own comprehensive plans that provide for growth and development in a manner that is locally and regionally consistent, achievable, and affordable.

The GMA defines critical areas as:

- a. Wetlands;
- b. Areas with a critical recharging effect on aquifers used for potable water;
- c. Fish and wildlife habitat conservation areas;
- d. Frequently flooded areas; and
- e. Geologically hazardous areas.

Sammamish has established environmental quality goals within the Comprehensive Plan that support the legislation objectives and protect critical areas. Cities are required to include the best available scientific research in developing policies and regulations to protect the functions and values of critical areas. Further to that end, jurisdictions must review, evaluate, and, if necessary, revise their critical areas ordinances per an update schedule. Sammamish has an inventory of critical areas and protection of these critical areas overlaps with the protection of the urban forest. The trees in the urban forest increase soil security to protect wetlands, waterways and flooded areas, and the branches and canopy provide ample real estate for wildlife to call home. It is important that the City plan for all the trees in the urban forest as a whole, not just critical areas. This notion is reinforced in Washington Administrative Code (365-190-060(1)), which specifies when classifying forest land resources that “Cities are encouraged to coordinate their forest resource lands designations with their county and any adjacent jurisdictions. Counties and cities should not review forest resource lands designations solely on a parcel-by-parcel basis.”

Evergreen Communities Act (2008)

Within the state of Washington, the legislature passed regulations in 2008 designed to provide leadership and guidance for municipalities in the state related to urban forest management. Nicknamed the Evergreen Communities Act (Chapter 35.105 RCW), the regulations create an evergreen community’s recognition program, and the criteria by which cities can be assessed and recognized as an Evergreen community. Although there is no current recognition being provided by the state because of this Act, the City of Sammamish continues to align with the criteria to be considered an evergreen City.

Guiding Policy Documents (municipal)

Within City policy documents, two (2) overarching documents have been created to provide strategic guidance that is integrated into this plan. The Sammamish Comprehensive Plan (SCP, 2015), and the Sammamish Parks Recreation and Open Space (PROS) Plan (2018) are discussed below.

The Comprehensive Plan (2015)

As the overarching guiding document for the City, the Comprehensive Plan aggregates other City visions and plans into one (1) cohesive source. The City of Sammamish Comprehensive Plan (SCP) guides the community’s desires to balance future development with principles of conservation. The plan guides decisions on eight (8) elements; land use, environment & conservation, housing, transportation, utilities, capital facilities, shoreline, and parks, recreation and open spaces. Each of these elements receives a dedicated chapter of the SCP with goals and priorities that are formed to support the collective vision of the future for Sammamish.

The City has prioritized sustainability and health as overriding core values for the Comprehensive Plan. This core value reflects long-standing community values and a clear vision of Sammamish’s commitment to quality of life issues, including those supported by this Urban Forest Management Plan. The SCP developed specific goals for Health and Sustainability that are contained within Framework for Health and Sustainability:

- HS.1 Create and protect healthy habitat.
- HS.2 Maintain a diverse ecosystem supporting a variety of wildlife.

- HS.3 Maintain Sammamish's forested character.
- HS.4 Conserve energy usage in buildings.
- HS.5 Conserve water and protect water quality.
- HS.6 Protect air quality.
- HS.7 Reduce energy consumption and emissions related to mobility.
- HS.8 Foster healthy neighborhoods and promote a citywide culture of environmental and human health.
- HS.9 Promote sustainable development through the use of environmentally sensitive building techniques and low impact stormwater methods.
- HS.10 Minimize the paved area of rights-of-way to the minimum infrastructure required for mobility and safety.
- HS.12 Promote inclusive citizen involvement in shaping decisions for Sammamish's future.
- HS.13 Support a regional economy that provides opportunities for economic vitality.

These goals and priorities can be achieved with the inclusive management of the urban forest. The goals and priorities (HS. 1 through 8) are all strengthened by an expanded urban forest canopy because of the many benefits provided by trees. The success of goals HS.9 and HS.10 increase the potential space for additional urban tree canopy. Goal HS.12 is being honored within this Plan because community input is a fundamental component to development of the UFMP.

More specifically in the SCP elements, the Environment and Conservation Goal (EC.10) directs the City to "maintain and improve the City's forested character" within the following policy framework:

- Policy EC.10.1 Preserve and enhance of the City's urban forest. Use trees and other vegetation, both native and non-native, as appropriate, in all restoration.
- Policy EC.10.2 Preserve trees on all public properties and facilities to the maximum extent possible.
- Policy EC.10.3 Maintain and enhance a street tree maintenance program. Use trees and other vegetation, both native and non-native, as appropriate, in all restoration.
- Policy EC.10.4 Encourage community residents and property owners to preserve the green and wooded character of existing neighborhoods.
- Policy EC.10.5 Within the city, allow off-site options for replanting and restoration where not feasible on-site in order to meet tree retention requirements and achieve tree canopy coverage and stormwater capture.
- Policy EC.10.6 Develop and enforce effective regulatory penalties and practices for unauthorized removal or damage of trees.
- Policy EC.10.7 Prioritize restoration and enhancement of environmentally critical areas and buffers, with the aim of enhancing ecosystem function.
- Policy EC.10.8 Consider incentivizing retention of trees on existing lots, prioritizing clusters and/or a continuous canopy with trees on adjacent lots when feasible.
- Policy EC.10.9 Promote regulatory tools that take into consideration the case-by-case context-sensitive nature of tree retention and canopy coverage.
- Policy EC.10.10 Create and support a robust and comprehensive Urban Forestry Management Plan starting in 2016.
- Policy EC.10.11 Develop incentives to prioritize the retention of high value trees, including heritage and/or landmark trees.

The City's attention to urban forestry matters in the SCP is very detailed in its mandate for active management of the forest. The SCP vision statement has aspirations of expanding the tree canopy and there are goals of maintaining the City's forested character with specific policies that

influence how to achieve it. With the SCP's strong and explicit direction as a foundation, this UFMP provides the necessary 'roadmap' for success.

The PROS Plan (2016)

The Parks, Recreation and Open Space (PRO) Plan provides high-level guidance on the management and development of Sammamish's parks, recreation and open spaces, and the services provided by City staff. The PRO plan is part of the City's broader Comprehensive Plan and is consistent with the guidelines established by the Growth Management Act (GMA). The PRO plan has been regularly updated (2004, 2012, 2018) to remain relevant to Sammamish as the City evolves and maintains very specific objectives that influence how the urban forest is managed within City parks and properties.

The Parks and Recreation department is responsible for maintaining the 600 acres of developed parks, preserves, natural areas and special facilities. The PRO plan defines a mission for the department that is especially important to urban forestry:

Mission: Sammamish's Parks and Recreation system contributes to the quality of life for the community by creating a legacy of diverse and quality parks, exceptional recreation programs and protected natural resources. (PRO plan, 2018)

The PROS Plan also enumerates a series of goals and objectives that have been identified for the parks system. In particular, the goal for maintenance and stability includes specific direction in support of urban forest management:

[...]

GOAL 4: Maintain Sammamish parks and recreation facilities to ensure longevity of assets, a positive aesthetic and sensory experience, preservation of habitat and natural systems, and safety for park patrons.

[...]

4.2 Maintain an inventory of assets and their condition; update the inventory as assets are added, updated or removed from the system and periodically assess the condition of park and recreation facilities and infrastructure.

[...]

4.8 Establish a plant salvage program, in coordination with local nonprofits, volunteer groups and developers, that will support ecological restoration and public landscaping within the City of Sammamish, and that could include space for salvaged plants to be stored, watered and possibly propagated.

[...]

4.12 Support the implementation of the Urban Forestry Management Plan and the management practices to ensure the long-term health of the urban forest.

[...] (PRO Plan, 2018)

These PRO plan goals provide the strategic alignment necessary to ensure that actions by the parks and recreation department, staff and volunteers, are effectively considering the urban forest and tree's as essential assets to fulfilling the mission of the Parks and Recreation department.

Land Acquisition Strategy & Implementation Program

In 2017, the City adopted a strategy to acquire land within and adjacent to the City limits. This strategy was developed in response to concerns over increasing development activity. It provides policy guidance for the City to pursue land acquisitions with the following objectives:

- Preserving natural resources
- Protecting Habitat
- And Retaining tree canopy

In the strategy, the City developed 10 criteria with which to evaluate land for acquisition. Included in this criterion will be evaluations of the existing tree canopy, the ecological value of the land and its connectedness (or fragmentation) from other natural areas. With new information now available about the urban tree canopy, the City can adapt this strategy to include information gathered within this UFMP.

Municipal Ordinance – The Tree Code

City's commonly develop ordinances to direct management of the urban forest. The National Arbor Day Foundation recognizes their value as a minimum requirement within their Tree City USA certifications. Although tree related regulations may be variable in terms of their location in City code, they are often referenced collectively as a City's tree code. The following sections briefly review the tree code to provide the framework under which the City staff and the community are required operate.

Authorization of Power authorizes the City to manage trees.

