



CITY OF
BAINBRIDGE ISLAND

**CITY COUNCIL STUDY SESSION
TUESDAY, NOVEMBER 15, 2022**

COUNCIL CHAMBERS
280 MADISON AVENUE NORTH
BAINBRIDGE ISLAND, WA

AND

ZOOM WEBINAR
[HTTPS://BAINBRIDGEWA.ZOOM.US/J/92947338351](https://bainbridgewa.zoom.us/j/92947338351)
OR TELEPHONE: US: +1 253 215 8782
WEBINAR ID: 929 4733 8351

AGENDA

1. **CALL TO ORDER / ROLL CALL - 6:00 PM**
2. **APPROVAL OF AGENDA / CONFLICT OF INTEREST DISCLOSURE - 6:05 PM**
3. **PRESENTATION(S)**
 - 3.A **(6:10 PM) Receive Presentation on Housing Action Plan Community Engagement Efforts and Results **2022 Council High Priority Project** - Planning, 30 Minutes**
[HAP Engagement Presentation Nov 2022.pdf](#)
[Bainbridge Island HAP Community Engagement Report and Appendix.pdf](#)
4. **REGULAR BUSINESS**
 - 4.A **(6:40 PM) Receive an Update on the Wastewater Beneficial Re-use Project **2022 Council High Priority Project** - Public Works, 30 Minutes**
[WWTP Beneficial Re-Use Presentation.pptx](#)
[Bainbridge Island WW Beneficial Reuse TM 1 2022-11-01.pdf](#)
 - 4.B **(7:10 PM) Discuss Public Engagement - Executive, 20 Minutes**
[Community Engagement Discussion for CC 11152022](#)
5. **COMMITTEE REPORTS - 7:30 PM**
6. **ADJOURNMENT - 7:40 PM**

GUIDING PRINCIPLES

Guiding Principle #1 - Preserve the special character of the Island, which includes downtown Winslow's small town atmosphere and function, historic buildings, extensive forested areas, meadows, farms, marine views and access, and scenic and winding roads supporting all forms of transportation.

Guiding Principle #2 - Manage the water resources of the Island to protect, restore and maintain their ecological and hydrological functions and to ensure clean and sufficient groundwater for future generations.

Guiding Principle #3 - Foster diversity with a holistic approach to meeting the needs of the Island and the human needs of its residents consistent with the stewardship of our finite environmental resources.

Guiding Principle #4 - Consider the costs and benefits to Island residents and property owners in making land use decisions.

Guiding Principle #5 - The use of land on the Island should be based on the principle that the Island's environmental resources are finite and must be maintained at a sustainable level.

Guiding Principle #6 - Nurture Bainbridge Island as a sustainable community by meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Guiding Principle #7 - Reduce greenhouse gas emissions and increase the Island's climate resilience.

Guiding Principle #8 - Support the Island's Guiding Principles and Policies through the City's organizational and operating budget decisions.



City Council meetings are wheelchair accessible. Assisted listening devices are available in Council Chambers. If you require additional ADA accommodations, please contact the City Clerk's Office at 206-780-8604 or cityclerk@bainbridgewa.gov by noon on the day preceding the meeting.



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: November 15, 2022

ESTIMATED TIME: 30 Minutes

AGENDA ITEM: (6:10 PM) Receive Presentation on Housing Action Plan Community Engagement Efforts and Results **2022 Council High Priority Project** - Planning,

SUMMARY: The City of Bainbridge Island is undertaking a Housing Action Plan (HAP) to identify ways to meet housing needs now and into the future. The presentation on Housing Action Plan Community Engagement Efforts and Results will be given by the HAP consulting team; Triangle Associates is the engagement lead for the HAP team.

Community engagement is a crucial (and required) part of the HAP development process is to involve Bainbridge communities and document their experiences and insights on housing needs. The purpose of the November 15th presentation is to share community engagement methods and findings, ask questions, and discuss next steps.

Phase 1 community engagement efforts on the HAP began in the summer and included:

- Community and Employer Survey
- "We Go to You Meetings"
- Key Informant Interviews
- Focus Groups

This first phase of engagement efforts ended in early October, 2022. Phase 2 community engagement continue throughout the process of developing the draft HAP. Aside from the presentation to Council, an expanded Community Engagement Report can be found on the HAP project page: <https://cityofbainbridgeisland.civilspace.io/en/projects/housing-action-plan>

AGENDA CATEGORY: Presentation

PROPOSED BY: Planning & Community Development

RECOMMENDED MOTION: Receive presentation.

STRATEGIC PRIORITY:

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	Yes

BACKGROUND: On March 8, 2022, the City Council authorized the City Manager to complete a professional services agreement with the firm ECONorthwest for development of a Housing Action Plan (HAP), as authorized by the Council on August 17, 2021. The HAP is described and supported by the state in RCW 36.70A.600.

The work is funded by a grant of \$100,000 from the Washington State Department of Commerce, which the Council accepted on February 8, 2022. The duration of this project is approximately one year beginning in Spring 2022 and extending to June 2023.

A Housing Action Plan should generally identify concrete actions to take to address housing needs, diversify housing options, and increase affordable housing opportunities for diverse people living and working in a community. The main tasks associated with the Housing Action Plan are as follows:

- **Housing Needs Assessment:** Gain a deep understanding of the housing market dynamics, unmet housing needs, and housing projections. Build a multifaceted comprehension of housing market dynamics, existing regulatory influences, and housing needs of today and for the next 20 years.
- **Community Engagement:** Inclusively involve and educate the Bainbridge Island community and stakeholders on housing challenges and decisions. Deepen our understanding by gaining stories and insights on housing experiences and challenges and opportunities.
- **Strategy Development:** Develop and evaluate strategies, informed by data, engagement, and priorities.
- **Housing Action Plan and Implementation Plan:** Refine strategies and deliver a Housing Action Plan designed to meet the housing needs. Identify metrics to monitor the plan.

ATTACHMENTS:

[HAP Engagement Presentation Nov 2022.pdf](#)

[Bainbridge Island HAP Community Engagement Report and Appendix.pdf](#)

FISCAL DETAILS: Total budget for this item is \$157,000. As noted above, \$100,000 is funded by a grant.

Fund Name(s): General Fund

Coding: ORG – 64011586, OBJ – 541100, PRJ - 01186

Summary of Public Engagement Findings

Bainbridge Island Housing Action Plan

November 15, 2022 Bainbridge Island City Council Meeting



ECONorthwest
ECONOMICS • FINANCE • PLANNING

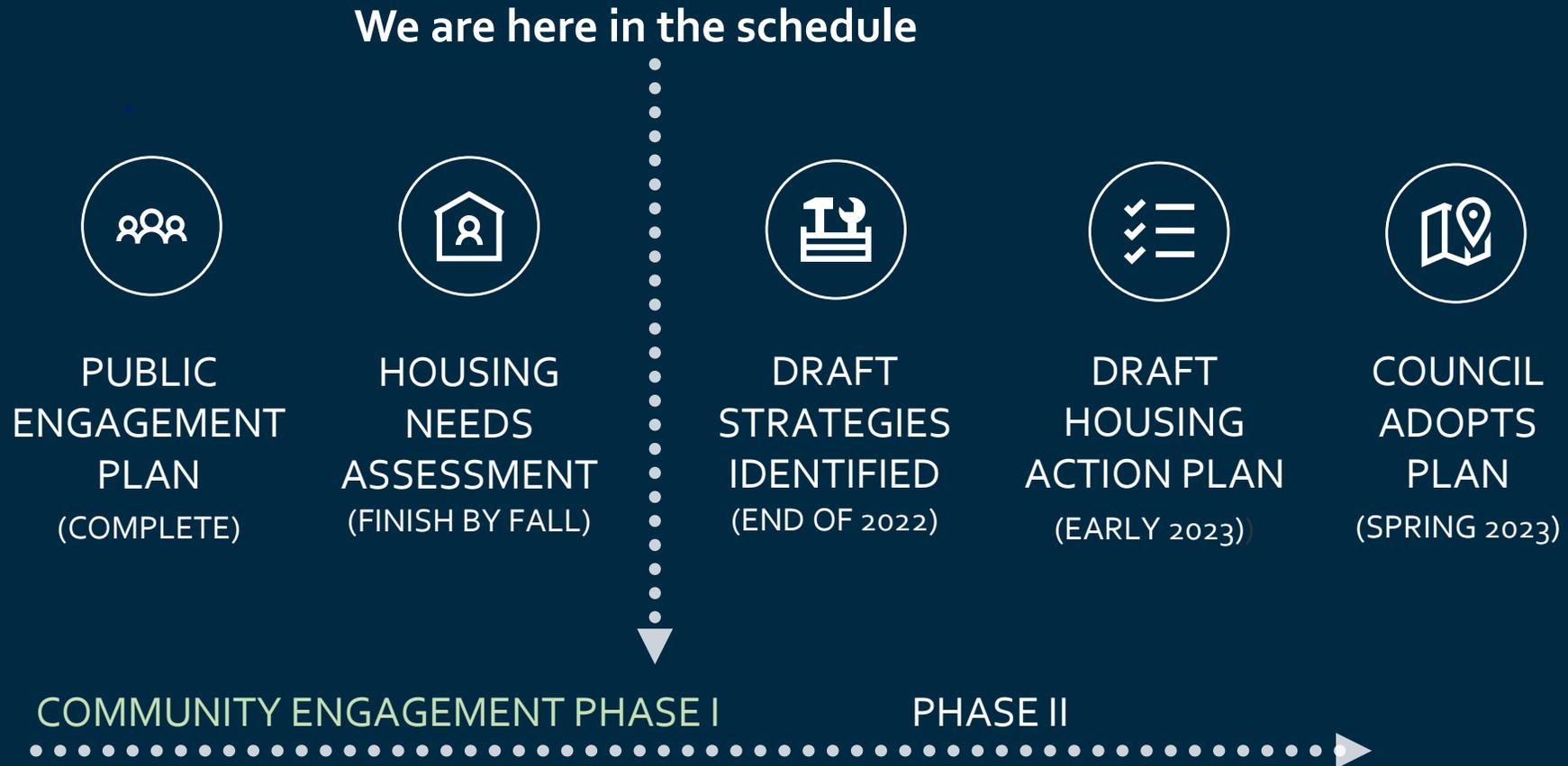
Presentation Outline

- Review of Project Schedule
- Engagement Methods
- Engagement Findings: Community Survey, Employer Survey, We Go to You Meetings, Key Informant Interviews, and Focus Groups
- Next Steps

**Purpose of this meeting is to share community engagement findings, ask questions, and discuss next steps.*



Housing Action Plan Project Schedule



Importance of Engagement: Inclusively involve Bainbridge communities to learn about their experiences, stories, and insights on housing needs, challenges, opportunities, and decisions.

ENGAGEMENT METHODS

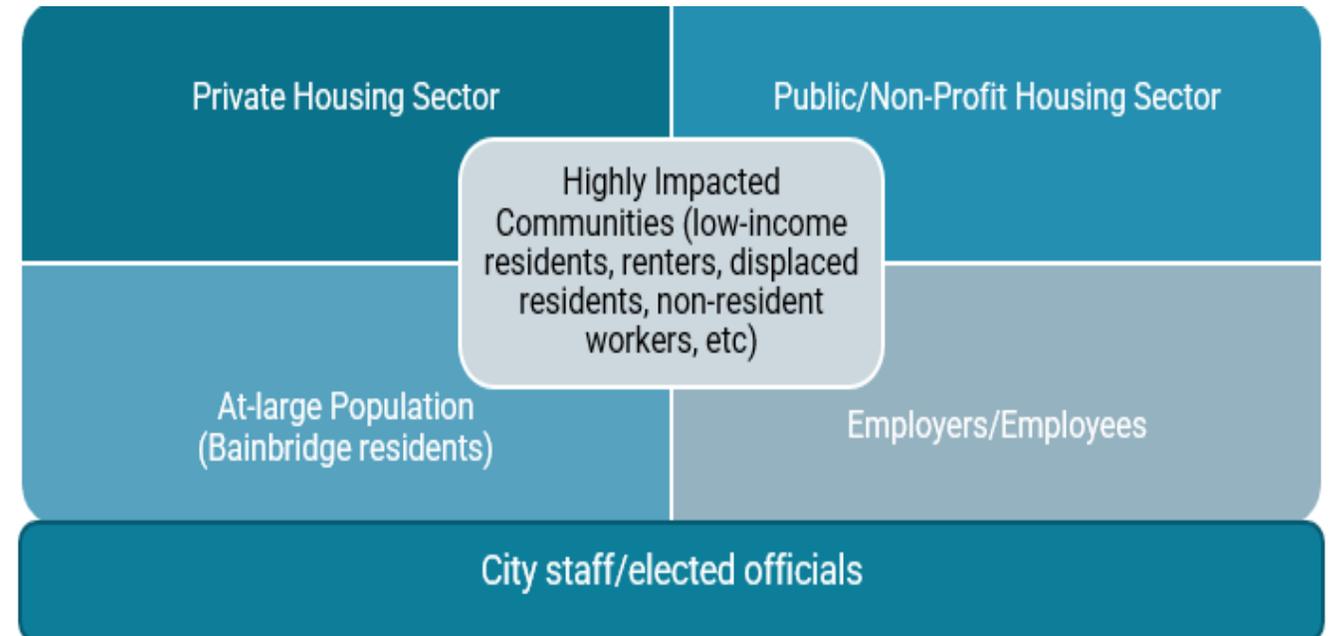
Community Engagement Plan



Engagement Principles

- Meet people where they are at
- Embed education
- Find new voices who traditionally do not participate in policy development
- Honor participants' time by only asking for their feedback on actionable / relevant topics
- Focus on Impacted Communities
- Provide space for all to provide feedback (diverse tactics)

Stakeholder Groups



Inclusively Involved Stakeholders by Offering Diverse Engagement Methods



Community and Employer Surveys (971 responses)



Intercept Surveys (3 locations)



5 "We Go to You" Meetings



10 Key Informant Interviews



3 Focus Groups

Analysis Methods for Summarizing Engagement Findings

Quantitative survey data analysis

Qualitative coding of survey comments
(independent review to reduce bias)

Qualitative coding of all meeting notes
(independent review to reduce bias)

Synthesis into themes

COMMUNITY SURVEY

Community Survey Details

- **Purpose:** Collect the experiences and opinions of people who live and/or work on Bainbridge Island (BI)
- **Timing:** Open from August 5, 2022 – October 3, 2022 (two months)
- **Results:** 800 total responses, including 47 paper responses