- **Chapter 2.10** gives the City Manager the authority to appoint a designee.
- **Chapter 21.10** defines the "Director" as the director of the Sammamish DCD or their designee.
- **Chapter 21A.05** gives the Director (as defined above) the ability to use his/her best judgment on the use and enforcement of regulations as they relate to development and land use.
- **Chapter 21A.100** gives the Director the authority to make decisions on denying or approving permits.

Definitions terms related to infrastructure, development, and the environment.

- **Chapter 21A.15** defines many key terms related to the management of the urban forest including a definition of when a tree is of sufficient size to become subject to tree codes and protections.
 - **Significant trees** are either a coniferous tree with a diameter of eight (8) inches or more DBH; or a deciduous tree with a diameter of twelve (12) inches or more DBH. The code does not distinguish between street trees, park trees, or private trees.
 - **Heritage trees** are trees that grow to greater than 22 inches in diameter.
 - **Landmark trees** are trees that grow greater than 32 inches.

Trees in Shoreline Areas, Critical Areas, and Buffers are protected and are subject to special environmental laws and regulations.

- **Chapter 25.06** requires that all development projects in these special jurisdictions shall include measures to lessen the environment impacts and promote ecological restoration.
- **Chapter 21A.50** provides special exemptions and regulations in critical areas for the removal of vegetation or trees in hazardous areas.

Tree Related Fees and Penalties are established to penalize violations of public tree codes, encourage compliance, and provides penalties as a punitive deterrent:

- **Chapter 18.45.070** sets a maximum fine and sentencing for the violation of Chapter 21.

Private Land Clearing is defined as the clearing and removal of vegetation (including trees) on private property.

- **Chapter 16.15** requires a permit for private land clearing.

Tree Protection During Construction is code language that recognizes how trees can often be damaged during construction and require special protections to ensure their viability.

- **Chapter 18.45** defines measures that must be taken in order to retain and protect trees from construction damage during land development projects.

Tree Removal Permits are issued to allow tree removal on private property and in parks. It limits the number of removals in any given year depending on property size.

- **Chapter 21A.37.240 (1)** limits the number of significant trees that may be removed after a tree removal permit is obtained.
- **Chapter 21A.37.240 (2)** limits the number of significant trees that may be removed on lots

There are four different types of permits:

- **Healthy Tree Removal** permit is for removal of healthy significant trees.
- **Hazard Tree Removal** requires the designation of “hazardous tree” through an assessment conducted by a Tree Risk Assessment Qualified Arborist (ISA-TRAQ) and notification to the City.
- **Unhealthy Tree Removal** requires the designation of “unhealthy tree” through an assessment conducted by an ISA-TRAQ arborist and notification to the City.
- **Imminent Threat Tree Removal** allows property owners the ability to remove significant trees on their property that could cause serious or life-threatening injury or death at any time without a permit. Following removal, a report must be submitted to the city. If the imminent threat is disputed, a retroactive permit is required.

Tree Replacement Standards defines acceptable species and standards for the replacement of trees.

- **Chapter 21A.37** defines the replacement requirements for removed trees and provides different replacement criteria for significant, heritage and landmark trees.

Regional Resources

Regional urban forestry resources are organizations which provide services to aid in the protection, maintenance, and development of the urban forest. These range from active volunteer groups in the City, to nonprofits, academic institutions, state and federal government agencies. Some of the organizations and programs described below have been used by the City. Others may be good choices for the future.

Washington State Urban and Community Forestry Program

Under the Washington State Department of Natural Resources (DNR), the Washington State Urban and Community Forestry (UCF) Program provides technical, educational and financial assistance to Washington’s cities and towns, counties, tribal governments, nonprofit organizations, and educational institutions. The mission of the UCF is:

“To provide leadership to create self-sustaining urban and community forestry programs that preserve, plant and manage forests and trees for public benefits and quality of life.”

A key service provided by the UCF is its collection of financial assistance programs including; Community Forestry Assistance Grants, Tree City USA Tree Planting & Maintenance Grants, Arbor Day Tree Reimbursements, Landscape Scale Restoration Grants, Scholarships, and Internships. All forms of financial assistance, their availability in a given year, and their associated dollar amounts are dependent on continued funding through annual grant allocations from the USDA Forest Service. The UCF communicates events, educational opportunities, and other information through a Tree Link Newsletter.

The Washington Community Forestry Council advises the DNR on policies and programs. The program does this by teaching citizens and decision-makers about the economic, environmental, psychological, and aesthetic benefits of trees. The program also helps local governments, citizen groups, and volunteers' plant and sustain healthy trees throughout Washington. The council was established under RCW 76.15.

FORTERRA Green City Partnerships

The Green City program helps urban communities in the Puget Sound region effectively steward their natural open spaces through best practices. Forterra partners with local municipalities to develop achievable goals, shared visions, long-term plans, and community-based stewardship programs to care for the valuable forests and natural areas in our urban environments. Specific services include:

- Citywide forested park and natural area assessment
- Strategic and restoration planning
- Volunteer program development and guidance
- Education and training for volunteers
- Restoration tracking systems
- Green City outreach and community engagement
- On the ground stewardship projects and event support

The Green City Partnerships share three core goals:

- Improve the quality of life, connections to nature, and enhance forest benefits in cities by restoring our forested parks and natural areas
- Galvanize an informed and active community
- Ensure long-term sustainable funding and community support

These unique public/private partnerships bring together public, private, and nonprofit stakeholders to create a sustainable network of healthy forested parks and natural areas throughout the region.

Futurewise

Futurewise is a non-profit that has worked to prevent sprawl in order to protect the resources of communities in Washington State. Futurewise was founded to help support implementation of Washington State's Growth Management Act, and to focus on preventing the conversion of wildlife habitat, open space, farmland, and working forests to subdivisions and development.

Futurewise provides data analysis and research, community and environmental planning and policy development, community engagement and outreach, grassroots organizing and advocacy, legislative initiatives, and litigation. These services are all provided through strategic collaboration with businesses, governments, community organizations, and nonprofit partners.

Municipal Research and Services Center

The Municipal Research and Services Center (MRSC) is a nonprofit organization that helps local governments across Washington State better serve their citizens by providing legal and policy

guidance on any topic. The MRSC collects state and local information from parks and recreation department's, land use planners, utilities, and citizen organizations to promote and manage urban forestry resources. Example resources include local urban forestry programs in Washington State, legal references and related articles.

The University of Washington Restoration Ecology Network

The UW-Restoration Ecology Network (UW-REN) is a tri-campus program, serving as a regional center to integrate student, faculty and community interests in ecological restoration and conservation. Students in the program are required to complete capstone projects, where students of different academic backgrounds work together to complete a local restoration project. Students learn how to plan, design, install, and monitor a restoration project while working in teams. The Capstone spans three academic quarters beginning in the fall. Communities collaborate with the program to develop RFPs which then provide volunteers for the community and excellent learning experiences for the students.

Sammamish Stormwater Stewards

The Sammamish Stormwater Stewards are leading a group of concerned citizens and community leaders to steward the stormwater system in Sammamish. The organization's goals are to educate citizens about stormwater systems and advocate policy makers to prioritize the implementation and maintenance of stormwater systems. To accomplish these goals, the stewards train and support a volunteer core and promote stormwater programs. The "Adopt-a-Stormwater Pond" project encourages the planting of native species around stormwater facilities, where appropriate and allowable. The stewards also strive towards a Citywide pollinator pathway. This group comprises members of the City of Sammamish that have dedicated themselves to the cause of high-quality municipal stormwater systems and to restore native habitat where possible around stormwater systems.

Sammamish Community Wildlife Habitat Project

The initial goal of the Sammamish Community Wildlife Habitat Project when it was formed in November 2008 was to help Sammamish become a certified Community Wildlife Habitat with the National Wildlife Federation. We earned our certification 3/4/2011 and were the 12th in WA state and the 51st in the country. The organization's ongoing goals are to focus on continuing educating Sammamish residents about sustainable garden practices (such as reducing or eliminating chemical fertilizers and pesticides, conserving water, planting native plants, removing invasive plants and composting), and holding community events and educational programs. The mission is to make the Sammamish community healthier for local residents and wildlife.

Washington Native Plant Society

The Washington Native Plant Society mission is to promote the appreciation and conservation of Washington's native plants and their habitats through study, education, and advocacy. The organization collaborates with Sammamish on the Native Plant Stewardship Program. The Native Plant Stewardship Program educates community volunteers about the region's native plants and plant communities and teaches how to use this knowledge to protect and restore Washington's natural ecosystems.

EarthCorps

EarthCorps is a human capital development program where corps members learn leadership skills by working collaboratively, leading community volunteers, and executing technical restoration projects along shorelines, trails and in forests. Puget Sound Stewards help EarthCorps run restoration events, monitor plant growth, adapt management plans, and educate the

community. EarthCorps collaborates with businesses, nonprofits, and communities to offer volunteers who are passionate about conservation and restoration.

Comparison Matrix / Other Cities

The following neighboring jurisdictions were evaluated within this UFMP to provide additional context to urban forest management in the City. Of these cities, only Bellevue has a specific goal for their urban forest canopy, and Kirkland is the only city with an overarching urban forest management plan.

Municipality	Benchmarks	Policy Documents
City of Bellevue	40% Canopy goal in 2015 Comp Plan Urban Ecosystem Analysis completed in 2008	No stand-alone forest policy document, but they do have a formally described forest management program and a City staff arborist.
City of Issaquah	No Canopy Goal	No stand-alone forest policy document.
City of Kirkland	No Canopy Goal	Adopted an Urban Forest Strategic Management Plan in 2013 with a six-year review cycle.
City of Mercer Island	No Canopy Goal	No stand-alone forest policy document.
City of Redmond	No Canopy Goal	Currently drafting a tree canopy strategic plan (as of 2017)

Summary Conclusions

Forestland in Sammamish is in transition. In conjunction with development and population growth, iconic forest stands are being replaced in the landscape with a broader mix of urban-adapted species. As the landscape becomes more diverse, management strategies for the urban forest will need to adapt as well. Unlike traditional forestlands, an urban forest requires a proactive management approach to ensure that trees are structurally pruned and maintained for clearance, safety, and to fulfill their intended role in the landscape. The urban environment poses particular challenges to tree health, including planting site limitations, compacted soils and reduced organic matter, disruptions to soil biota, pollution, and increased exposure to mechanical injury (e.g. from vehicles, pedestrians, and pets). Regular inspections and routine maintenance are necessary to support tree health and promote greater longevity and sustainable benefits. To date, the City of Sammamish has managed the community urban forest with a reactive approach that assigns resources and staff to address issues as they occur or when notification is received from the public or field staff.

To adapt urban forest operations for a more proactive approach, the City will need to advance its knowledge of the urban forest resource by completing an inventory of the public tree resource and identifying a means and methodology for maintaining current tree data. Ideally, an inventory database will track the location of trees along with species, relative age (DBH), general condition, maintenance needs, and relevant history (e.g., previous failure, inspections). The information can be used to develop annual work plans and projected budgets.

Researchers and industry professionals have developed standards and best management practices (BMPs) for the stewardship of urban forests worldwide. This combined knowledge and experience has resulted in sustainability indicators for evaluating urban forest programming (TABLE X). These indicators provide a benchmark for existing operations in Sammamish and suggest additional actions for increasing resilience and sustainability.

Currently urban forest operations are divided between three departments. Regulations, including city code and development standards support tree protection, however, these policies are not well enforced. Program efficiency can be improved by creating a position for a high-level urban forestry planning professional to lead a multidisciplinary team. This will facilitate interdepartmental cooperation and enforcement of policies and codes.

Existing tree planting and replacement projects are opportunistic rather than the result of strategic planning. Ideally a planting program is driven by canopy cover goals, environmental services, and equity considerations. A focused approach to species diversity and age distribution is critical to resource resilience. There is a widely accepted rule of thumb that no single species should represent greater than 10% of the total population, and no single genus more than 20% (Clark et al, 1997). This strategy provides greater protection and resilience in an urban forest resource by minimizing losses when a catastrophic pest or disease is introduced [e.g., Dutch elm disease (*Ophiostoma ulmi*) and emerald ash borer (*Agrilus planipennis*)]. A diverse species composition also provides protection in the face of extreme storms, drought, climate fluctuations, and the myriad of other stressors that impact the health of an urban forest. In addition, promoting resilience provides stability in the flow of environmental benefits and in the costs associated with maintaining an urban forest. As we gain a better understanding of the effects of a changing climate, the emerging consensus among industry leaders is that we should be increasing diversity in new tree plantings so that over time no species represents more than 5% of an urban forest resource.

Funding for the management of the community tree resource is currently oriented toward reactive tree care. As the City transitions to a more proactive approach additional resources and sustainable funding streams will need to be identified, including exploring collaborations, engaging partners, and identifying grant opportunities.

Indicators of a Sustainable Urban Forest THE MGMT APPROACH	Sammamish Today	Performance Levels			Overall Objective
		Low	Moderate	Good	
Tree Inventory	The city has started to inventory parks and has no inventory of trees in the rights-of-way.	No inventory or out-of-date inventory of publicly-owned trees.	Partial or sample-based inventory of publicly-owned trees, inconsistently updated.	Complete, GIS-based inventory of publicly-owned trees updated on a regular, systematic basis.	Comprehensive, GIS-based, current inventory of all intensively-managed public trees to guide management, with mechanisms in place to keep data current and available for use. Data allows for analysis of age distribution, condition, risk, diversity, and suitability.
Canopy Assessment	First assessment of the city was completed in 2018 based on 2015 imagery.	No tree canopy assessment	Sample-based canopy cover assessment	High-resolution tree canopy assessment using aerial photographs or satellite imagery	Accurate, high-resolution, and recent assessment of existing and potential city-wide tree canopy cover that is regularly updated and available for use across various departments, agencies, and/or disciplines.
Management Plan	The city is developing a strategic urban forest management plan and anticipates implementation in 2018	No urban forest management plan exists.	A plan for the publicly-owned forest resource exists but is limited in scope, acceptance, and implementation.	A comprehensive plan for the publicly owned forest resource exists and is accepted and implemented.	Existence and buy-in of a comprehensive urban forest management plan to achieve citywide goals. Re-evaluation is conducted every 5 to 10 years.
Risk Management Program	Inventories have provided information on risk issues. Imminent threats are addressed, though much of remaining risk abatement work is done reactively	Request-based, reactive system. The condition of publicly-owned trees is unknown.	There is some degree of risk abatement thanks to knowledge of condition of publicly-owned trees, though generally still managed as a request-based reactive system.	There is a complete tree inventory with risk assessment data and a risk abatement program in effect. Hazards are eliminated within a set time period depending on the level of risk.	All publicly-owned trees are managed for maximum public safety by way of maintaining a city-wide inventory, conducting proactive annual inspections, and eliminating hazards within a set timeframe based on risk level. Risk management program is outlined in the management plan.
Maintenance Program of Publicly Owned Trees (trees managed intensively)	Few of Sammamish's trees have been assessed and inventoried, and there is almost no information documented about in the public rights-of-way or city managed facilities	No maintenance plans are in effect.	Only reactive management efforts to facilitate public use (risk abatement).	Maintenance plans are in place for publicly-owned areas focused on managing ecological structure and function and facilitating public use.	The ecological structure and function of all publicly-owned trees are protected and enhanced while accommodating public use where appropriate.
Planting Program	Currently there is no discrete budget item for annual planting work across departments. Planting locations are more opportunistic, less strategic.	Tree establishment is ad hoc.	Tree establishment is consistently funded and occurs on an annual basis.	Tree establishment is directed by needs derived from a tree inventory and other community plans and is sufficient in meeting canopy cover objectives.	Comprehensive and effective tree planting and establishment program is driven by canopy cover goals, equity considerations, and other priorities according to the plan. Tree planting and establishment is outlined in the management plan.
Tree Protection Policy	Regulations are in place via tree ordinances and development code. An arborist is involved in plan reviews and inspections. Code enforcement is limited after permits are issued.	No tree protection policy.	Policies are in place to protect trees, but the policies are not well-enforced.	Protections policies ensure the safety of trees on public and private land. The policies are enforced and supported by significant deterrents and shared ownership of city goals.	Comprehensive and regularly updated tree protection ordinance with enforcement ability is based on community goals. The benefits derived from trees on public and private property is ensured by the enforcement of existing policies.
City Staffing and Equipment	Staff are trained for tree work, but ISA certified arborists are needed for supervision. ISA certified arborists are contracted to fill in gaps.	Insufficient staffing levels insufficiently trained staff, and/or inadequate equipment and vehicle availability.	Certified arborists and professional urban foresters on staff have some professional development, but are lacking adequate staff levels or adequate equipment.	Multi-disciplinary team within the urban forestry unit, including an urban forestry professional, operations manager, and arborist technicians. Vehicles and equipment are sufficient to complete required work.	Adequate staff and access to the equipment and vehicles to implement the management plan. A high-level urban forester or planning professional, strong operations staff, and solid certified arborist technicians.
Funding	Public funding supports primarily reactive tree care.	Funding comes from the public sector only and covers only reactive work.	Funding levels (public and private) generally cover mostly reactive work. Low levels of risk management and planting in place.	Dynamic, active funding from engaged private partners and adequate public funding are used to proactively manage and expand the urban forest.	Appropriate funding in place to fully implement both proactive and reactive needs based on a comprehensive urban forest management plan.

What Do We Want?

Community Input

[This section to be enhanced with second draft community feedback]

Sammamish conducted substantial outreach to public stakeholders, residents, and non-profit agency stakeholders. Connections and relationships that develop among stakeholders are valuable outcomes of the urban forest outreach process. This provided a wide context for the challenges that face Sammamish's urban forest. As community awareness and actions associated with urban forestry move forward, it will be the people of Sammamish that ultimately realize the value of their contributions to their community in the trees that grow around them.

Stakeholder Interviews

In January of 2018, a team from the Davey Resource Group met with several municipal and regional urban forest stakeholders. These stakeholder interviews occurred over three days and included urban planners, utility experts, public works, local business owners, City staff, and City leadership. Their valuable contributions guided the framework of the UFMP.