Community Survey Promotion

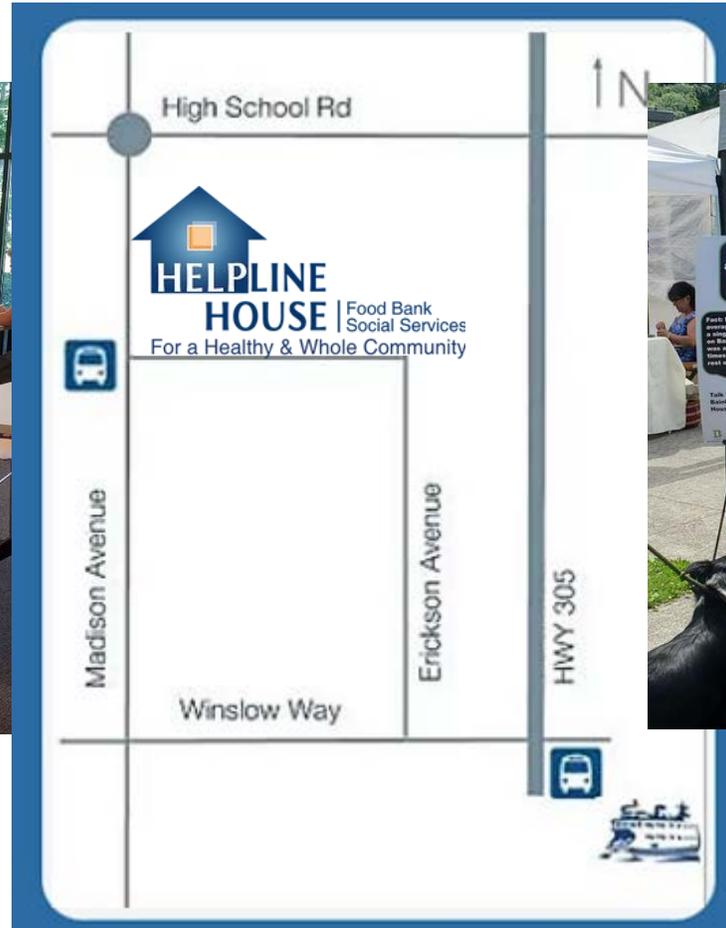
City of Bainbridge Island Channels:

- City's [Engage Bainbridge](#) website
- City's Facebook and Twitter
- Facebook boosted post
- Press release
- Weekly City Manager newsletter
- Tabling at farmer's market

Toolkit for stakeholders and community-based organizations to distribute within their networks:

- School District
- Housing Resources Bainbridge
- Bainbridge Prepares
- Island Volunteer Caregivers
- Kids Discovery Museum
- Peacock Family Services
- Bainbridge Community Foundation
- Friends of the Farms
- Indivisible Bainbridge Island

Intercept Surveys



Community Survey Summary Statistics

The survey respondents were roughly representational of BI residents

Characteristic	Community Survey Results	Bainbridge Population (Census)
Race/Ethnicity: American Indian and/or Alaska Native	2%	<1%
Race/Ethnicity: Asian and/or Asian American	4%	3%
Race/Ethnicity: Black and/or African American	2%	<1%
Race/Ethnicity: Hispanic, Latino/a/x, &/or Spanish origin	4%	5%
Race/Ethnicity: Native Hawaiian and/or Pacific Islander	<1%	<1%
Race/Ethnicity: White	80%	84%
Age: Over 65 Years	35%	26%
Income: Over \$150K	30%	40%
Gender: Women	64%	51%

Community Survey: Key Themes

Cost

High housing cost and property taxes have displaced and/or burdened residents

Workforce/ Commutes

People who work on Bainbridge are priced out of living there, resulting in long commutes

Diversity

The lack of affordable housing does not meet diverse demand and socio-economic needs

Environment

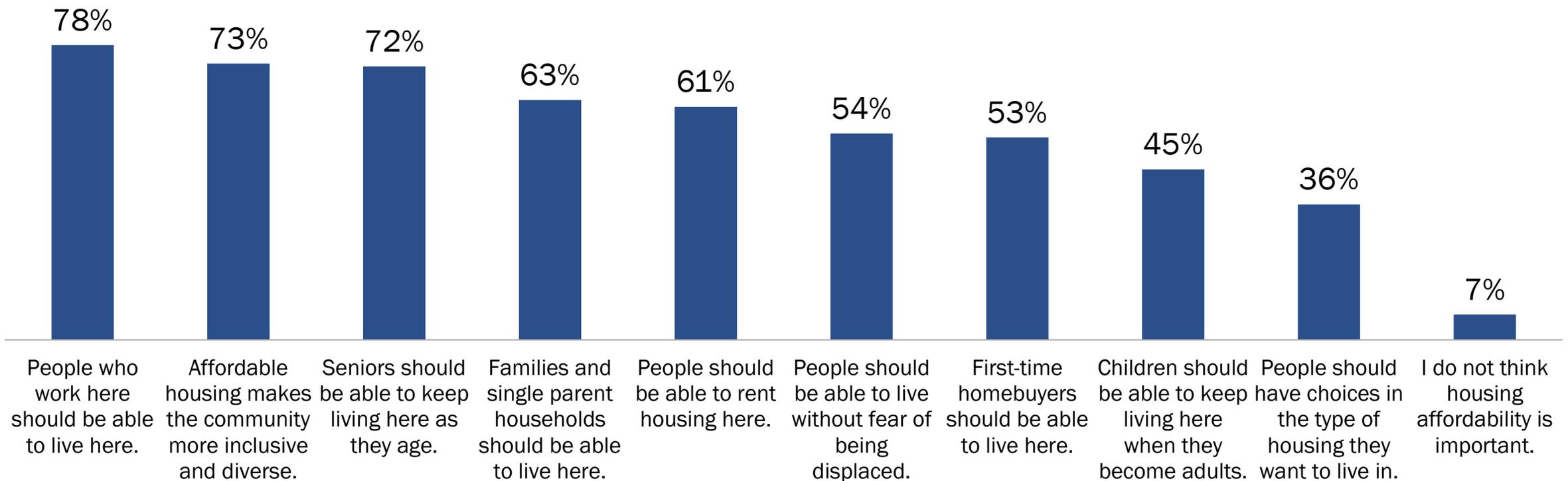
Housing growth should be environmentally sustainable

Seniors

Retired seniors face challenges with the cost of housing and living

Most respondents said people who work on BI should be able to live here and that affordable housing makes the community more inclusive. Very few respondents thought housing affordability was not important.

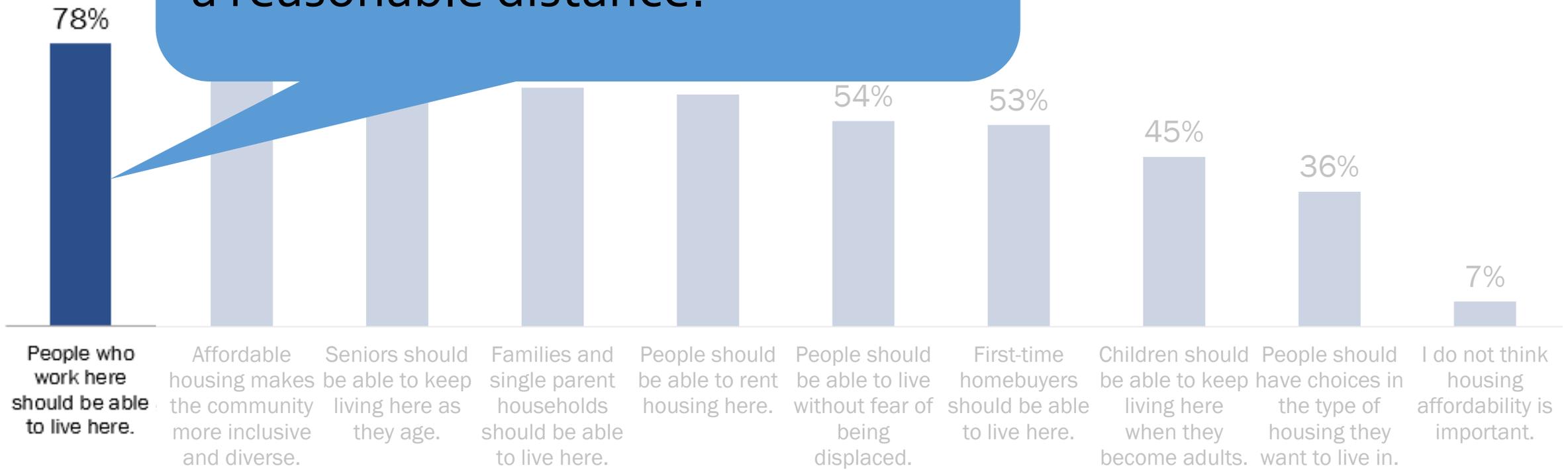
In your opinion, what are the main reasons that housing affordability is important?



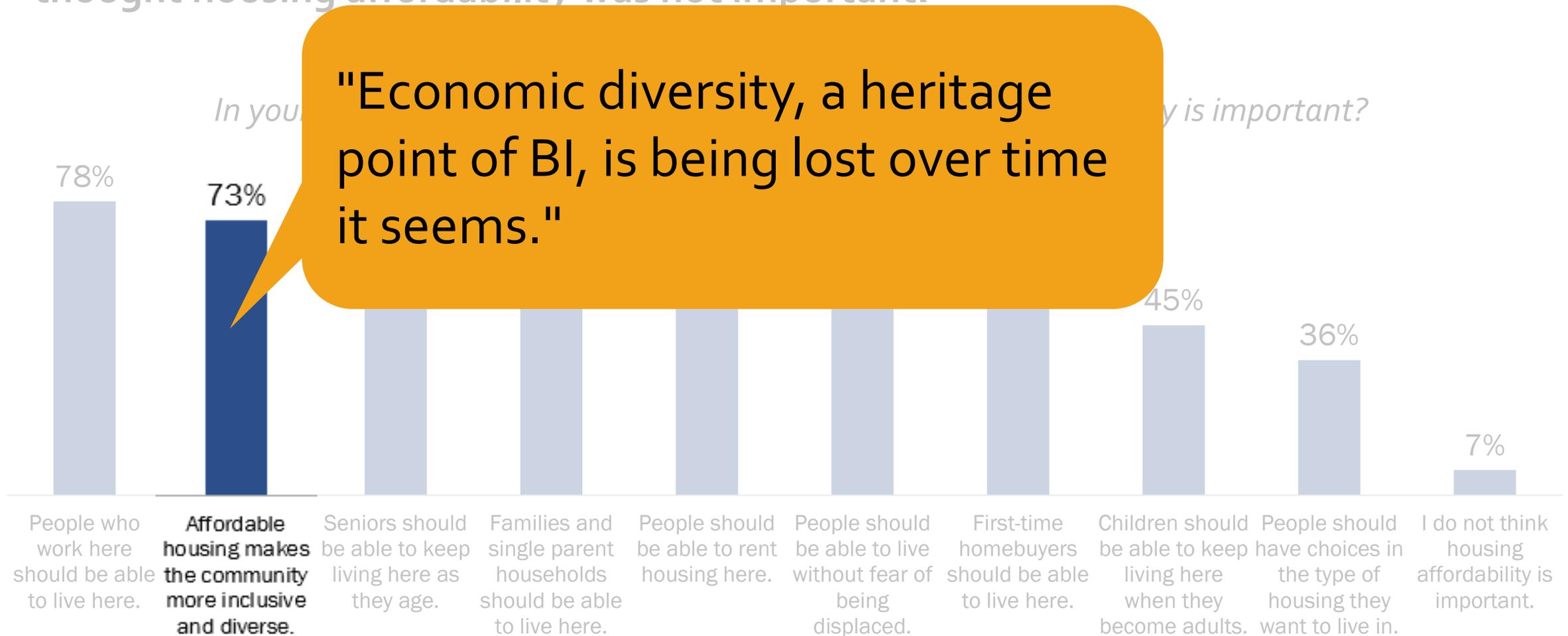
Most respondents said people who work on BI should be able to live here and that affordable housing is important. Very few respondents thought...

"Our businesses have trouble hiring if their staff can't live within a reasonable distance."

...affordability is important?



Most respondents said people who work on BI should be able to live here and that affordable housing makes the community more inclusive. Very few respondents thought housing affordability was not important.



"Economic diversity, a heritage point of BI, is being lost over time it seems."

Most respondents said people who work on BI should be able to live here and that affordable housing makes the community more inclusive. Very few respondents thought housing affordability is important.

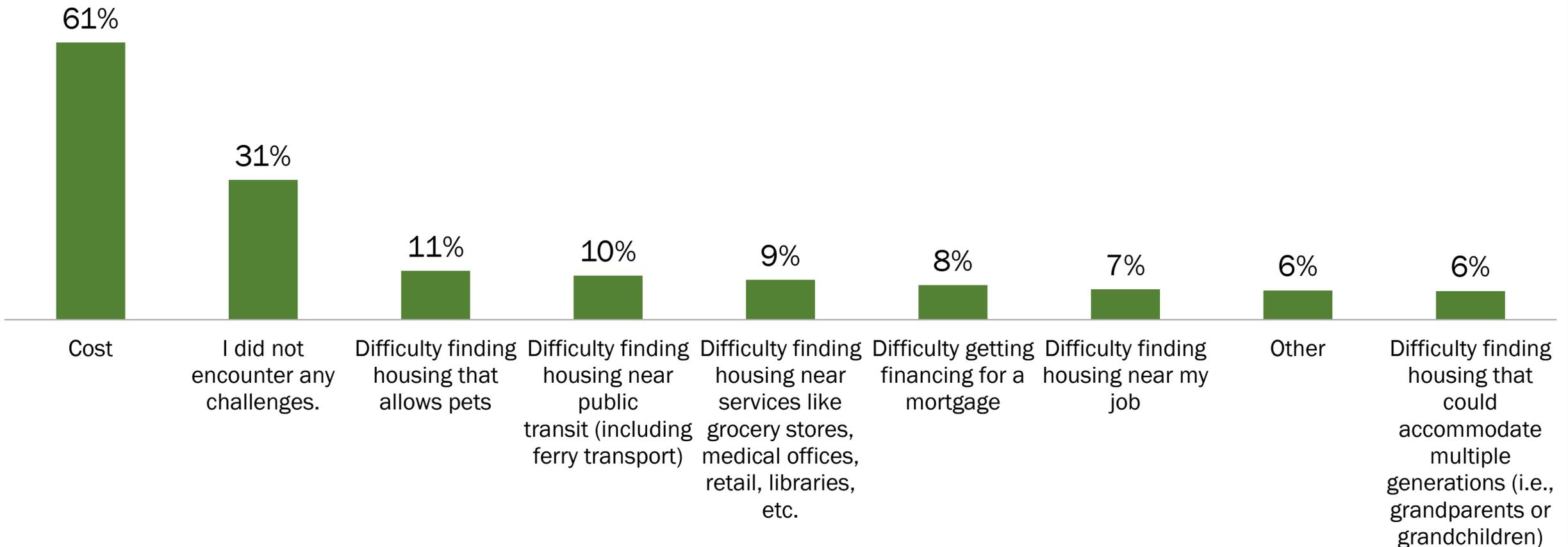
In your opinion, what housing affordability is important?