Community Workshops

The first community meeting was a public education workshop held on January 31, 2018. During this meeting, issues, concerns and values about the urban forest were explored with members and visitors in attendance. Later, another public meeting (June 21, 2018) provided a presentation to the Parks & Recreation Commission and Planning Commission at a joint meeting. The purpose of this presentation was to share information about the UFMP development process, progress that had been made, and next steps.

A third meeting occurred on July 9th, 2018, when with a City Council Study Session presentation. This was another opportunity to solicit leadership input for the UFMP development process. The results of these public meetings helped the City to understand the needs and concerns of the community, its elected leadership.

Educational Pop-Ups

To raise awareness in the community and initiate relationships for long-term stewardship, the City conducted pop-up events. The City set up a kiosk with various educational resources at each pop-up event. The first pop was conducted on April 21 at the Sammamish Lodge Near Beaver Lake. This pop-up was conducted as part of a larger Earth Day celebration. The second and third pop-ups were conducted during the City's Farmers Market. These pop-ups occurred on May 16, 2018 and May 30, 2018, from 3:30pm to 8:00pm.

The pop-up kiosk contained informational flyers, half a dozen educational storyboards, and various trinkets and small items as keepsakes for visitors. A sign-up sheet was available for visitors to record their contact information.

The educational storyboards covered the following topics:

- Land cover and canopy cover
- Benefits of the urban forest
- Pests, diseases, and threats to the urban forest
- Desired outcomes from the UFMP
- Canopy health
- Forest fragmentation

- Satisfaction with public tree care

Online Community Survey

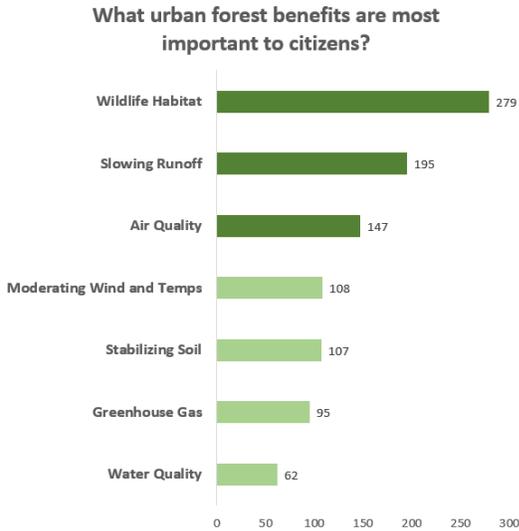
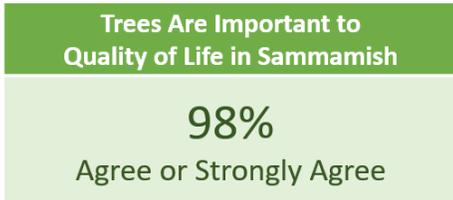
From the initial stakeholder outreach, a survey was developed with the intention of understanding and benchmarking Sammamish community values and views on the urban forest. Survey data was collected online. The survey opened on April 20, 2018 and the survey closed on June 4, 2018 with 331 responses having been gathered (Appendix X).

The results showed that ninety-eight percent (98%) of respondents "agree" or "strongly agree" that public trees are important to the quality of life in Sammamish. When asked to rank the ecological benefits most valued from the urban forest, respondents expressed the greatest appreciation for wildlife habitat, with 84% indicating that it is the most important benefit, followed by slowing runoff from precipitation (59%) and improving air quality (44%). Improving water quality was ranked of least importance at 19% (Figure X).

Online Survey

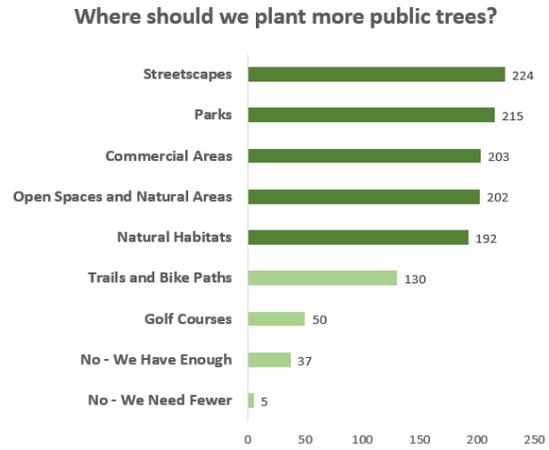
Initial Results

331 responses over 7 weeks



Sammamish Needs More Public Trees

81%
Agree or Strongly Agree



Sixty-seven percent (81%) of respondents "agree" or "strongly agree" that Sammamish needs more public trees. The most popular location for more trees is in streetscapes (69%), followed by parks (66%), commercial areas (62%), then open spaces and natural areas (62%), and trails and bike paths (40%). Five (5) respondents (1.5%) indicated a preference for fewer trees.

What is your satisfaction level with care of public trees?

Satisfied	Neutral	Dissatisfied
58%	29%	13%

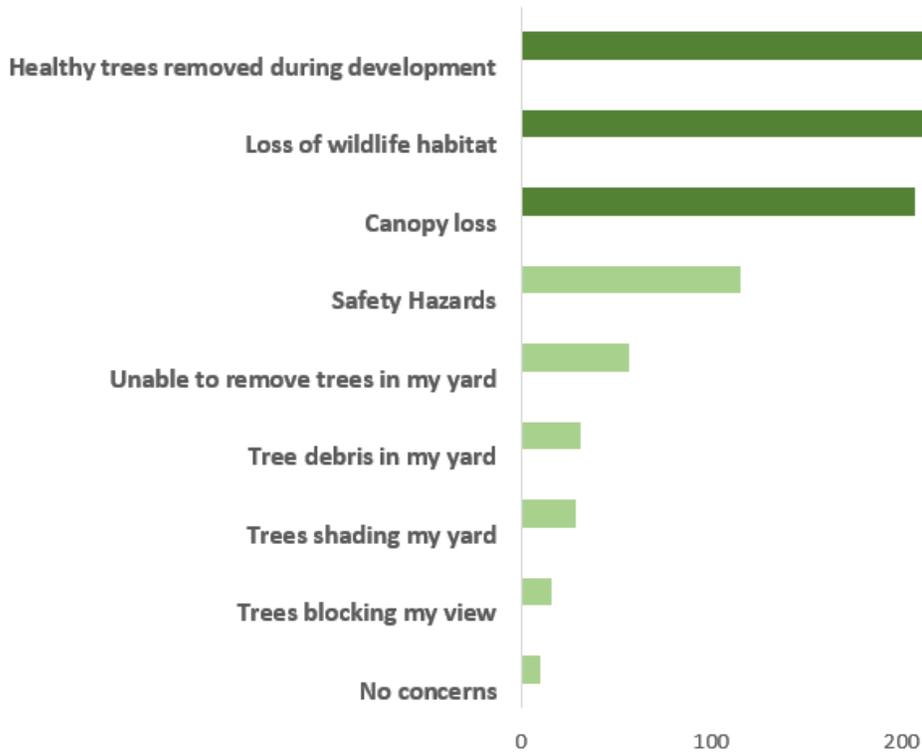
How often do you encounter...

Trees Blocking the Right-of-Way	Trees with Poor Structure	Trees in Poor Health
62% Never	64% Never	45% Never

In general, respondents are content with the current level of maintenance, with 58% saying they are "satisfied." Only 13% of respondents indicated they are "Dissatisfied" with the care of public trees. When asked how often respondents encounter several tree issues, 62% never encounter

trees blocking the right-of-way, 64% never encounter trees with poor structure, and 45% never encounter trees in poor health. (Figure X). Of those respondents who do encounter issues, less than 10% of responses found issues more frequently than a several times a year.

Top Concerns for Trees



When asked to rank their top concerns for trees in Sammamish, respondents expressed that the removal of healthy trees during development is the most important concern (80%), followed by loss of wildlife habitat (74%) and canopy loss (63%). Trees blocking personal views was ranked of least importance at 5% (Figure X). Healthy trees removed during development garnered many passionate comments. Anecdotes from the public workshops and pop-ups affirmed that people are often surprised by land clearing associated with development. They often question the way trees are selected for removal or retention with the impression that too many trees are being removed in developments.

Forty-four percent (44%) of respondents are aware of City tree regulations because of news articles and 38% are aware because of personal experience. 20% of respondents reported that they were not aware of City tree regulations. Of respondents who had experience with these regulations, 15% reported that their experience was easy and reasonable while 9% reported their experience was difficult and too strict. 56% reported that they had no opinion, or the question was

not applicable (Figure X).

What is your awareness of City tree regulations?		
Aware from Personal Experience	Aware from News Articles	Was Not Aware
38%	44%	20%

What is your experience with City tree regulations?		
Easy and Reasonable	Difficult and Too Strict	No Opinion
15%	9%	56%

Tree removal regulations were a polarizing topic among survey respondent comments.