"In retirement we will be unable to maintain payments."



Overall, the respondents cited cost as being the top challenge for when they were looking for housing.

When you looked for housing on Bainbridge Island, did you encounter any of these challenges?



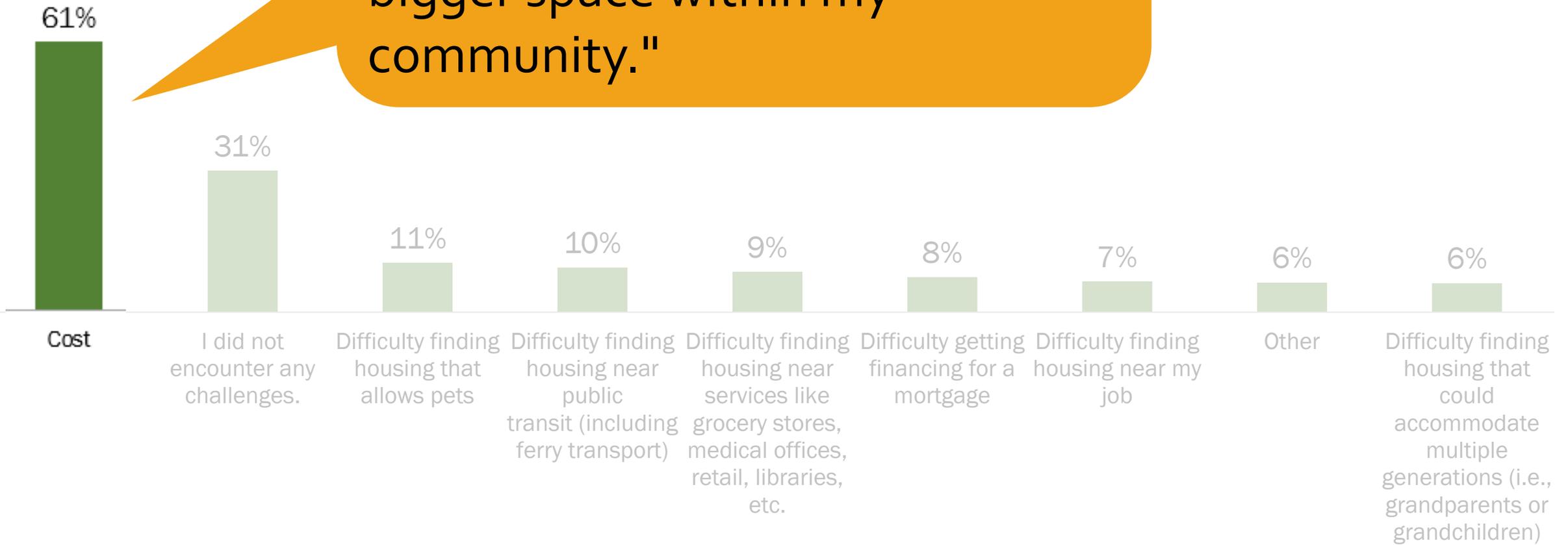
Overall, the most common challenge for respondents was the cost of housing when they were looking for a home.

challenge for respondents.

When you look at the most common challenge for respondents, the cost of housing was the most common challenge for 61% of respondents.

of these challenges?

"I will not be able to stay sane raising kids in such a small space and won't be able to afford a bigger space within my community."



Challenges for Finding a Home



More Challenging:

- Cost

**Non-white only respondents*



More Challenging:

- Finding housing that accepts Section 8 vouchers or other subsidies
- Finding housing that is ADA accessible or could accommodate disabilities

**People > 65 with <\$50k household incomes*



Less Challenging:

- Cost

**Selected "no new housing" for question #13*

Workforce Commuting to Bainbridge

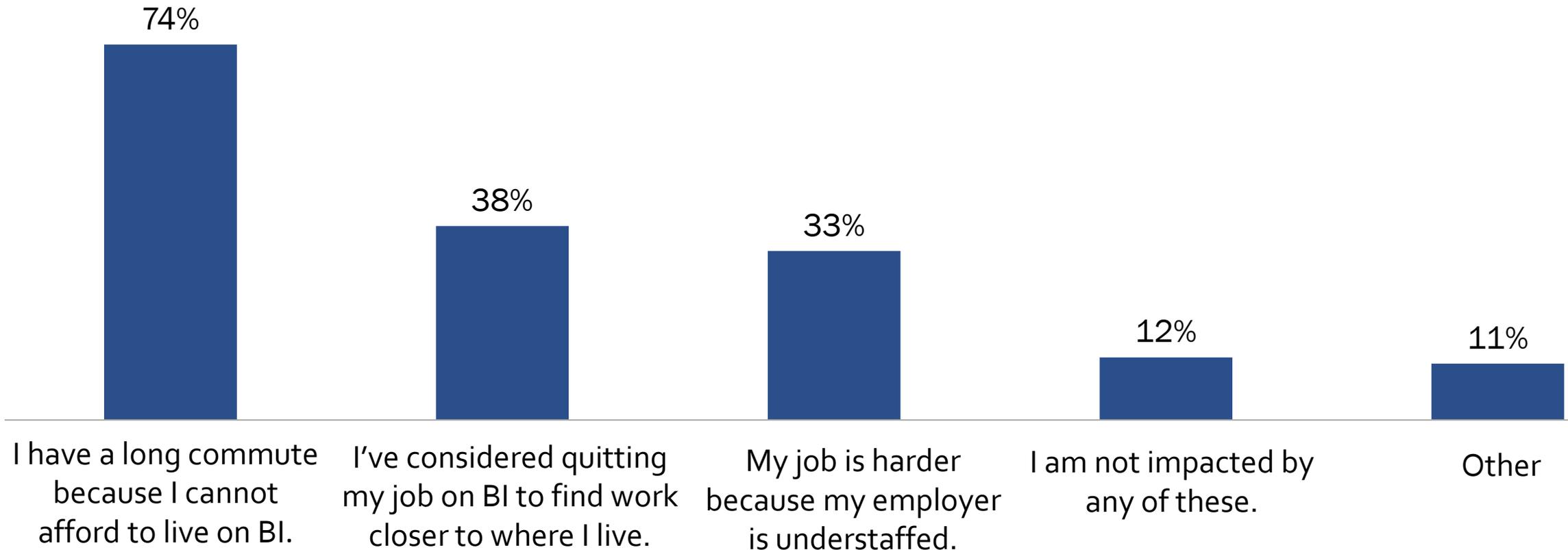
64 of the 81 respondents (79%) who work on Bainbridge but don't live there shared they would live on Bainbridge if they could afford it.



Source: ShareAlike 3.0 Unported Creative Commons

88% of respondents who work but do not live on BI indicated that housing has impacted their ability to work on Bainbridge.

Respondents who work but do not live on Bainbridge: How does housing on Bainbridge Island affect your ability to work on Bainbridge Island?



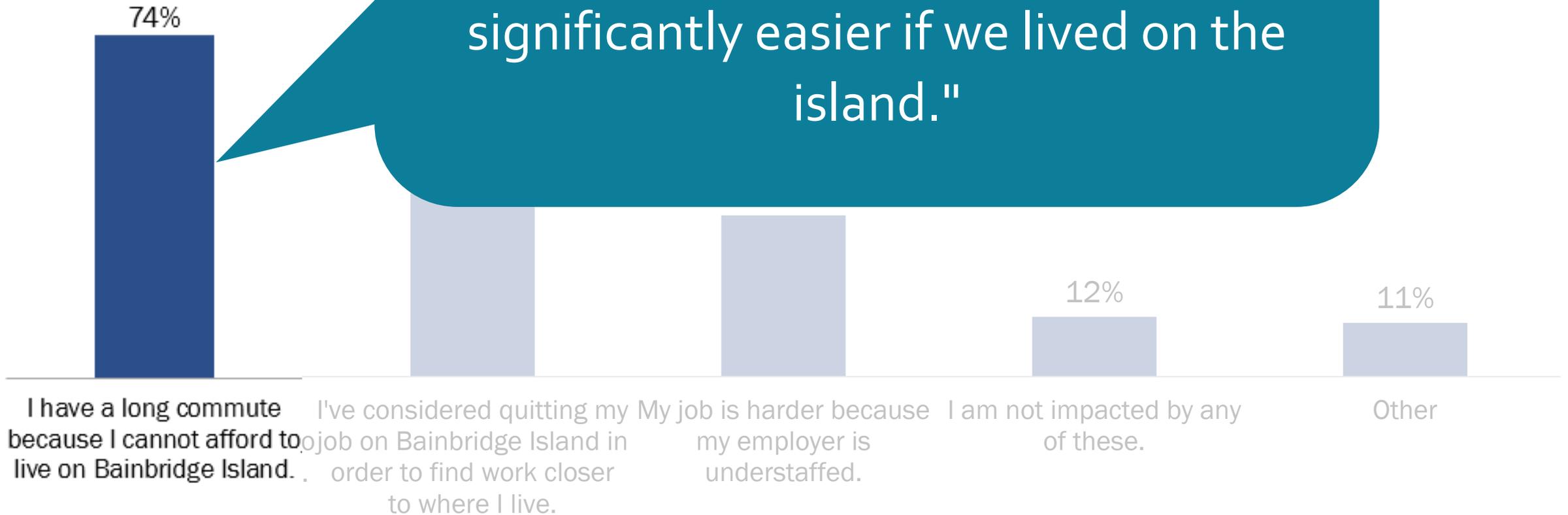
88% of respondents said that housing has impacted their lives.

and that

Respondents who work

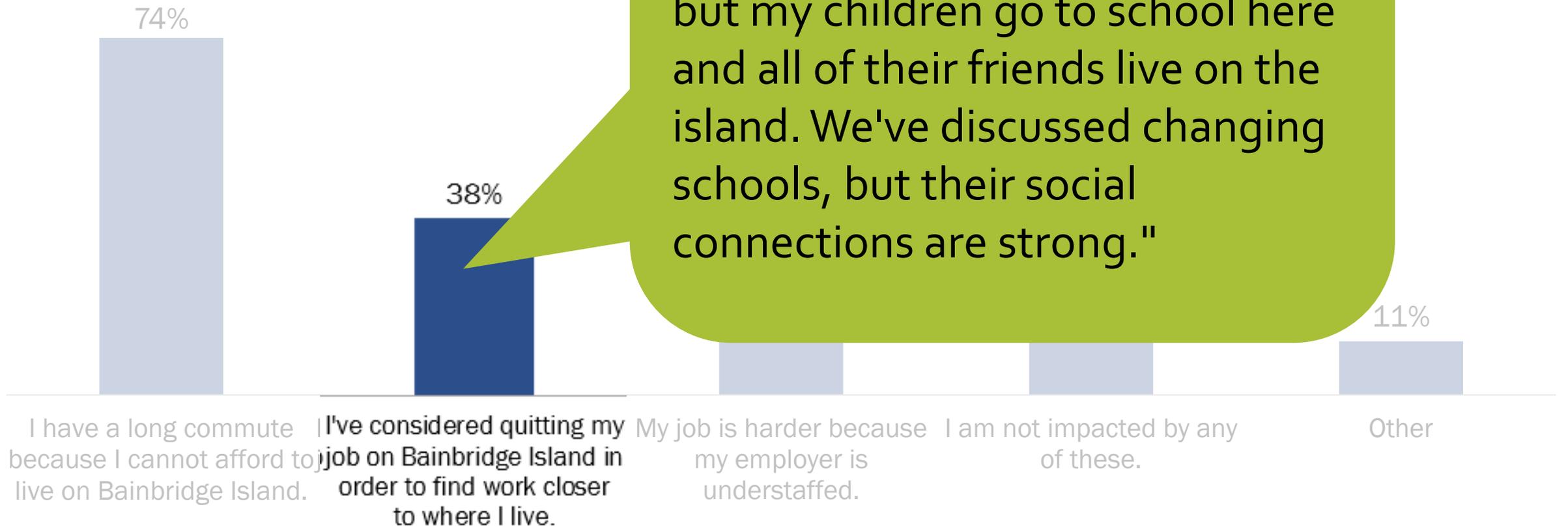
effect your

"This will be my ninth-year teaching for BISD. My husband works for [---] and commutes every day. Our lives would be significantly easier if we lived on the island."



88% of respondents who work but do not live on Bainbridge Island reported that housing has impacted their ability to find work.

Respondents who work but do not live on Bainbridge Island reported that housing has impacted their ability to find work.



Economically Displaced Residents

- 4% percent of respondents (or 34 persons) said they used to live on BI but had to move because they could not afford their housing.
- Among these respondents, around 82% work for pay at a job physically located on BI.



Economically Displaced Residents

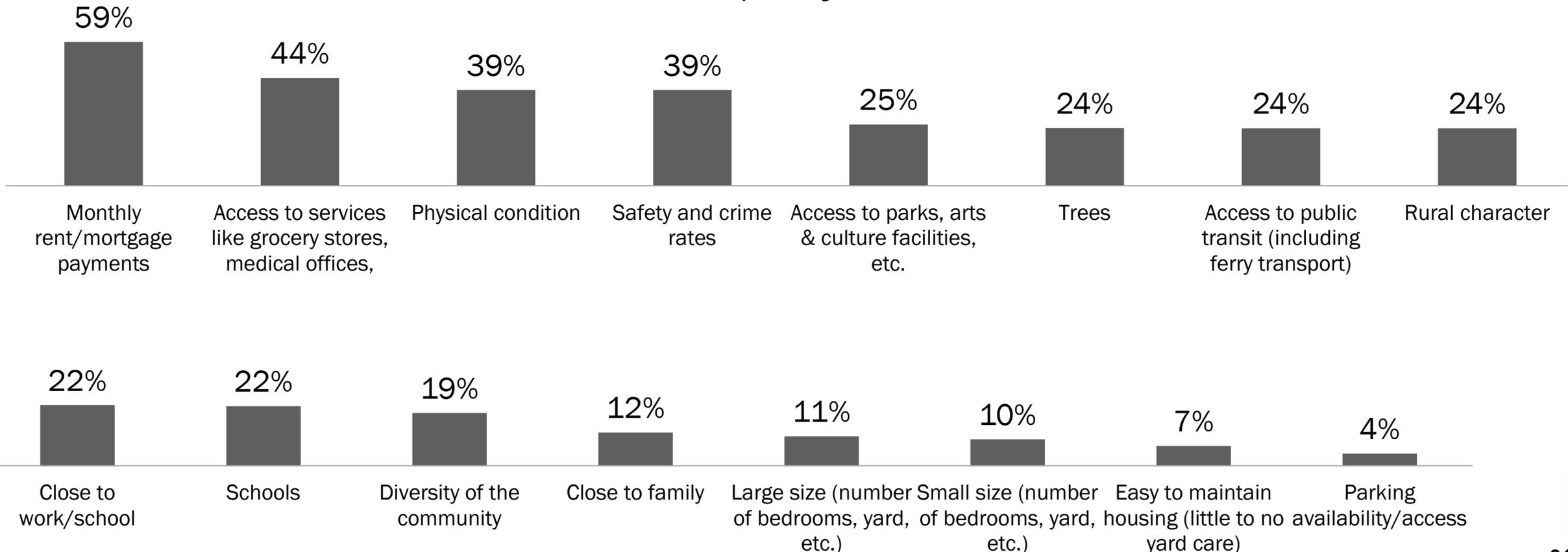
"I lived on BI for over 20 years and have spent countless hours volunteering & serving on boards to build a strong community. I work here full-time, and it is so disappointing that now that I am divorced and, on a budget, this community no longer wants me here - no accommodations for those with limited income."



Source: ShareAlike 4.0 International

59% of all respondents indicated that monthly rent/mortgage payments was an important factor, followed by access to services, physical condition, and safety/crime rates.

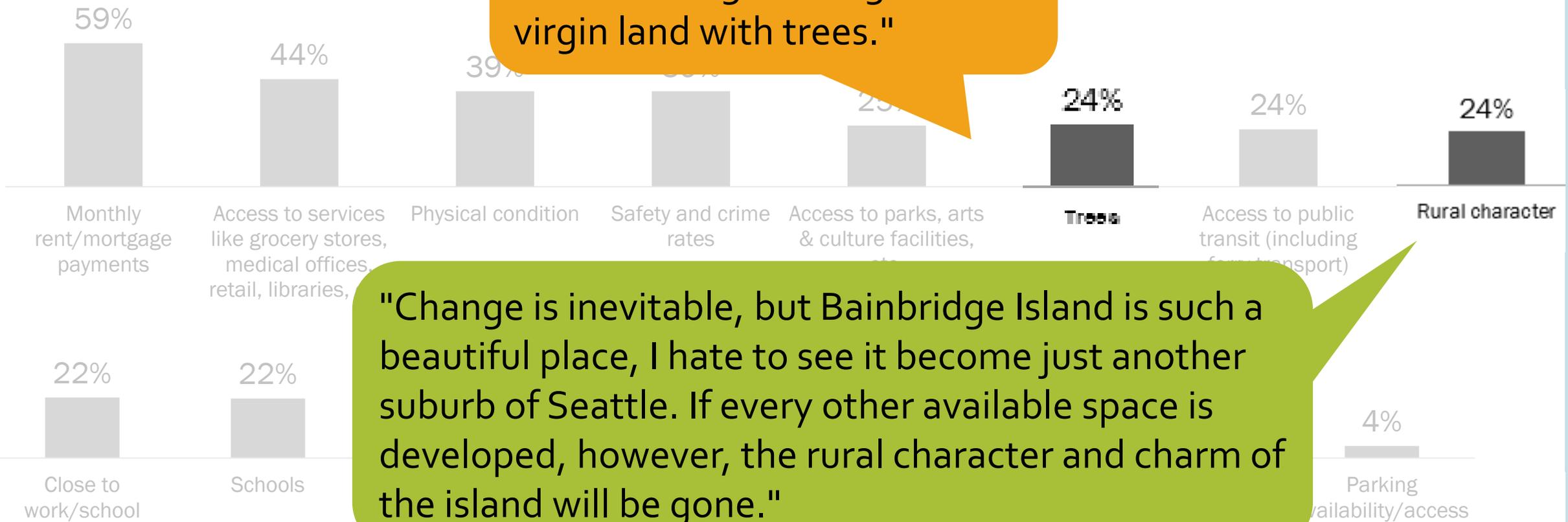
*When you choose a place to live, which of these factors are most important to you?
Choose up to 4 factors.*



59% of all respondents indicated that monthly rent/mortgage payments was an important factor, followed by access to services, physical condition, and safety/crime rates

When you choose a place to live, what is most important to you?

"I'm concerned about environmental destruction from building housing on virgin land with trees."



"Change is inevitable, but Bainbridge Island is such a beautiful place, I hate to see it become just another suburb of Seattle. If every other available space is developed, however, the rural character and charm of the island will be gone."

Important Factors for Choosing a Home



Low-income seniors*

More important:

- Access to services
- Small size of house



Low-income households*

More important:

- Monthly rent/mortgage
- Small size of house



Prefers no new housing growth*

More important:

- Safety and crime
- Rural character
- Trees



High-income households*

More important:

- Schools
- Access to parks, art, culture

*People over 65 with <\$50k income

*People with <\$50k household incomes

**Selected "no new housing" for question #13*

*People with >\$150K household incomes



Single-family Home



Cottage Housing



Tiny House/ADU

What types of housing, if any, would you like to see more of on Bainbridge Island?



Duplex



Row House



Zero Lot Line



Liveaboard Units



Garden Apartment



Mixed-use, Mid-rise



Micro Units

I don't want to see any more housing

Other



Single-family Home



66%

Cottage Housing



47%

Tiny House/ADU

What types of housing, if any, would you like to see more of on Bainbridge Island?



42%

Duplex



Row House



Zero Lot Line



Liveboard Units



46%

Garden Apartment



Mixed-use, Mid-rise



Micro Units

I don't want to see any more housing

Other

Preference for Types of New Housing



Low-income families with children*

**People with children at home and <\$50K incomes*

Greater Preference:

- ADUs
- Cottage housing
- Mixed-use, mid-rise
- Row houses/town houses
- Microunits



Cottage Housing



Tiny House/ADU



Mixed-use, Mid-rise



Row House



Micro Units

EMPLOYER SURVEY

Employer Survey Details

- **Purpose:** Collect the experiences and opinions of BI employers
- **Timing:** Open from August 5, 2022 – October 3, 2022 (two months)
- **Results:** 171 total responses

Employer Survey Promotion

City of Bainbridge Island Channels:

- City's [Engage Bainbridge](#) website
- City's Facebook
- Press release
- Email blast to registered businesses

Toolkit for stakeholders and community-based organizations to distribute within their networks:

- Chamber of Commerce
- Downtown Association
- Friends of the Farms
- Peacock Family Services

Employer Survey: Key Themes

Long Commutes

Many employees cannot afford to live on Bainbridge and need to commute

Recruitment and Retention

Many employers have difficulty recruiting, hiring, and retaining staff

Affordable Housing

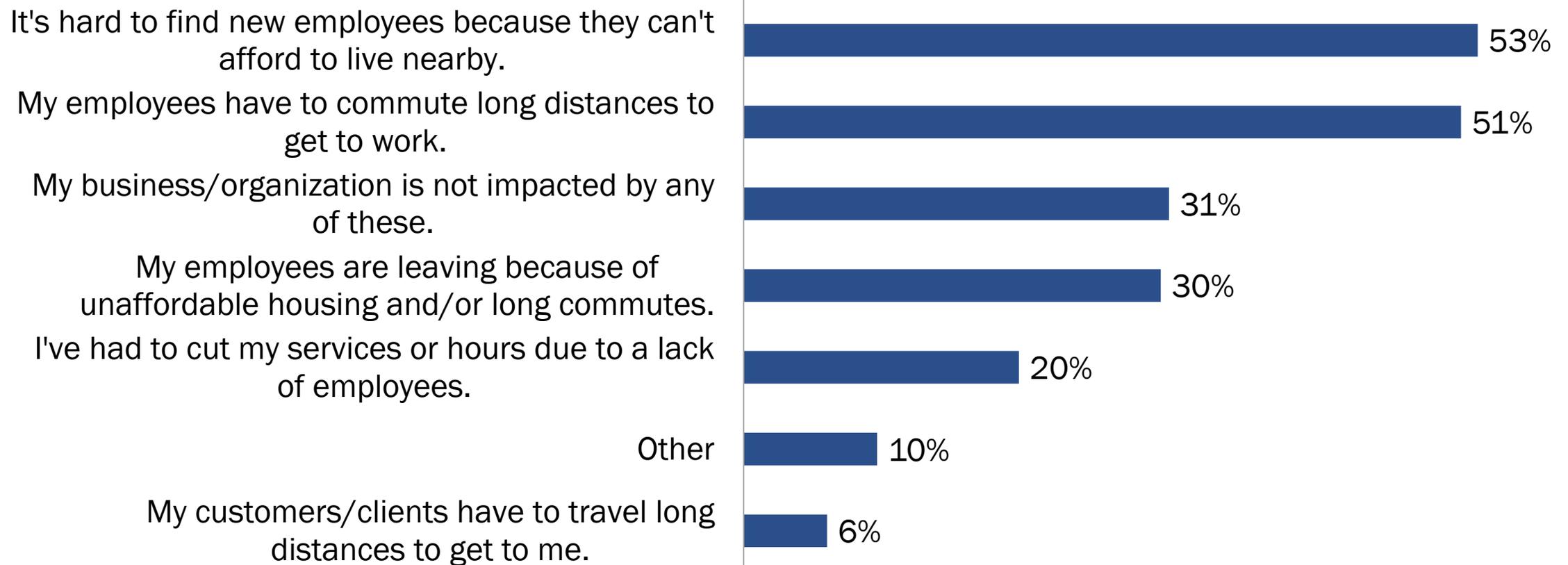
Bainbridge's workforce would benefit from more affordable housing and types of housing

Regulations

City regulations can make affordable housing difficult to build

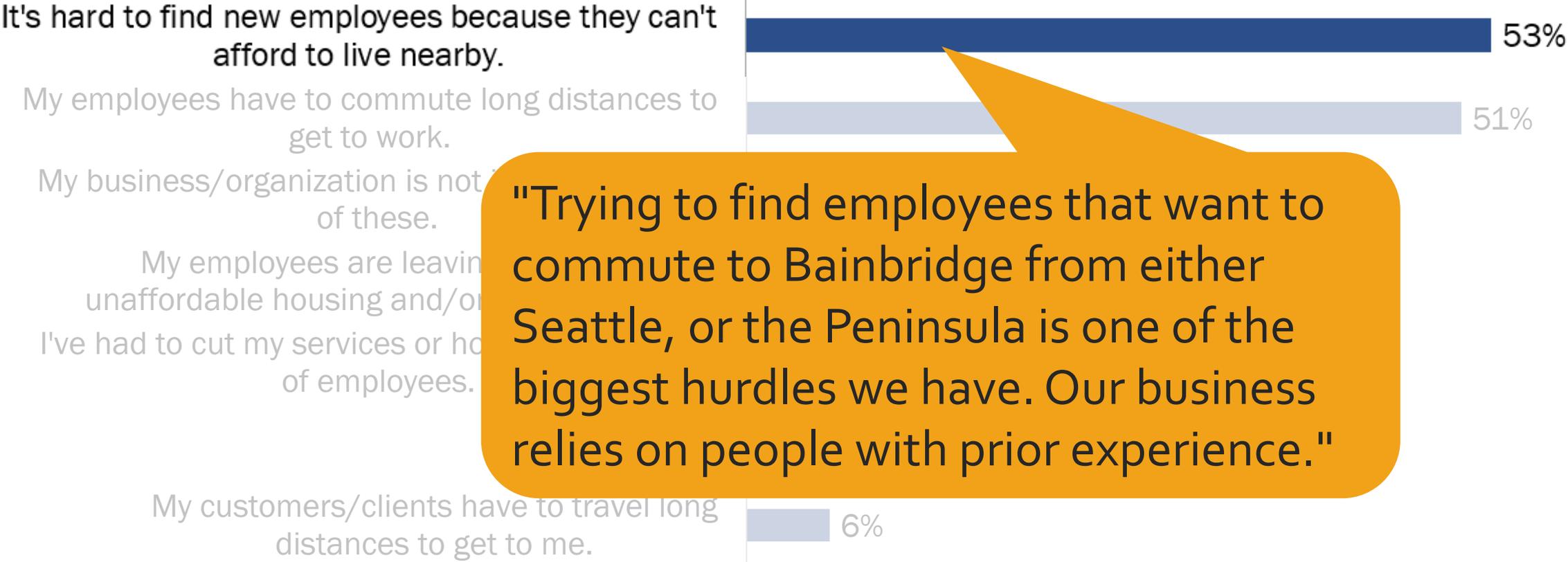
Roughly half of respondents said recruitment and employee commutes are challenges; roughly one third indicated that they aren't experiencing challenges

How does housing on Bainbridge Island affect your business/organization?



Roughly half of respondents said recruitment and employee commutes are challenges; one third indicated that they aren't experiencing challenges

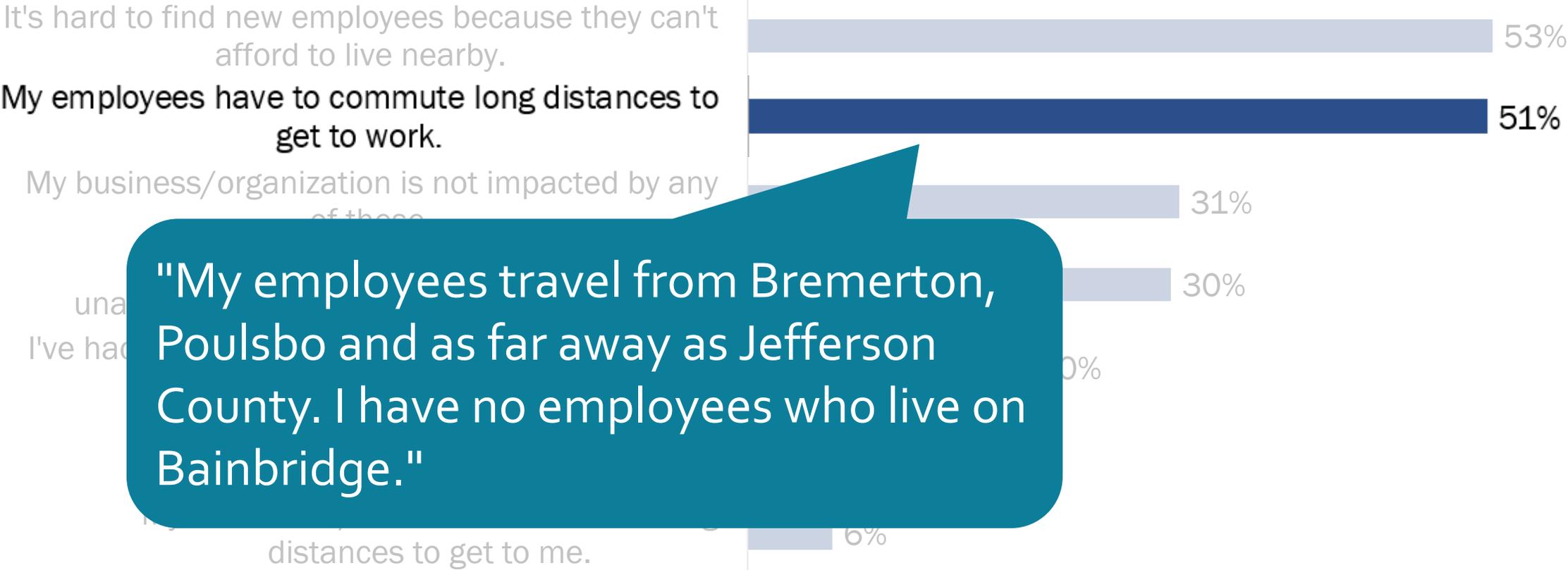
How does housing on Bainbridge Island affect your business/organization?