1. "To remove an unhealthy tree (endangering my property) I need to substitute it with another one plus provides an expensive arborist's report. To remove the same tree as healthy (just because I want) I just need to substitute with a new tree. And if a tree falls "by itself" then I don't need to provide anything. What's the point? Also, since a substitution tree is required, one cannot really "thin" one's dense private forest from 30 trees to 29, without applying for a grading permit (in which case it would be easier to remove as much as possible instead of a reasonable 1 that one wanted). Regulations are not flexible."
2. "I have lived in a rented house on an acre of forested land in Sammamish for more than 8 years, and my 15-year-old daughter knows every tree, bush and lichen in this acre. To our horror, many of the neighbors have cleared forest for no other reason than to get a sunnier yard. It is heartbreaking that this is allowed. The removal of forested areas and fencing off what is left will destroy everything this area. We need to learn, as a community, that we share our spaces with other living beings. A bear has been visiting our plum tree every year and has broken off several big branches, and we could not be happier about seeing it each year! We are one of the few remaining areas of forest left in the immediate vicinity that is not fenced off or just gone. I STRONGLY support enforced regulations to stop the irreversible deforestation of privately owned areas of Sammamish."
3. "Developers get away with a slap on the hand if they remove trees to be protected "in error". This needs to be addressed. Make it hurt their bottom line by placing huge fines based on caliper inch of tree removed and/or actual value of the trees as developed by ISA, as some other cities have adopted."
4. "Due to my lot size, I cannot replant the mitigation requirement. I have 7 large size conifers on my property of 0.25 acre."

5. "I was required to replant from a select list of trees based on number of diseased trees I took down. I was able to afford to do this, but I am not sure this is a viable alternative for many."
6. "As a private owner with lots of trees, we are told we can't remove any of them, including unsightly maple suckers from stumps from 10-20 years ago, without an arborist report. Meanwhile acres of mature conifers are cleared for development with no consideration for wildlife habitat."
7. "We had a tree impacting our foundation. The requirement to pay for an arborist for a clearly visible impact and hazard is ridiculous. The process was weeks long and very expensive for the average homeowner trying to remove/ mitigate a dangerous tree."
8. "Based on our experience, City tree regulations are beyond lacking and insufficient. The staff is trained extremely poorly on the issuing of tree removal permit process. It results in healthy PROTECTED trees being removed without any consideration. Also, no transparency on how the City enforces the preservation of 35% of significant trees in new developments. There is also no accountability for builders or new house-owners in these developments to ensure survival of three trees post-construction. Have multiple examples on this, unfortunately. "
9. "In my case, the private property is HOA open space. The process to get trees managed is difficult and the information needed is unavailable and the City is short-staffed. I have not been able to get the HOA plat development plans or documents used to designate the open space as critical wetland. City staff could not help and sent me to outside agencies which are not responding. The City requested a forest management plan which is expensive, and King County would not cover the cost of the plan since the plat is in the City of Sammamish."

Respondents were asked to indicate their level of support for possible urban forestry policies and initiatives at the City. When asked "Would you support the creation of a business licensing process to categorize and monitor businesses practicing arboriculture in the City?" 83% answered "Yes" or "Maybe (with conditions)". 97% of respondents answered "Yes" or "Maybe (with conditions)" to the implementation of punitive policies for developers who violate tree regulations. Finally, 68% of respondents supported the creation of a special property tax to directly fund the urban forestry program (Figure X). As a related topic, 88% of respondents supported the creation of a City staff arborist position to serve the community as a point of contact for tree issues.

Do you support...		
Business License for Arborist?	Punitive Policies for Violations?	Special Property Tax for Urban Forestry?
83%	97%	68%
Yes or Maybe (With Conditions)	Yes or Maybe (With Conditions)	Yes or Maybe (With Conditions)

Summary Considerations for UFMP (Conclusions)

Already considered an asset by residents, Sammamish has an opportunity to further improve the urban forest through increased public outreach, streamlined permitting, and the addition of a City arborist position. Public engagement on urban forestry issues has demonstrated that the public is generally satisfied with the City's activities on public property. Community members had a wide range of views regarding existing tree regulations and associated processes.

There is general agreement from survey respondents that too many healthy trees are removed from properties during development, and the issue strikes residents as a primary tree issue in Sammamish. This is especially important because the community views trees and the urban forest are fundamental to Sammamish's identity as a community.

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How Do We Get There?

Over the next 20 years, the City of Sammamish will be able to enhance management of the urban forest through implementation of actions recommended in this plan. The decision to develop a plan with a 2040-time horizon was primarily based on the precedent established by the City with other long-range planning documents. Additionally, growing and improving Sammamish' urban forest are slow processes. Tree physiology for most trees in Western Washington can take up to seven (7) years to establish after planting, and another ten (10) years before they reach functional maturity. Trees provide the majority of their ecosystem services when they reach functional maturity. For this additional reason, it is essential that urban forest planning consider at least twenty (20) years within the Plan framework as a reasonable expectation for achieving the desired state of the urban forest.

The long-range strategic goals provided in this plan will address three (3) guiding principles of a sustainable urban forestry program:

- **Urban Forest Sustainability** – That the urban forest is an asset which provides benefits that the community wishes to protect and maintain. Associated goals are intended to improve the urban forest resource over the next twenty (20) years by developing detailed expectations for the urban forest. To accomplish these goals, the most common tactic will be to increase the amount of information the City maintains about its urban forest resource. This includes activities like routine tree canopy assessments and maintaining a public tree inventory, both of which are fundamental to management. Since these activities require substantial expenses to an urban forestry program, maintaining this information requires significant planning and consideration.
- **Efficiency in Municipal Operations** – That the city organizes in ways that are efficient. Associated goals are intended to drive improvements in City policy and practices by improving efficiency and alignment of efforts within City departments. The common tactics for accomplishing these goals center around developing policies that promote routine tree inspection and formalized tree management strategies for City-owned trees. These goals encourage the City to improve its awareness and mitigation of tree hazards and eliminate barriers to effective urban forest management.
- **Community Collaboration and Engagement** – That the community can be engaged and provide support for urban forest management. Associated goals build stronger community engagement and public participation in urban forest stewardship. Common actions include coordinating with the public and encouraging the participation of citizens and businesses to align with the City's vision for the urban forest.

The research into the City's current and historical efforts in urban forestry has revealed numerous opportunities to enhance the understanding of the urban forest resource as well as improve efficiency in tree maintenance operations. Through plan implementation, criteria and indicators will become increasingly available for establishing performance measures. These measures will eventually guide managers in ways that improve the health of the urban forest resource and the effectiveness of their management approach. The criteria and indicators proposed by Kenney, et al (2011) were used as a reference standard to assess the current urban forestry practices in the City and provided the framework for the following recommended goals. An overview of this reference standard as it applies to Sammamish is in Appendix A.

Urban Forest Sustainability

Urban Forest Goal #UA1 - Maintain overall canopy cover

Actions Include:

- A. Develop and adopt an overall canopy goal.
 - a. Identify specific goals by land-use and zoning
 - b. Update canopy goals inside the Comprehensive Plan.
- B. Enhance Canopy in Key Areas
 - a. Plant trees in sub-basins to improve stormwater management, protect existing natural resources, and enhance overall canopy cover,
 - b. Plant trees in high-profile areas to maintain Sammamish's forested character.
 - i. Gateways into the city
- C. Assess urban tree canopy every ten (10) years to determine changes and evaluate progress.

Urban Forest Goal #UA2 – Increase and promote resilience in the urban forest.

Actions Include:

- A. Develop a city-wide planting plan
 - a. Include right-tree right-place in planting policies.
 - b. Select species to improve diversity.
 - i. No single species represents >10% of the resource.
 - ii. No single genus represents >20% of the resource.
 - iii. No single family represents >30% of the resource.
 - c. Reduce reliance on overused species
 - d. Reduce forest fragmentation
- B. Develop an approved tree list as a separate policy document that can be updated routinely and independently from other city policy documents.
 - a. Identify species and appropriate use for rights-of-way, parks, and private property
 - b. Identify and maintain a broad palette of regionally compatible species
 - i. Include native and adapted species
 - c. Identify pest and disease resistant varieties where available.
- C. Develop an Integrated Pest Management Program to assess and mitigate urban forest health issues.
 - a. Laminated Root Rot
 - b. Invasive Species

Urban Forest Goal #UA3 - Update design, construction and development standards that apply to trees and planting sites.

Actions Include:

- A. Require compliance with ANSI A300 as the standard for care in all tree work.
- B. Develop design standards that include optimal design standards for large-stature trees.
 - a. Suspended sidewalks.
 - b. Pervious concrete.
 - c. Structured soils.
 - d. Green roofs.
- C. Develop requirements that landscape designs and planting plans consider existing infrastructure above and below grade.
- D. Establish tree inspections or audit requirements in development projects to ensure trees planted or protected remain healthy.

Urban Forest Goal #UA4 - Enhance tree bank (fund) for applications beyond parks

Actions Include:

- A. Revise the tree in-lieu fund to create provisions for trees to be planted on private properties.
 - a. Develop an audit inspection program related to tree in-lieu fee collection and distribution.
 - b. Develop a non-profit partnership to improve administration of funds.
 - c. Develop partnerships with HOA's to fund tree planting on private properties.
- B. Ensure funds are dedicated specifically for tree care operations, including planting and replacement.
- C. Identify opportunities for additional sources of revenue.
 - a. Appraisal fees for trees damaged in vehicular accidents.
 - b. Fines for malicious damage to public trees.
 - c. Charitable contributions and 'in-memories'.

Urban Forest Goal #UA5 - Assess the ecosystem services provided by public trees and natural areas

Actions Include:

- A. Complete a resource analysis (using i-Tree or another model).
 - 1. Use i-Tree to evaluate the current composition, benefits, and benefit versus investment ratio of the community urban forest.
- B. Periodically review changes and improvements to benefits, composition, and benefit versus investment ratio.
 - 1. Consider results and alignment of UFMP goals, objectives, and actions.
- C. Report changes and progress in the State of the Urban Forest Report.

Urban Forest Goal #UA6 - Collect and maintain a complete inventory database for the community tree resource

- A. Develop a standard tree inspection protocol.
 - a. Inspect existing trees on a 7 to 10-year inspection cycle.
 - i. Record key information for each site according to International Society of Arboriculture Best Management Practices.
 - 1. Genus, species, diameter (DBH), condition, and location
 - ii. Document tree condition and risk factors
 - 1. Identify signs or symptoms of disease, pests, and abiotic disorders, including environmental stress (e.g., water management, soil conditions, and nutrient availability).
 - 2. Identify obvious signs of decline and/or failing structure.
 - 3. Identify and assess risk and potential risk.
 - 4. Identify risk factors and mitigation strategies for mature, over-mature, and declining trees
 - iii. Prioritize plant health care needs/requirements.
 - b. Inspect newly planted trees to ensure successful establishment.
 - c. Monitor and sample natural areas
 - i. Invasive species
 - ii. Pests/disease
 - iii. Health of the understory
- B. Integrate inventory data into accessible data management system.
 - a. Evaluate applications for smartphones/tablets to allow for updates to occur simultaneously as maintenance and/or inspections are completed.
 - i. Coordinate with GIS and Information Technology staff to evaluate urban forest tree inventory software.
- C. Develop a policy and assign responsibility for keeping inventory data current.
 - a. Establish policies and processes that allow for access to inventory data by supervisory and field staff
 - i. View and update data in the field
 - b. Integrate inventory data updates into tree work contracts.

Urban Forest Goal #UA7 – Care for the community urban forest using the best available science.

- A. Set policies that any tree work complies with ANSI A300 Tree Care Standards.
- B. Set policies that and tree workers comply with ANSI Z133 Safety Standards.
- C. Set policies urban forestry work consider best management practices as advised by the International Society of Arboriculture.

Municipal Operations

Municipal Goal #M1 - Maintain Urban Forest Management Plan alignment with other City plans and policies.

Actions:

- A. Review and revise the UFMP every five to ten (5-10) years.
 - a. Adjust goals and actions as necessary.
 - b. Periodically review the UFMP for alignment with community values and expectations for the urban forest.
 - c. Assess community satisfaction measured through surveys or as evidenced by public support for realizing the Plan's goals and actions.
 - i. Gauge the level of public engagement and support for urban forest programs, workshops, and issues.
- B. Collaborate with city staff experts to establish a risk management policy for trees.
 - a. Identify policies and action thresholds.
- C. Include urban forestry concerns in emergency response plans.
 - a. Staging areas
 - b. Identify response authority and staff responsibilities
 - c. Debris management
 - d. Tree risk assessments of Emergency routes
 - e. Emergency contracts and funding strategies

Municipal Goal #M2 – Provide staff that are appropriately trained to work safely and effectively.

Actions Include:

- A. Formalize a policy for ongoing training to staff working in urban forestry.
 - a. Establish training protocols for city staff performing tree work.
 - b. City tree crews should be fully trained and qualified for any bucket work, climbing, and rescue.
- B. Establish a policy that all tree work be supervised by an ISA certified arborist.
- C. Require that all tree work procedures comply with ANSI Z133 safety standards.

Municipal Goal #M3 - Establish a Formal Interdepartmental Working Team

Actions Include:

- A. Designate an Urban Forester within City staff to provide leadership to the working team.

Municipal Goal #M4 - Develop annual work plans that foster routine operations and predictable funding.

Actions Include:

- A. Operational objectives
 - a. Pruning schedules for maintenance contract(s).
 - b. Tree planting and replacement schedule.
 - c. Prioritized risk mitigation actions and tree removals.
 - d. Prioritizes areas for tree inspections & risk assessment.
- B. Develop an annual urban forestry operations budget.
 - a. Identify suitable taxes or levies to support urban forestry
 - b. Identify and apply for grant funding opportunities.

Municipal Goal #M5 Enhance processes for tree planting and plant salvage

- A. Develop a staging site or green house location for the city to receive and care for trees and other plant materials.
- B. Acquire a watering truck to ensure successful tree establishment.
- C. Manage warranties from nurseries
- D. Provide training for tree planting volunteers/staff to ensure proper tree planting.

Municipal Goal #M6 – Review tree ordinances every 5-10 years.

Actions Include:

- A. Evaluate the value and benefits of removal and replacement ratios to canopy objectives
 - a. Provide exceptions for tree removal restrictions on residential properties when planting and replacement strategies would align with city canopy goals.
 - b. Offer higher credit when trees are preserved in clumps and/or connect to neighboring canopy
- B. Preserve existing ordinances exemptions for utilities to control costs.
- C. Develop incentives for development projects to retain native trees.
- D. Consider revisions to tree removal and replacement requirements on development properties to incentivize retention of healthy trees and removal of unhealthy trees.
- E. Evaluate exceptions for tree removal permits
 - a. City Parks
 - b. Unsuitable locations.
- F. Provide options for private property tree management plans to streamline permitting on properties where canopy is consistent with city goals.
 - a. Privately-owned properties

- b. Golf courses
- G. Develop flexibility for the requirement that replacement coniferous trees shall be at least eight feet in height.
 - a. Allow a smaller nursery stock trees in appropriate sites
 - b. Measure trees by nursery caliper instead of height

Community Collaboration and Engagement

Community Goal #C1 - Maintain an engaging, user-friendly Urban Forestry web page

Actions Include:

- A. Create a main dashboard for tree related questions and facts
- B. Maintain and enhance the urban forest story map.
- C. Add landing pages to support the following interests:
 - a. Volunteering
 - b. Tree Removal
 - c. Permits
 - d. Benchmarks
 - e. City Staff Contacts
 - f. Tree Care best practices
 - g. Tree diseases of concern for the City
 - h. Helpful links (ISA Trees Are Good, etc.)
 - i. Food Forests
 - j. Free trees

Community Goal #C2 - Develop outreach materials to engage and educate on key topics

Actions Include:

- A. Develop an Annual State of the Urban Forest Report
- B. Determine what methods of outreach are most used and appreciated by the community
 - a. Web-based
 - b. Apps
 - c. Hard (paper) materials
 - d. Self-guided, hands-on, and/or group workshops
- C. Develop outreach materials (pamphlets, articles, etc.) that communicate specific topics about trees, the urban forest, and environmental benefits:
 - a. Communicate basics of tree care, including planting, pruning, and irrigation.

- b. Communicate benefits of trees and tree canopy, including environmental, social, and economic.
 - c. Communicate information about the community urban forest, including composition, health, and species diversity.
 - d. Present recommendations for tree species for private property.
- D. Partner with other city departments, nonprofits, and other groups to incorporate shared information and outreach goals when possible. Possible examples include:
- a. Right Tree Right Place
 - b. Safety considerations related to trees near energized lines and underground utilities.
 - c. Interpretive trails.
 - d. Wildlife habitat in urban environments
 - e. Waterfront properties
 - f. Self-guided tree tours.

Community Goal #C4 - Pursue and maintain Tree City USA status

Actions Include:

- A. Create citizens' Tree Board
- B. Ensure annual urban forestry expenditures are above \$2 per capita.

Community Goal #C5 - Collaborate and nurture partnerships with other organizations

Actions Include:

- A. Collaborate and partner with city departments, nonprofits and neighborhood groups for tree replacement and improvements to streetscapes.
 - a. Forterra
 - b. STEM internships for students
 - c. Develop outreach materials that communicate information about trees and the community urban forest.

Community Goal #C6 - Establish Arborist Business License

Actions Include:

- A. Determine the number of companies doing business in landscaping or arboriculture and have the necessary insurance.
- B. Ensure that all tree work within the city is performed in a safe, professional manner and according to ANSI A300 standards for tree care.
- C. Host learning forums for businesses performing tree work.
- D. Host learning forums for general contractors about urban forestry and tree protection.
- E. Create provisions for revoking licenses to business in cases where arborists are disregarding city code or best practices in arboriculture

Community Goal #C7 - Develop a wood re-use/recycle program

- A. Collaborate with end-users (artists, craftsmen) to identify needs and opportunities
- B. Develop city website to foster a social network of wood waste utilization opportunities in the city.
- C. Improve communication of plant salvage opportunities in development projects.
- D. Designate areas as free wood chip sites.
- E. Utilize wood chip waste to mulch landscape beds in parks, open space, and city facilities.
- F. Incorporate wood waste into playgrounds and parks.