"Trying to find employees that want to commute to Bainbridge from either Seattle, or the Peninsula is one of the biggest hurdles we have. Our business relies on people with prior experience."

Roughly half of respondents said recruitment and employee commutes are challenges; one third indicated that they aren't experiencing challenges

How does housing on Bainbridge Island affect your business/organization?



"My employees travel from Bremerton, Poulsbo and as far away as Jefferson County. I have no employees who live on Bainbridge."

Impact of Housing on Businesses



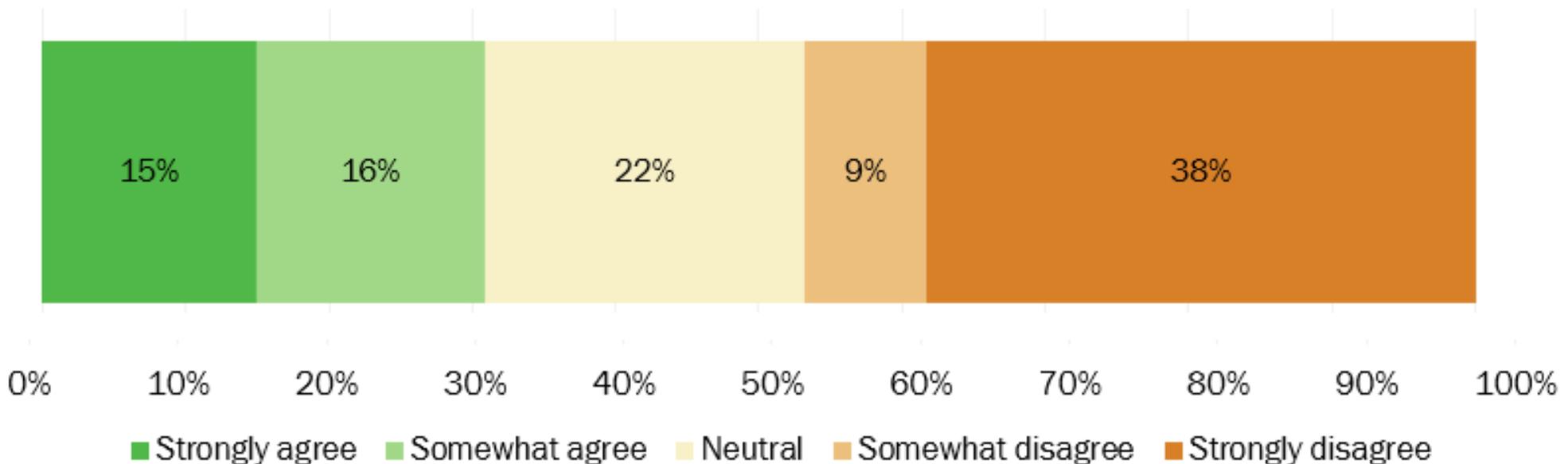
More Difficulty:

- Hiring Bainbridge residents
- Employees with long commutes
- Employees who leave due to long commutes

Among employers with >1 employee, 31% agreed that housing issues have made them consider moving their business, while 45% disagreed

How strongly do you agree with this statement?

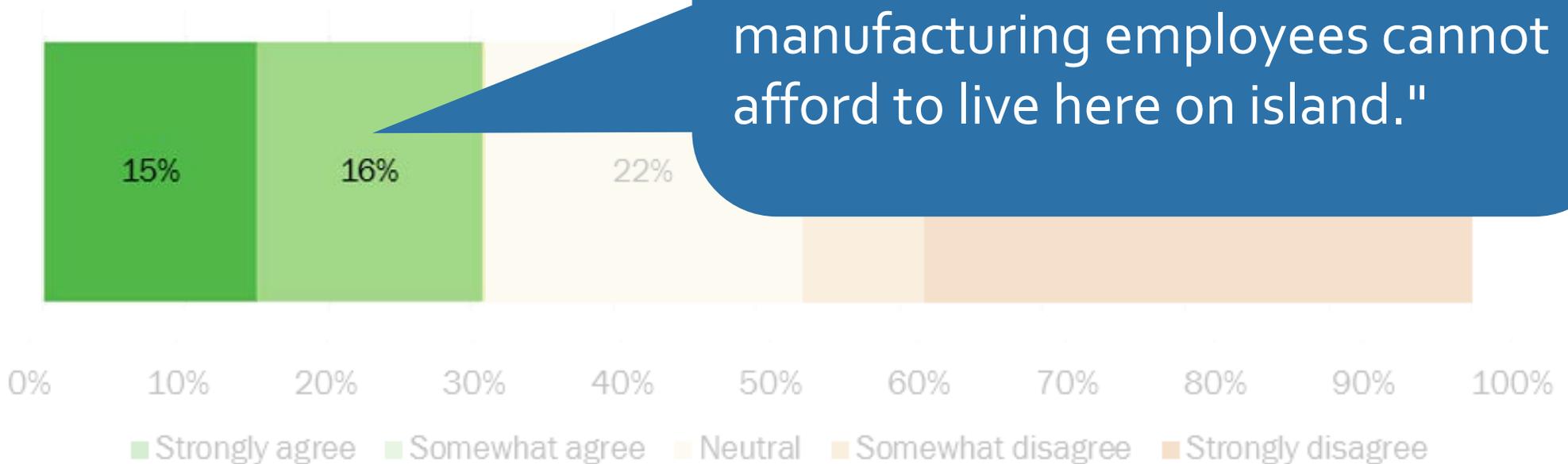
The availability of affordable housing on Bainbridge Island has made me consider moving my business/organization elsewhere or closing my business/organization.



Data note: Twenty "Not applicable (e.g., school district)" responses were recorded for this question. These are not included in the data display.

Among employers with >1 employee, 31% agreed that housing issues have made them consider moving their business, while 47% disagreed.

How strongly do you agree or disagree that the availability of affordable housing on Bainbridge Island has made you consider moving your business/organization elsewhere?

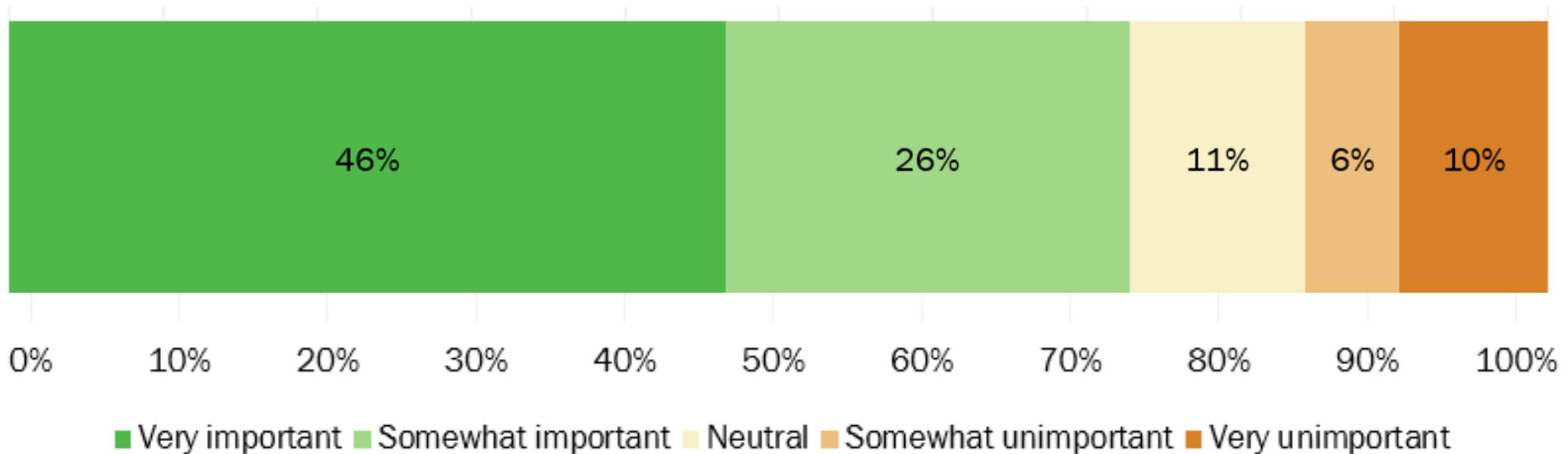


"We are considering moving our business off island so that we can more easily find employees. Our manufacturing employees cannot afford to live here on island."

Data note: Twenty "Not applicable (e.g., school district)" responses were recorded for this question. These are not included in the data display.

72% of employers with >1 employees said affordable housing is important to their business/organization

Compared to other priorities facing your business/organization, how would you rate the importance of the availability of affordable housing on Bainbridge Island?



We Go to You Meetings

- Bainbridge Conservation Coalition
 - + Recommendations Report
- Alliance of Childcare Providers
- Interfaith Council
- Housing Resources Bainbridge Affordable Housing Stakeholder Group
- Bainbridge Island Senior Center



Bainbridge Conservation Coalition

Themes from WGTY Meetings

Workers

It is difficult to hire workers here due to the lack of affordable housing, from service workers, to pastors, to teachers, to caregivers

Young People

There are few young families and young people living on the Island, affecting the workforce and civic/religious life

Environment

Growth should be environmentally sustainable and adhere to the conservation goals in the City's Comprehensive Plan.

Diversity

The lack of affordable housing makes the community less diverse (income, race, etc.) and people want diversity to enrich the community

Seniors

Seniors after they retire have trouble remaining on the Island due to the cost of housing and living

Regulations

Regulations and zoning can stand in the way of building more housing

Themes from WGTY Meetings

Workers

It is difficult to hire workers here due to the lack of affordable housing, from service workers, to pastors, to teachers, to caregivers

Young People

There are few young families and young living on the Island, affecting the workforce

"I'd like to see young families, and grandkids starting families being able to afford living on BI. My grandkids visit us and love the island. But some of them would like to move here, if they could afford it."

Environment

Growth and conservation

Diversity

The labor force (income) and diverse community

Seniors

Seniors after they retire have trouble remaining on the Island due to the cost of housing and living

Regulations

Regulations and zoning can stand in the way of building more housing

Themes from WGTY Meetings

Workers

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Young People

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Diversity

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Seniors

Seniors after they retire have trouble remaining on the Island due to
the cost of housing and living

Regulations

Regulations and zoning can stand in the way of building more housing

"Focus new housing in Winslow near the Island's only high-capacity transit center...it spares the majority of the Island from more dense development, resulting in less environmental impacts."

"The words, "housing crisis", are all too often used to preempt consideration of impacts to our climate and environment."

Themes from WGTY Meetings

Workers

It is difficult to hire workers here due to the lack of affordable housing, from service workers, to pastors, to teachers, to caregivers

Young People

There are few young families and young living on the Island, affecting the workforce and civic/religious life

Environment

Growth should be environmentally sustainable and adhere to the conservation goals in the City's Comprehensive Plan.

Diversity

The lack of affordable housing makes the community less diverse (income, race, ethnicity, etc.) and less vibrant. A diverse community

Seniors

Seniors are being priced out of the community due to the cost of housing

Regulations

Regulations and zoning can stand in the way of building more housing

"A robust community with all kinds of people allows us to get new ideas, grow, and thrive."

Key Informant Interviews

City of Bainbridge Island Committees

- Bainbridge Climate Change Advisory Committee
- Bainbridge Design Review Board
- Bainbridge Race Equity Advisory Committee
- Bainbridge Planning Commission

Nonprofit Organizations

- Helpline House
- Housing Resources Bainbridge

Public Sector Leaders

- Fire Department Chief Hank Teran
- Bainbridge Human Resources Kate Brown
- Bainbridge Public School District Superintendent Peter Bang-Knudsen
- Police Department Chief Joe Clark

Themes from Key Informant Interviews

Workforce

Bainbridge employers have lost many employees including volunteers due to housing issues

Public Employees

Public sector employees need affordable housing so they can live in the community they serve, if they choose to. The amount of public sector employees that live on island is decreasing

Enrollment

Student enrollment has decreased significantly which decreases school district funding and could result in cuts to programs

Exclusivity

Missing middle and low-income housing perpetuates an exclusive and homogeneous community

Change

Bainbridge can grow responsibly and prioritize development around community fabric and transportation needs

Quotes from Key Informant Interviews



I've hired principals and others who make good salaries but can't find a house for their family, let alone folks on the lower end of the income continuum [...] There is a strong correlation between the small amount of new development and lack of housing and therefore decline in enrollment.

- Peter Bang-Knudsen, BISD Superintendent



We try to make great working conditions internally, but what I hear from a number of people who leave is that they love working on Bainbridge, but the commute is difficult on them and their families [...] We talk about the diversity of the community, but a number of people with diverse backgrounds can't afford to live here.

- Hank Teran, Fire Chief

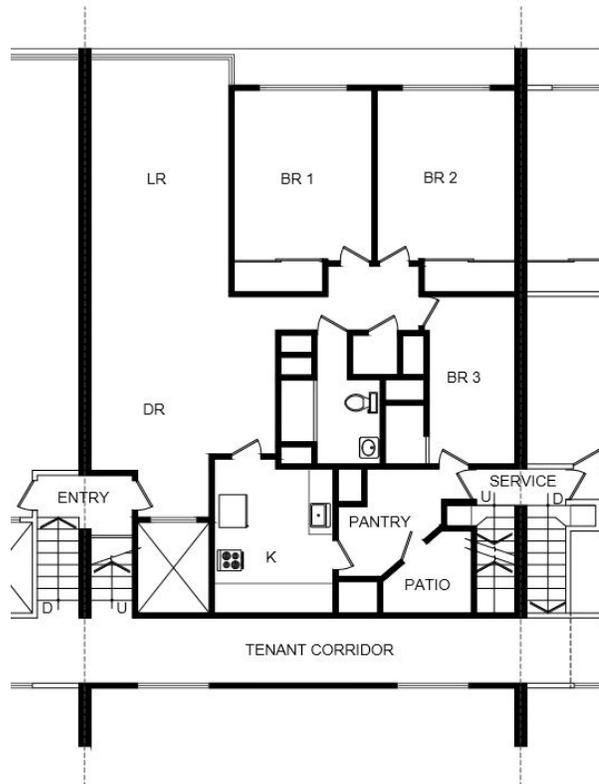


Availability of housing that meets [middle income] needs and price range doesn't exist here. This is especially important for my officer's price point and their ability to live here in the community.