DRAFT

How Are We Doing?

Monitoring and Measuring Results

The UFMP includes goals and actions for measuring the success of planning strategies. It is intended that the Plan serves as a living document. As new information becomes available, this section of the UFMP will be reviewed and amended using routine plan updates, annual reports, and community satisfaction surveys.

5-10 Year Plan Update (Planning through 2040)

The UFMP is an active tool that will guide management and planning decisions over the next 20 years. The goals and actions will be reviewed every five to ten (5 -10) years for progress and integration into an internal work plan. The UFMP presents a long-range vision and target dates are intended to be flexible in response to emerging opportunities, available resources, and changes in community expectations. Each year, specific areas of focus should be identified to inform budget and time requirements for urban forest managers.

Annual State of the Urban Forest Report

This report, delivered annually, should include numbers of trees planted and removed and any changes to the overall community urban forest (e.g., structure, benefits, and value). It will serve as a performance report to stakeholders and an opportunity for engagement. The report also highlights the successful attainment of UFMP actions as well as informs stakeholders about any issues or stumbling blocks. This information can be integrated into urban forest managers' Annual Reports and will be used to pursue additional project support and funding from state agencies and Tree City USA applications.

Community Satisfaction

The results of the UFMP will be measurable in improvements to efficiency and reductions in costs for maintenance activities. Attainment of the goals and actions will support better tree health, greater longevity, and a reduction of tree failures. Furthermore, one of the greatest measurements of success for the UFMP will be its ability to meet community expectations for the care and preservation of the urban forest resource.

Community satisfaction can be measured through surveys as well as by monitoring public support for realizing the goals and actions of the Plan. Satisfaction can also be gauged by the community's level of engagement and support for urban forest programs. An annual survey of urban forest stakeholders will help managers ensure activities continue to be aligned with the community's vision for the urban forest.

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APPENDIX B

Sammamish Community Survey Responses

[ADDITIONAL APPENDICES TO BE PROVIDED WITH SUBSEQUENT DRAFTS]

Urban Forest Management Plan First Draft Discussion Framework
Sammamish City Council Study Session – October 9, 2018

<p>Topic 1: Does the draft Plan accurately describe the current status of Sammamish’s urban forest resource and urban forestry operations?</p>
<p><u>Focus Sections:</u></p> <ul style="list-style-type: none"> • What Do We Have? (pages 8-9) • Community History (page 17) • History of Urban Forestry in Sammamish (page 17) • The Urban Forest Resource (pages 18-31) • The Community Urban Forest Resource (pages 32-34) • Urban Forest Management (pages 35-41) • Indicators of a Sustainable Urban Forest (page 53)
<p>Topic 2: Does the draft Plan adequately address the threats and opportunities facing Sammamish’s urban forest resource?</p>
<p><u>Focus Sections:</u></p> <ul style="list-style-type: none"> • Major Changes and Threats to the Urban Forest (pages 41-42) • Regulations and Policies (pages 42-48) • Summary Conclusions (pages 51-52)
<p>Topic 3: Does the draft Plan accurately represent the community’s vision for the urban forest?</p>
<p><u>Focus Section:</u></p> <ul style="list-style-type: none"> • Community Input (pages 54-60)
<p>Topic 4: Do the proposed goals address the threats and opportunities facing Sammamish’s urban forest resource in a way that is reflective of the community’s vision for it?</p>
<p><u>Focus Sections:</u></p> <ul style="list-style-type: none"> • How Do We Get There? (page 61) • Urban Forest Sustainability Goals (pages 62-64) • Municipal Operations Goals (pages 65-67) • Community Collaboration and Engagement Goals (pages 67-69) • How Are We Doing? (page 70)

Urban Forest Management Plan First Draft – Summary of Parks & Rec, Planning Commission Feedback
Sammamish City Council Study Session – October 9, 2018

Topic 1: Does the draft Plan accurately describe the current status of Sammamish’s urban forest resource and urban forestry operations?	
Page	Comment
General	Town Center tree canopy probably won’t remain, and we don’t want to perpetuate unrealistic expectations with potential canopy cover figures.
37-38	Is the Staffing Training and Equipment detail and section needed in the UFMP document? Can this be summarized, and the details moved to an Appendix?
12	Add a Western Red Cedar to this stormwater benefits table.
14	Can you explain how energy savings are calculated and how this benefits the overall population of Sammamish?
24	I want the plan to be clear regarding which parks are included in which calculations.
34	I would like to see more emphasis on the ideas in this “summary considerations” page in the rest of the document.
36	Recent studies have shown that with global warming, we are seeing forest edges become stressed and die. The fragmentation map shows a huge area for patch canopy which impacts many home owners throughout the city. I’m wondering if we add climate change as a consideration, would that change the weight numbers for canopy fragmentation?
39	Tree Acquisition and Quality Control: “For City staff, replacement trees are often planted with the help of machinery due to the size requirements defined in municipal code.” Is this in reference to a specific case?
48	Would like to see a “dead tree” permit as an outcome.
Topic 2: Does the draft Plan adequately address the threats and opportunities facing Sammamish’s urban forest resource?	
Page	Comment
General	Please note the heavy metal uptake with regard to stormwater.
General	There is not a lot in here regarding development challenges. Can we reference tree canopy retention in TDRs? It’s important to note the necessary balance between property development and tree protection.
29	I would like to see climate change addressed earlier in the plan than this.
30	Is Priority Planting a strategy/solution?
31	The priority planting locations in the map are a bit unrealistic (for example: front yards).
31	Can we put some zoomed-in snippets of the priority planting map on the following pages to give a clearer sense of what this map contains?
41	Why is information about Tree City USA under Urban Forest Management Funding?
43-47	Can the details of the Endangered Species Act, Migratory Bird Treaty Act, State Environmental Policy Act, Growth Management Act, Evergreen Communities Act, Comprehensive Plan, PROS Plan, Municipal Ordinances, and the Tree Code be moved to the Appendix with just a high-level summary in the body?
49	What regional authorities has Sammamish worked with?
Topic 3: Does the draft Plan accurately represent the community’s vision for the urban forest?	
Page	Comment
General	I support having an arborist on staff to support homeowners and staff.

Urban Forest Management Plan First Draft – Summary of Parks & Rec, Planning Commission Feedback
Sammamish City Council Study Session – October 9, 2018

Topic 4: Do the proposed goals address the threats and opportunities facing Sammamish’s urban forest resource in a way that is reflective of the community’s vision for it?	
Page	Comment
General	We don't want to be removing trees solely for the sake of plant diversity; native trees should be given priority when planting.
General	I would like there to be policy supporting maintenance and replacement programs for specific parks
53	Can an introduction be added to the table of Indicators of a Sustainable Urban Forest?
62	On Goal UA 1 – can we promote contiguous canopy 100 ft from arterials? Or on slopes greater than 15%?
62	On Goal UA 2 – can we develop guidelines for homeowners and keep up with changes in the tree list?
62,64	Can we break down "invasive species" management into more specific areas? I don't want to exclude other threats at the expense of focusing on laminated root rot.
66	It would be more accurate to call “wood salvage” “plant salvage” instead.
70	Missing Community Goal #C3.
General Feedback	
Comment	
	Can we be consistent, or define the difference between, using "expand" vs "maintain" vs "enhance" the canopy?
	Good findings regarding tree regulations; it’s important to educate the public on these regulations.
	I would like for staff and the City to have better support to avoid answering queries from homeowners with “we can’t help you,” or “hire an arborist.”
	We definitely need an arborist employed at staff level to take pressure off of planners and home owners alike.

**Urban Forest Management Plan
Question and Answer Matrix**

June 21, 2018 - Joint Planning Commission and Parks and Recreation Commission Meeting	
Question	Project Team Response
1. Can you further explain the “potential urban tree canopy” (UTC) estimate of 60%?	Potential UTC is a combination of the current UTC, plus the grass and bare soil.
2. What is “understory?”	Understory is a classification given to forest and decorative shrubs less than 15 feet tall. This is also known as “emergent vegetation.”
3. Is lawn counted as “forested condition?”	Lawn is not considered “forested condition.” It is captured as grass unless there is tree canopy above it.
4. What year was the imagery data taken? Why was more current imagery not used?	<p>Short Answer:</p> <p>The aerial imagery used for the canopy cover assessment is from 2015. This imagery was the most current available to the City that had all of the data attributes necessary to complete a canopy cover study, including an infrared band and LiDAR (Light Detection and Ranging).</p> <p>Long Answer:</p> <p><i>Orthoimagery:</i> Two sources of orthoimagery from 2015 were used in this analysis: aerial imagery from the 2015 Regional Aerials (City Consortium) Project and imagery from the National Agriculture Imagery Program (NAIP). Orthoimagery or orthophotos are aerial photographs that have been ‘orthorectified’. ‘Regular’ orthophotos use a digital elevation model to correct differences in terrain relief. Objects projecting from the ground are still displaced. ‘True’ orthorectification, which uses a digital surface model, is particularly critical for analyses of urban areas, as residual obliquity of buildings and tall trees will otherwise obscure ground objects. With this method, each pixel and object in an orthoimage will appear as though the observer is directly above it.</p>