- Joe Clark, Police Chief

Focus Groups

Developers: 5 participants



Employers/Businesses: 9 participants



Themes from Developer Focus Group

Incentives

Add and improve the following tools and programs: density bonuses for affordable housing, purchasing Floor Area Ratio, Housing Design Demonstration Project (HDDP), Multifamily property tax exemption, etc.

Voluntary Programs

Voluntary programs are preferable over mandatory programs from a bank financing perspective

Parking

Parking requirements are a barrier to building small units

Density

Bainbridge should allow and incentivize more density in core areas. Typically, there is community pushback about increasing density

Themes from Developer Focus Group

Incentives

Add and improve the following tools and programs: density bonuses for affordable housing, purchasing Floor Area Ratio, Housing Design Demonstration, property tax exemption, etc.

Voluntary Programs

Voluntary programs from a bank financing project

"Affordable housing still has to show a profit to get a loan. Most of our projects are mixed."

Parking

Parking requirements for small units.

Density

Bainbridge should allow and incentivize more density in core areas. Typically, there is community pushback about increasing density.

Themes from Developer Focus Group

Incentives

Add and improve the following tools and programs: density bonuses for affordable housing, purchasing Floor Area Ratio, Housing Design Demonstration Project (HDDP), Multifamily property tax exemption, etc.

Voluntary Programs

Voluntary financing programs from a bank

Parking

Parking requirements for units.

Density

Bainbridge should allow and incentivize more density in core areas. Typically, there is community pushback about increasing density.

"The fact that [the City] stopped purchase of bonus FAR is a very big impact on open market housing."

Themes from Employer Focus Groups

Workforce Housing for All

Employees across the income spectrum – from service workers to well-paid professionals – have trouble finding housing

Resiliency Challenges

Many frontline workers in emergency management and healthcare live off Bainbridge Island, creating resiliency challenges

Commuters

People commuting onto Bainbridge increases traffic

Multifamily & Rentals

There needs to be more multi-family housing and rental options

Recruitment & Retention

Employers have trouble recruiting and retaining staff. Some have considered moving their business elsewhere

Themes from Employer Focus Groups

Workforce Housing for All

Employees across the income spectrum – from service workers to well-paid professionals – have trouble finding housing

Resiliency Challenges

Many in Bainbridge have lost jobs and are looking for work off

Commuters

People comm

Multifamily & Rentals

There needs to be more multi-family housing and rental options

Recruitment & Retention

Employers have trouble recruiting and retaining staff. Some have considered moving their business elsewhere.

"Bainbridge is on its way to becoming a labor desert"

Themes from Employer Focus Groups

Workforce
Housing for All

Employees across
paid profession

**Resiliency
Challenges**

Ma
Dan

Commuters

People commu

Multifamily &
Rentals

There needs to

Recruitment
& Retention

Employers have trou
considered moving their business elsewhere.

"Everyone who does frontline work commutes from far distances. Someone left after working here for three months because she was living in a place without running water on BI. It's become ludicrous, [that] even the highest-ranking person can't afford to live here."

Themes from Employer Focus Groups

Workforce Housing for All

Employees across the income spectrum – from service workers to well-paid professionals – have trouble finding housing

Resiliency Challenges

Many frontline workers in emergency management and healthcare live off Bainbridge Island, creating family and health challenges

Commuters

People commuting

Multifamily & Rentals

There needs to be

Recruitment & Retention

Employers have trouble recruiting and retention. Some have considered moving their business elsewhere.

"I only have 60 percent of the employees I need. I am just surviving. Only one employee lives on Bainbridge Island."

Summary of Themes Across Engagement

Housing for All

Bainbridge needs more housing types that fit diverse needs and reduce cost barriers, especially rentals and other housing for moderate to middle income levels

Seniors

Many seniors are struggling to stay in their homes after they retire due to property taxes and difficulty downsizing on the Island

Community

Bainbridge is losing its sense of being a multi-generational and diverse community with decreasing young families, young persons, and low-income households

Employers

Employee recruitment and retention is becoming increasingly challenging for employers due to the lack of affordable housing wanted by the workforce across nearly all income levels

Regulations

The City needs to adjust policies/regulations to improve access to housing affordable to a broader diversity of people

Thank You!

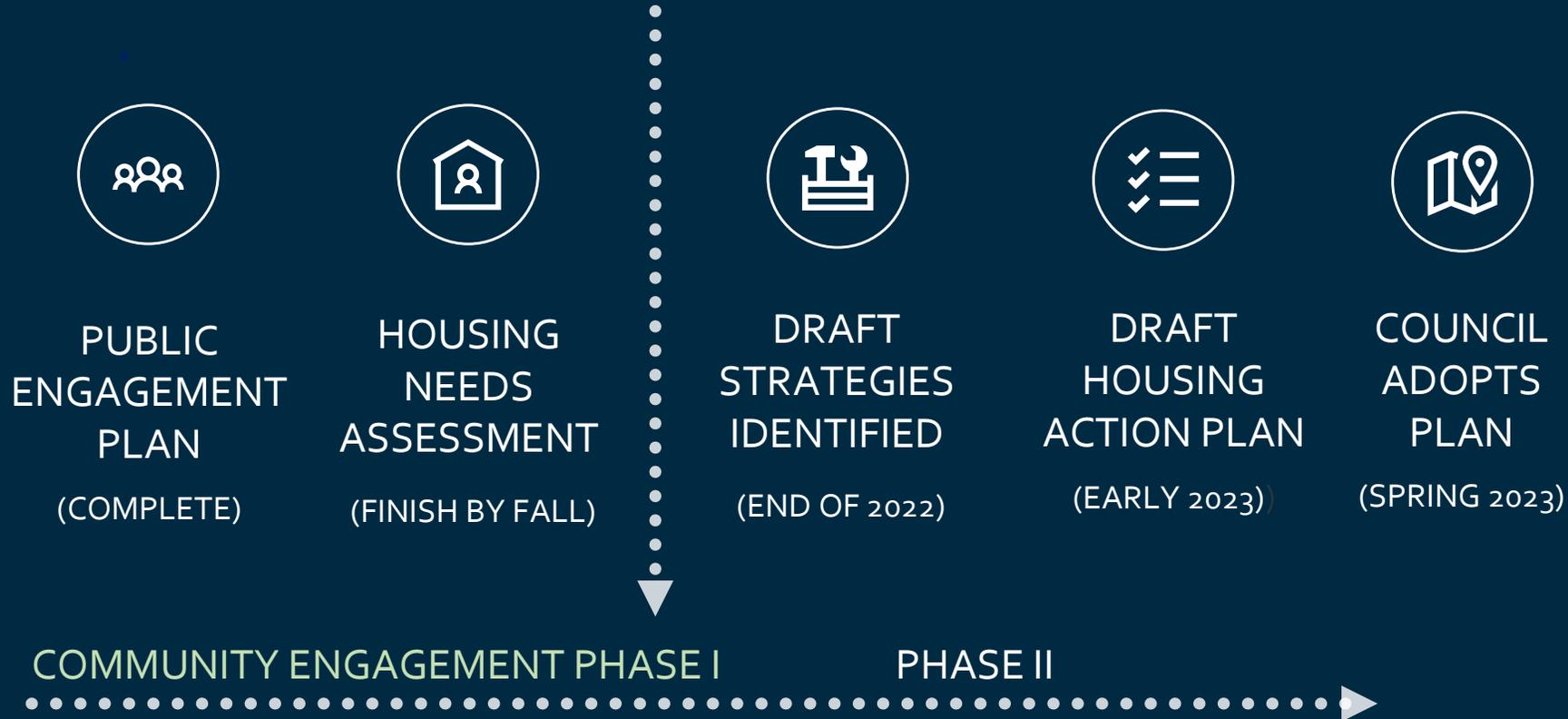
Thank you to all the people who...

- Shaped the public engagement strategy
- Filled out surveys and spread the word
- Hosted and participated in focus groups
- Hosted We Go to You meetings
- Participated in an interview
- Provided guidance along the way



Next Steps

We are here in the schedule



The housing needs assessment and engagement findings will help shape the Housing Action Plan, provide a balance of quantitative and qualitative information, and help the HAP to become more data-driven, community-informed, and supported.

QUESTIONS?

Summary of Public Engagement Findings, Phase I Report

Bainbridge Island Housing Action Plan



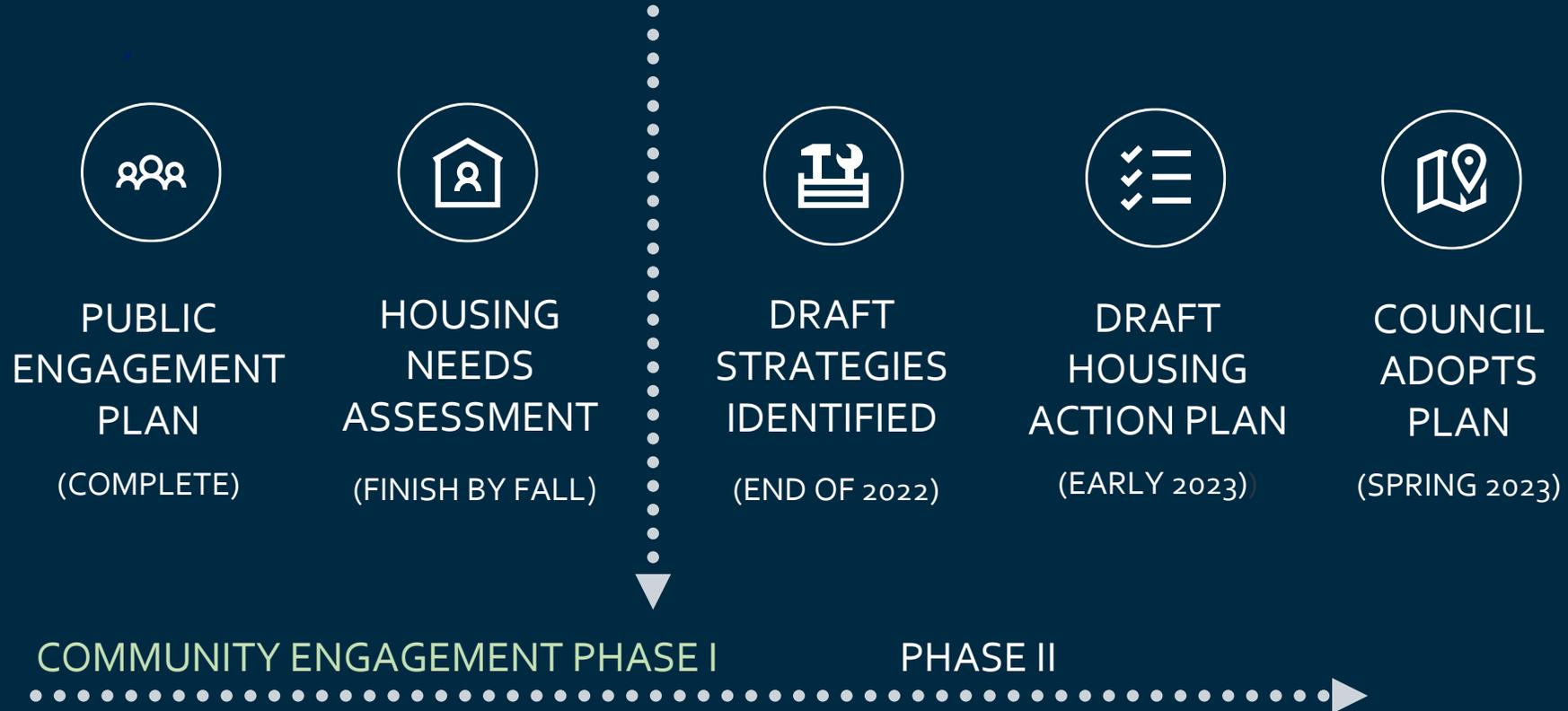
ECONorthwest
ECONOMICS • FINANCE • PLANNING

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Housing Action Plan Project Schedule

We are here in the schedule



Importance of Engagement: Inclusively involve Bainbridge communities to learn about their experiences, stories, and insights on housing needs, challenges, opportunities, and decisions.

ENGAGEMENT METHODS

Community Engagement Plan



Engagement Principles

- Meet people where they are at
- Embed education
- Find new voices who traditionally do not participate in policy development
- Honor participants' time by only asking for their feedback on actionable / relevant topics
- Focus on Impacted Communities
- Provide space for all to provide feedback (diverse tactics)

Stakeholder Groups



Inclusively Involved Stakeholders by Offering Diverse Engagement Methods



Community and Employer Surveys (971 responses)



Intercept Surveys (3 locations)



5 "We Go To You" Meetings



10 Key Informant Interviews



3 Focus Groups

Analysis Methods for Summarizing Engagement Findings

Quantitative survey data analysis

Qualitative coding of survey comments
(independent review to reduce bias)

Qualitative coding of all meeting notes
(independent review to reduce bias)

Synthesis into themes

COMMUNITY SURVEY

Community Survey Details

- **Purpose:** Collect the experiences and opinions of people who live and/or work on Bainbridge Island (BI)
- **Timing:** Open from August 5, 2022 – October 3, 2022 (two months)
- **Results:** 800 total responses, including 47 paper responses

Community Survey Promotion

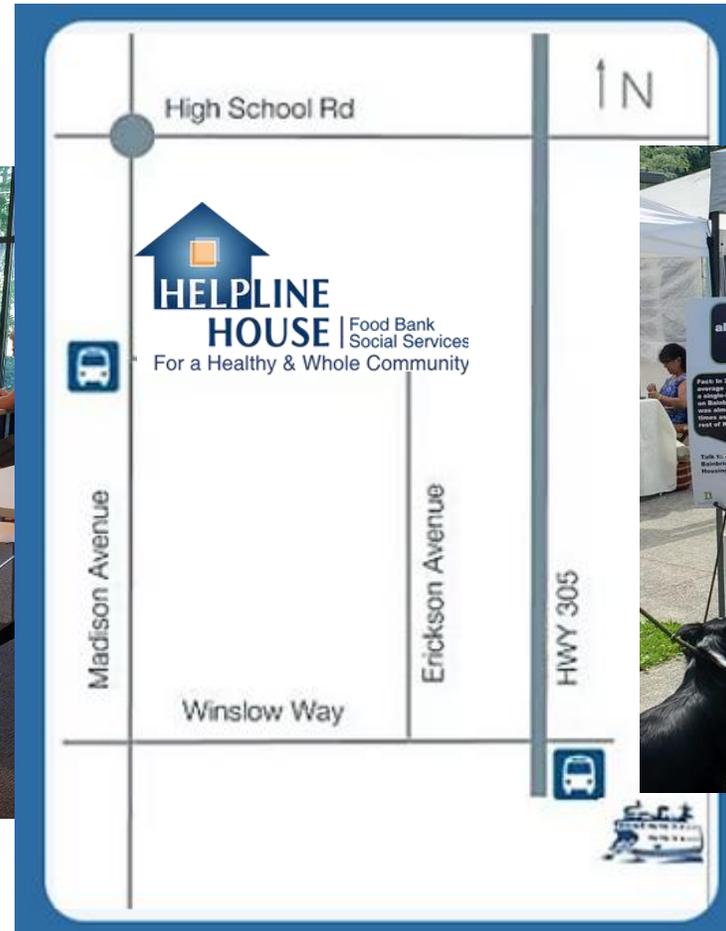
City of Bainbridge Island Channels:

- City's [Engage Bainbridge](#) website
- City's Facebook and Twitter
- Facebook boosted post
- Press release
- Weekly City Manager newsletter
- Tabling at farmer's market

Toolkit for stakeholders and community-based organizations to distribute within their networks:

- School District
- Housing Resources Bainbridge
- Bainbridge Prepares
- Island Volunteer Caregivers
- Kids Discovery Museum
- Peacock Family Services
- Bainbridge Community Foundation
- Friends of the Farms
- Indivisible Bainbridge Island

Intercept Surveys



Community Survey Summary Statistics

The survey respondents were roughly representational of Bainbridge residents

Characteristic	Community Survey Results	Bainbridge Population (Census)
Race/Ethnicity: American Indian and/or Alaska Native	2%	<1%
Race/Ethnicity: Asian and/or Asian American	4%	3%
Race/Ethnicity: Black and/or African American	2%	<1%
Race/Ethnicity: Hispanic, Latino/a/x, &/or Spanish origin	4%	5%
Race/Ethnicity: Native Hawaiian and/or Pacific Islander	<1%	<1%
Race/Ethnicity: White	80%	84%
Age: Over 65 Years	35%	26%
Income: Over \$150K	30%	40%
Gender: Women	64%	51%

Community Survey: Key Themes

Cost

High housing cost and property taxes have displaced and/or burdened residents

Workforce/ Commutes

People who work on Bainbridge are priced out of living there, resulting in long commutes

Diversity

The lack of affordable housing does not meet diverse demand and socio-economic needs

Environment

Housing growth should be environmentally sustainable

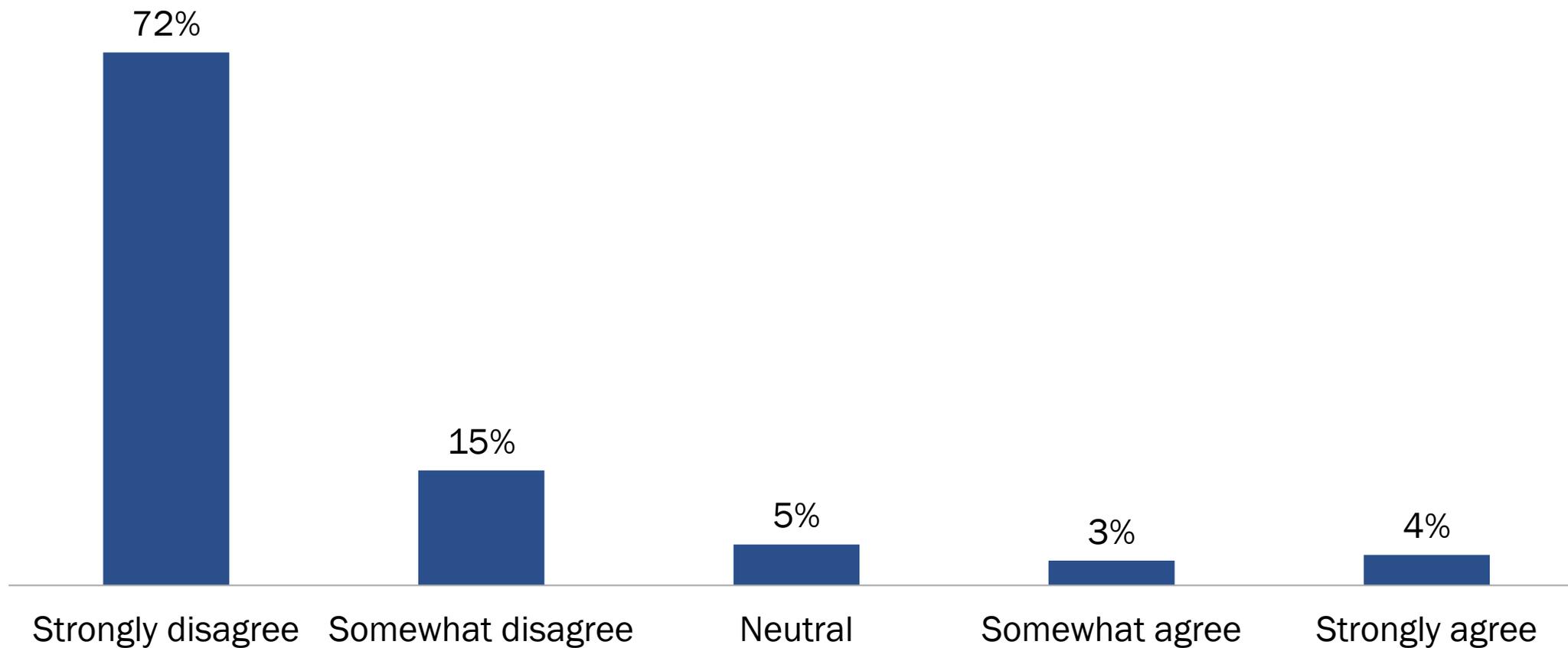
Seniors

Retired seniors face challenges with the cost of housing and living

87% of respondents disagreed that people of all economic segments can find affordable housing on BI.

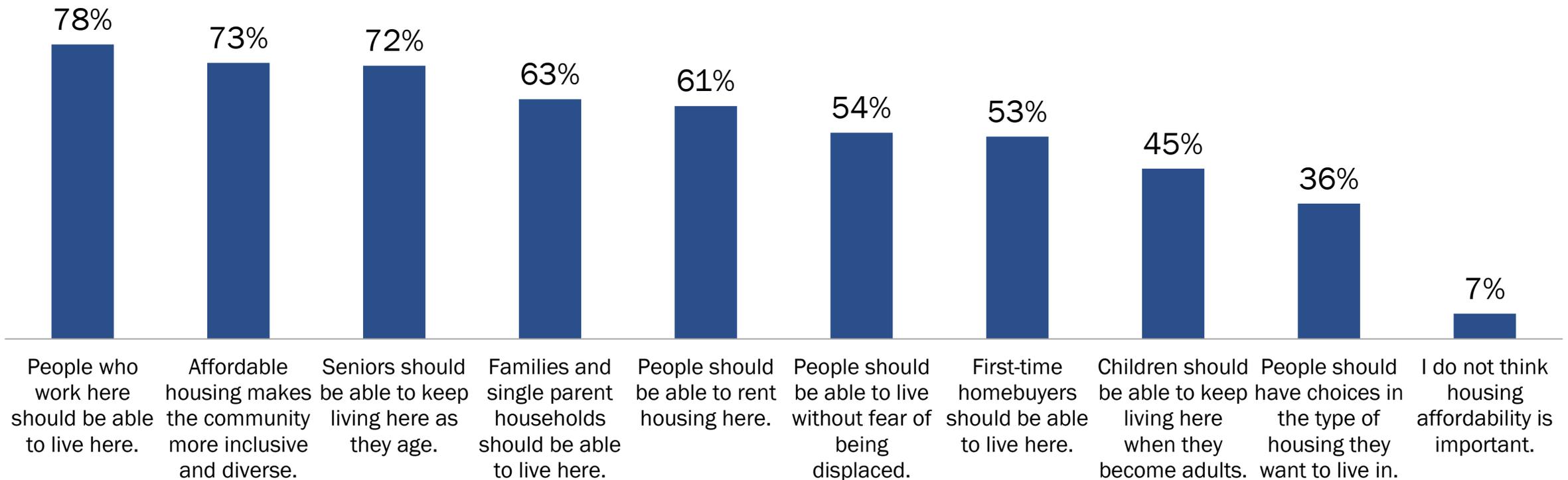
How strongly do you agree with this statement?

People of all economic segments can find housing on Bainbridge Island that is affordable



Most respondents said people who work on BI should be able to live here and that affordable housing makes the community more inclusive. Very few respondents thought housing affordability was not important.

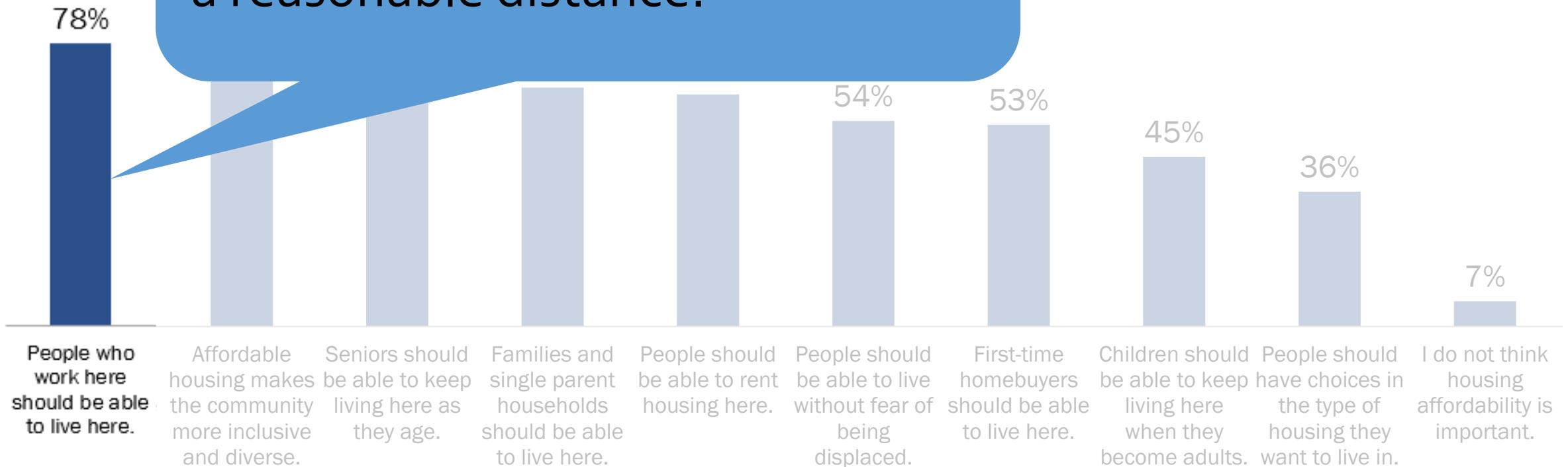
In your opinion, what are the main reasons that housing affordability is important?



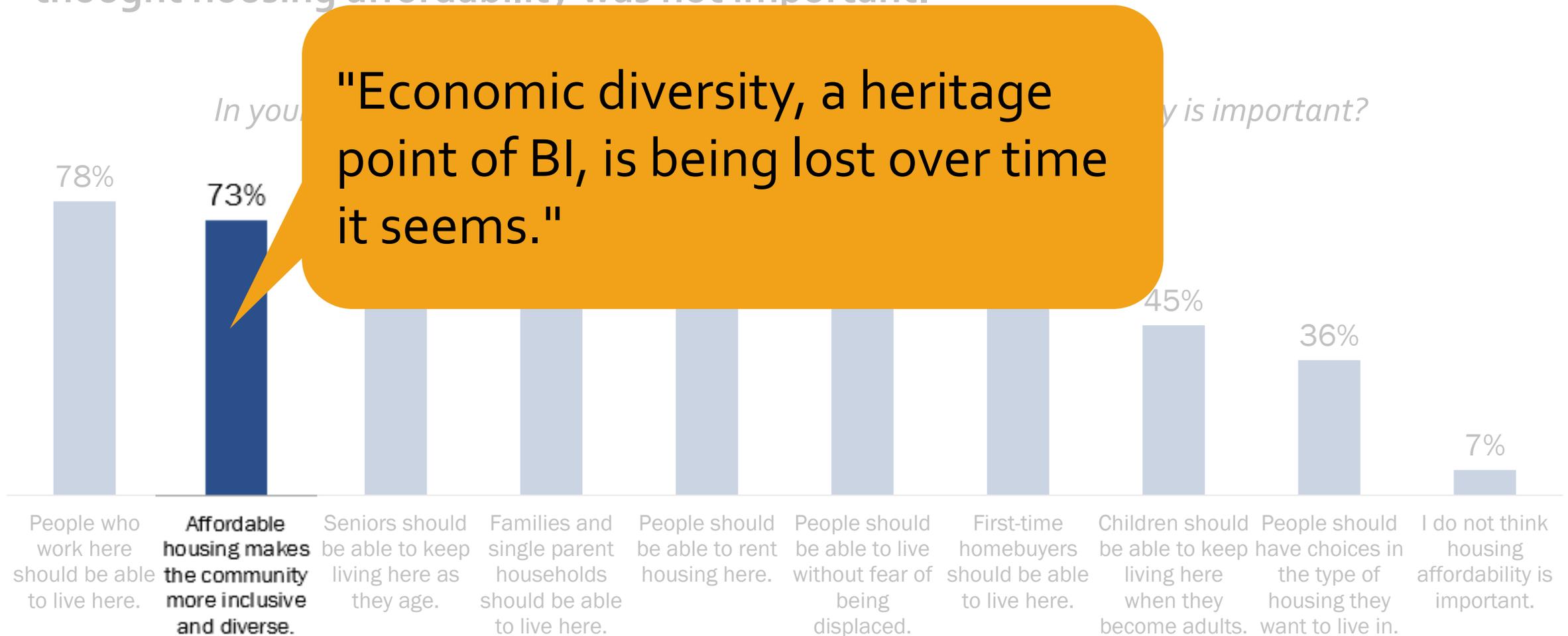
Most respondents said people who work on BI should be able to live here and that affordable housing is important. Very few respondents thought...

"Our businesses have trouble hiring if their staff can't live within a reasonable distance."

...affordability is important?



Most respondents said people who work on BI should be able to live here and that affordable housing makes the community more inclusive. Very few respondents thought housing affordability was not important.



"Economic diversity, a heritage point of BI, is being lost over time it seems."