	<p><u>2015 Regional Aerials (City Consortium) Project:</u> This orthoimagery is the primary dataset for this land cover analysis and is referred to as 'orthoimagery' or '2015 Regional Aerials' here. These images are orthorectified using a digital elevation model only. In 2015, an 88-member consortium of cities and counties commissioned aerial four band imagery at 0.25' to 1' resolution. Data for the City of Sammamish is available at 0.25' (3") resolution. Due to the license agreement with the data provider, this dataset is the only one not publicly available. It must be obtained either from the City of Sammamish or King County. The data is available in 3000 x 3000-foot grid tiles. The UW team resampled this dataset to 1' resolution to improve processing times.</p> <p><u>NAIP Imagery:</u> NAIP imagery is acquired during the agricultural growing season ("leaf-on"). In King County, four bands of imagery are available at a 1m resolution: red, green, blue, and near-infrared. Horizontal accuracy is within 6m. The most recent data for Washington is from summer 2015 (used in this analysis) and the next update will occur in 2018. The data can be downloaded from The National Map. The UW team paired this leaf-on data with the 2015 Regional Aerials to enhance detection of deciduous trees (Figure 6). Leaf-off data like is particularly useful when a clear view of the ground is important, including development appraisal and assessing the condition of streets and sidewalks. Leaf-on data is critical for accurately estimating deciduous leaf area and canopy cover.</p> <p><u>LiDAR Data:</u> Light Detection and Ranging (LiDAR) data helps with vegetation discrimination, particularly between tree canopy and ground-level vegetation, and correcting obliquity found in the 2015 Regional Aerials. The UW team used 2016 LiDAR data available via the Washington State Department of Natural Resources Washington LiDAR Portal. The data was collected by Quantum Spatial (QSI) at the behest of and with the assistance of the Puget Sound LiDAR Consortium (PSLC) and the Kitsap County Department of Emergency Management. The City of Sammamish is covered by the King County Delivery, flown in March of 2016. There are two datasets derived from the LiDAR data. Digital terrain models (DTM) consist solely of bare earth surface, or ground points. Digital surface models (DSM) include</p>
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	information about all surfaces, including impervious or manmade surfaces and vegetation. Both are at a 3 foot pixel resolution.
5. There's 2017 imagery on iMap, why didn't we use that?	This imagery does not contain the underlying data that is required for a canopy cover assessment.
6. Is there a plan to take an annual measure?	The frequency with which the canopy cover assessment is updated will be dependent on the policy guidance included in the adopted Urban Forest Management Plan document. Generally speaking, most cities update their canopy cover assessments every 10 years due to the time and cost associated with the work.
7. The imagery is outdated. How much do we know about development and its impact on the forest since 2015?	We cannot estimate tree canopy lost to development between Spring 2015 and today (2018) without additional data or analysis.
8. How long does it take grass to become canopy?	When a tree is planted, it is typically 15 years before the tree becomes full statured canopy. This is highly variable based on growth rates.
9. What is bare soil?	Bare Ground: dirt, mulch, and other bare pervious surface.
10. What is perforated canopy?	Tree canopy that exists within and relatively far from the forest/non-forest boundary (i.e., forested areas surrounded by more forested areas) is core canopy. Patches of small clearings can be described as perforated canopy. In the analysis methods provided by the UW, these two were combined. Perforated canopy refers to canopy within and relatively far from the forest/non-forest boundary & between core forests and relatively small clearings within the forest.
11. What trees do best in the City and is this being studied?	This question is best resolved by analyzing an urban forest inventory to assigning for each individual species relative performance index. This is not being studied within this project.
12. Why can't coniferous trees be used as street trees?	Conifer trees can be street trees, but they are typically less desirable because of their growth habit. Their conical shape has a larger crown radius low to the ground that can crowd both sidewalks and streets.
13. Were City parks outside the City studied? Can these parks be included in the plan?	City parks outside the city limits were not analyzed in the canopy assessment from the UW, but will be part of the plan discussion.

14. It's important to note the human health benefit of trees.	The human health benefit of trees is very new research. We'll introduce these as a value of trees, but there won't be any cost-benefit discussions because the models don't exist yet.
15. Will tree species be recommended to address climate change?	The implications of climate change will be discussed in the plan to aid in species selection, but the plan will not be focused on tree species recommendations for future planting. Those would be better introduced following further study of the quality of the existing canopy.



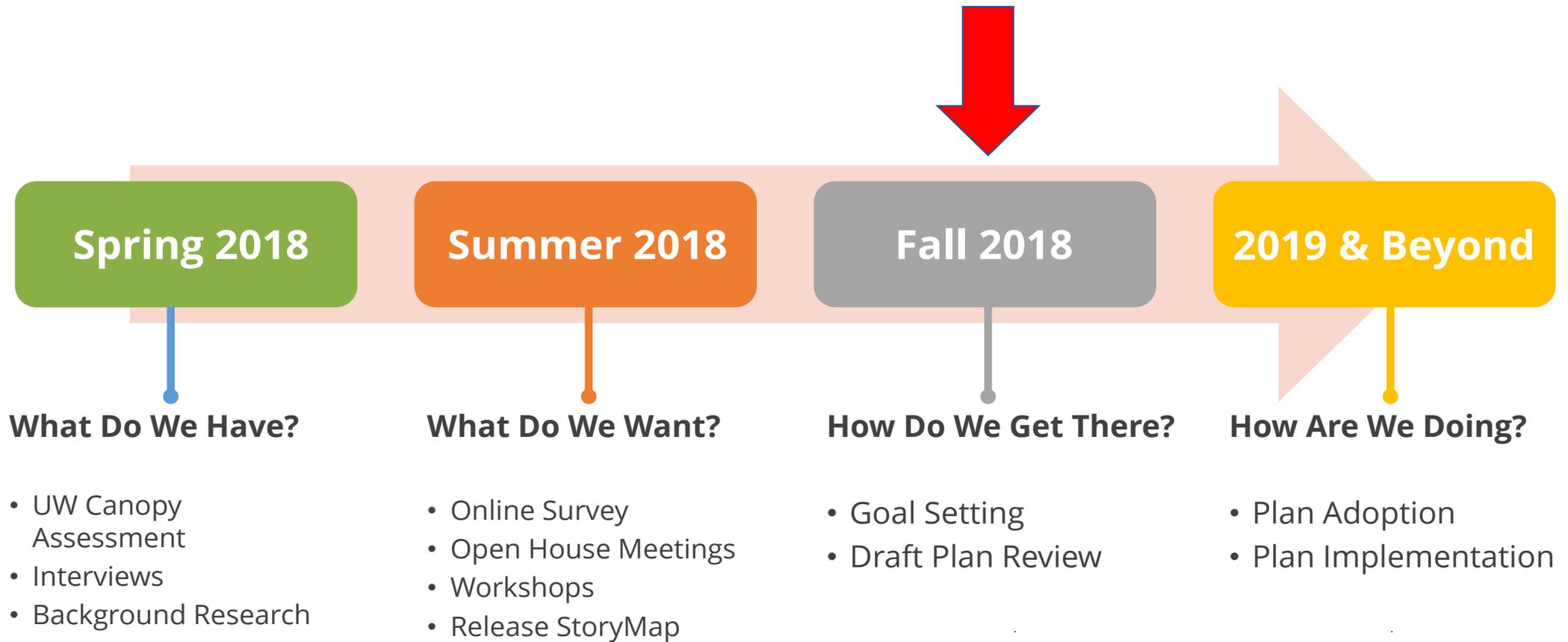
Urban Forest Management Plan

First Draft Review

City Council - October 9, 2018

Presented by Davey Resource Group Inc.

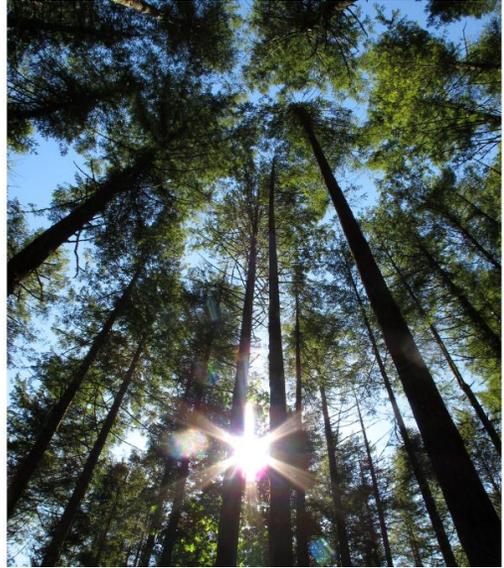
Urban Forest Management Plan



First Draft Review

What We're Looking For

- Seeking **high-level feedback**
- Staff will return to discuss draft **Strategic Recommendation & Implementation Plan**
- Specific implementation actions will be discussed at that time



First Draft Review

1. Does the draft accurately describe **the current status of the urban forest resource and the City operations?**
2. Does the plan adequately address the forest's **threats and opportunities?**
3. Does the plan reflect **the community's vision** for the urban forest?
4. Do the **proposed goals** address these three topics?