Most respondents said people who work on BI should be able to live here and that affordable housing makes the community more inclusive. Very few respondents thought housing affordability

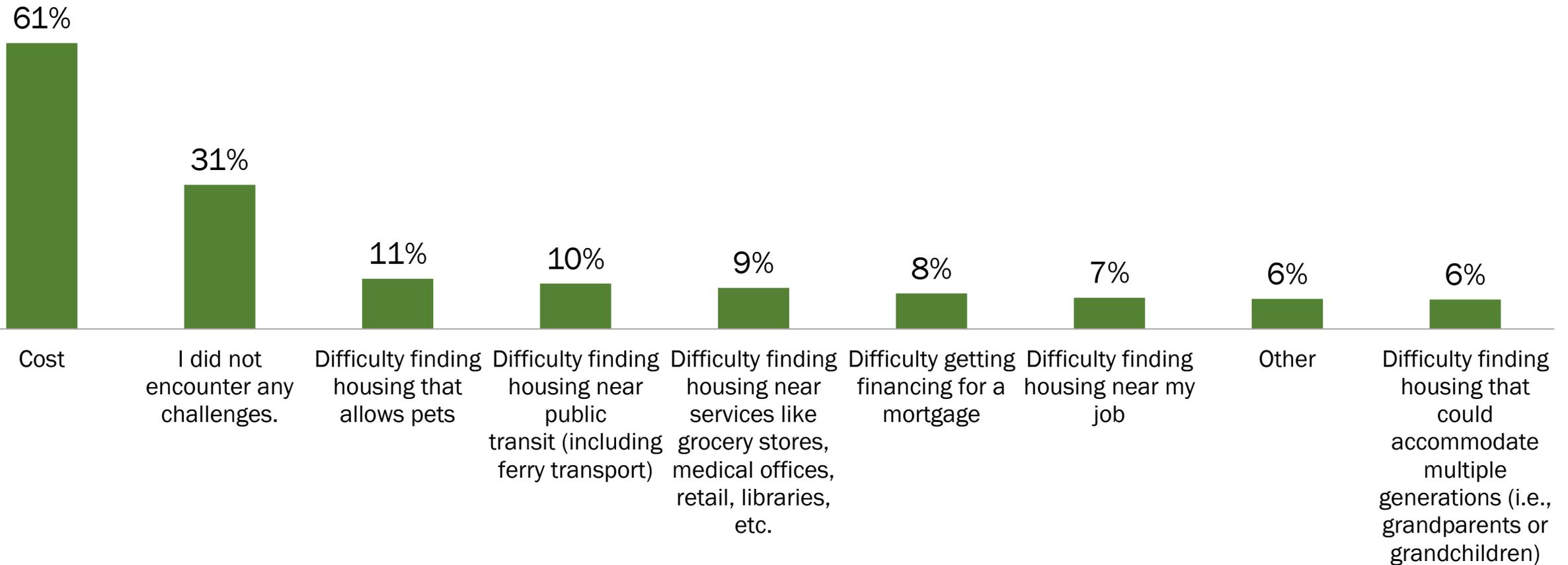
In your opinion, what housing affordability is important?

"In retirement we will be unable to maintain payments."

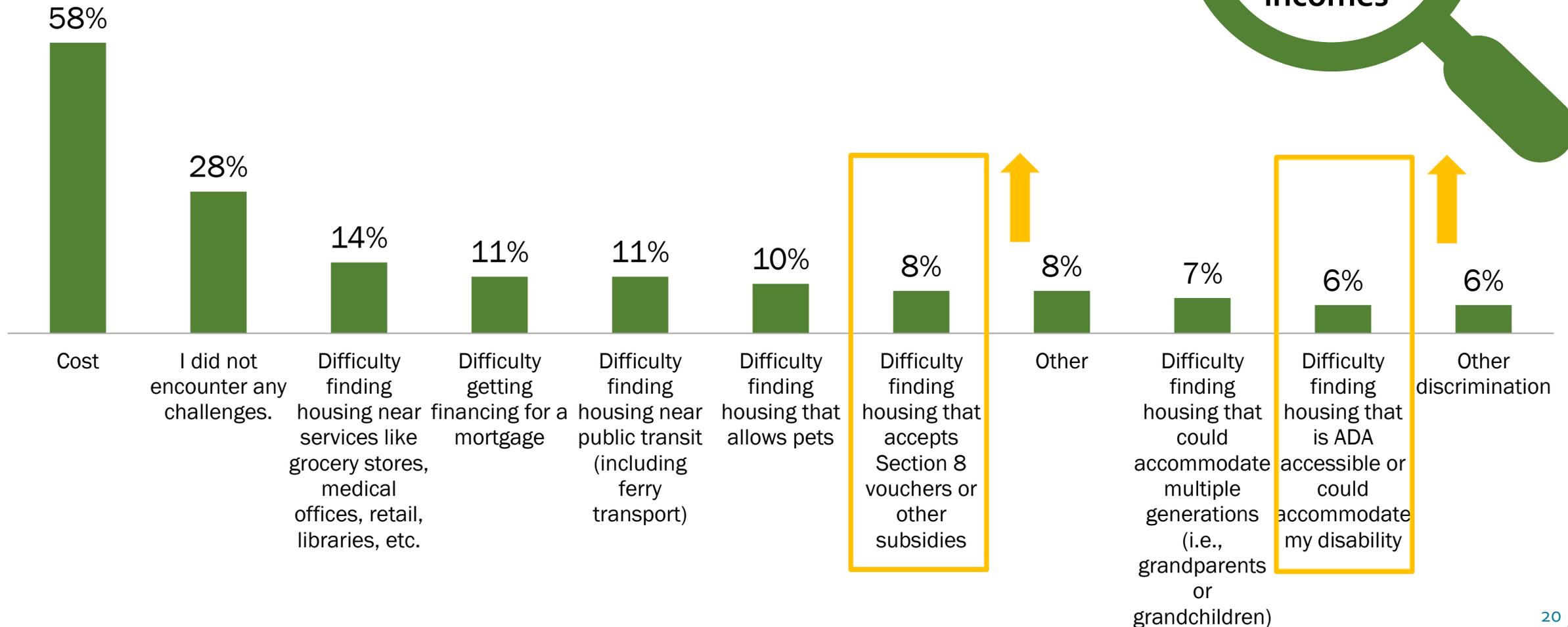
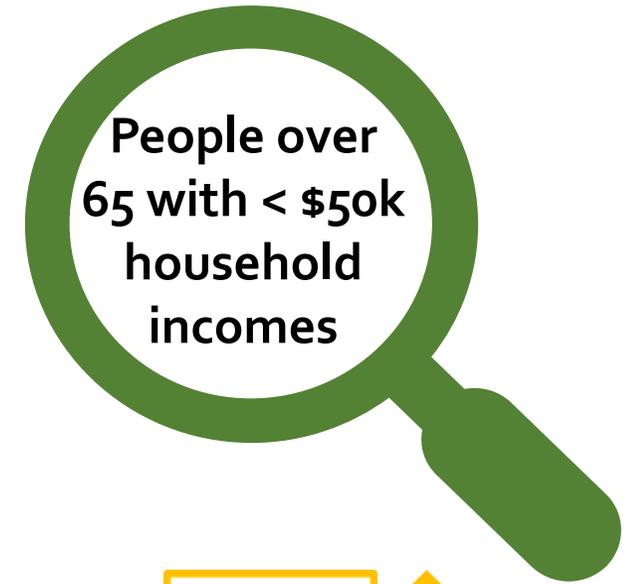


Overall, the respondents cited cost as being the top challenge for when they were looking for housing.

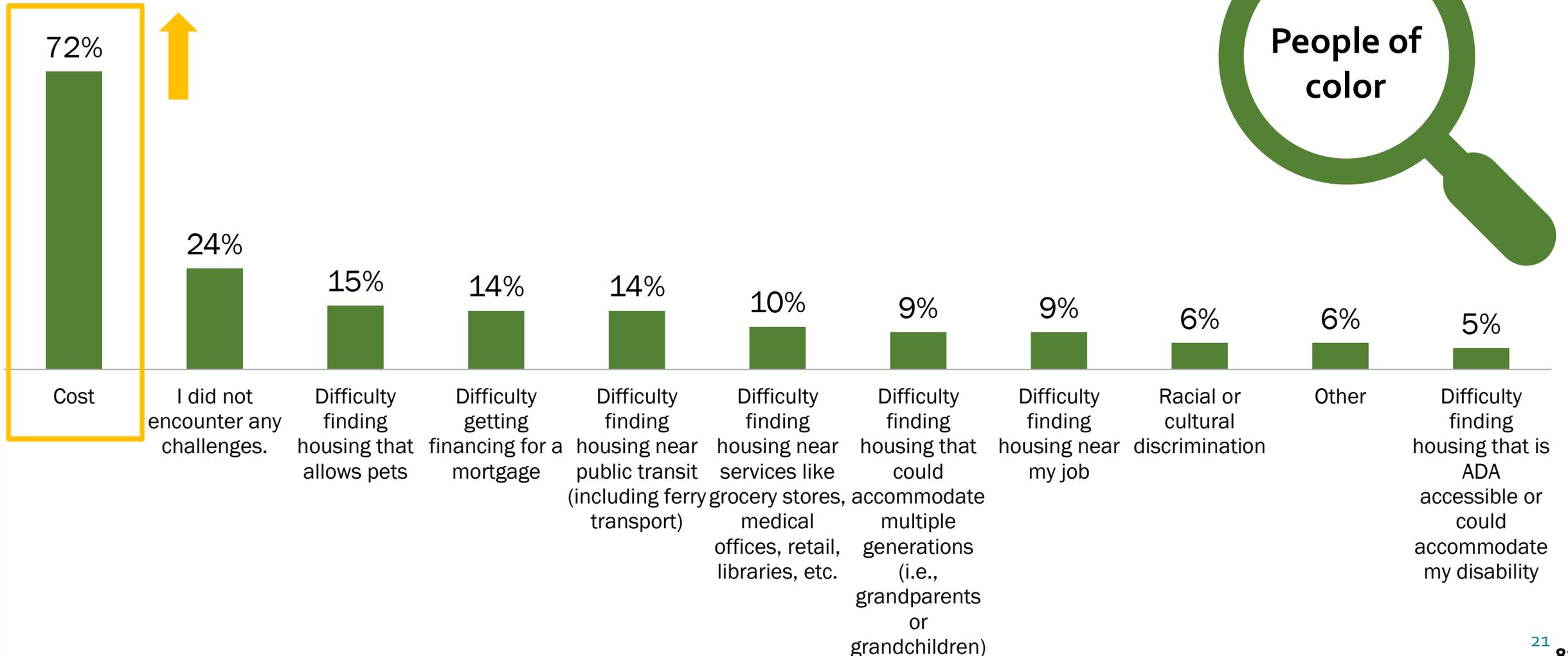
When you looked for housing on Bainbridge Island, did you encounter any of these challenges?



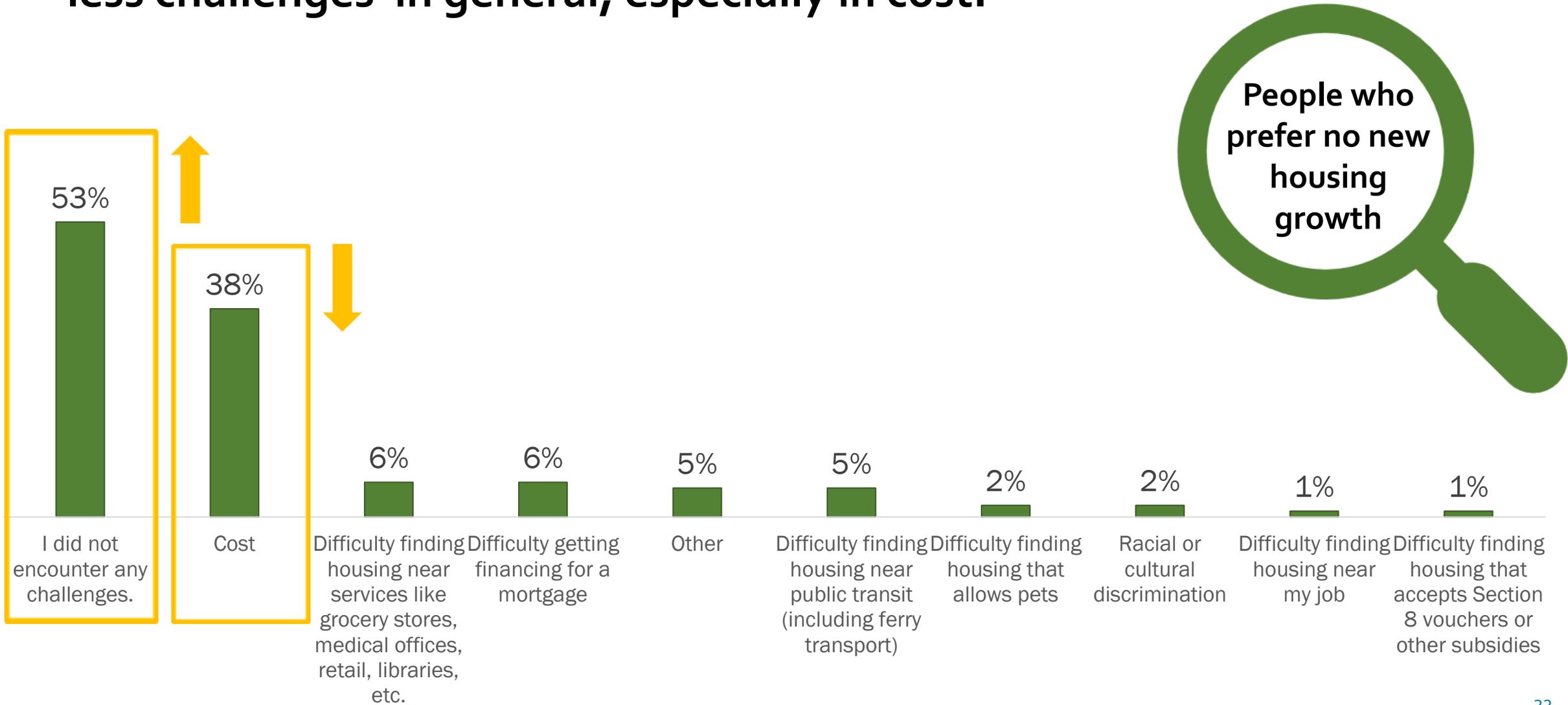
Retired, lower-income respondents encountered challenges finding housing that accepts Section 8 vouchers and subsidies or that has disability accommodations.



Compared to all respondents, people of color faced greater cost challenges when looking for housing



Respondents who prefer no new housing growth, encountered less challenges in general, especially in cost.



When you looked for housing on Bainbridge Island, did you encounter any of these challenges?

“I will not be able to stay sane raising kids in such a small space and won't be able to afford a bigger space within my community.”

“I am unable to buy a house despite having a two-income household and saving up because prices are too high for a first-time homebuyer.”

“I either made too little to afford housing options I found, OR I made too much to qualify for low-income housing.”



Workforce Commuting to Bainbridge

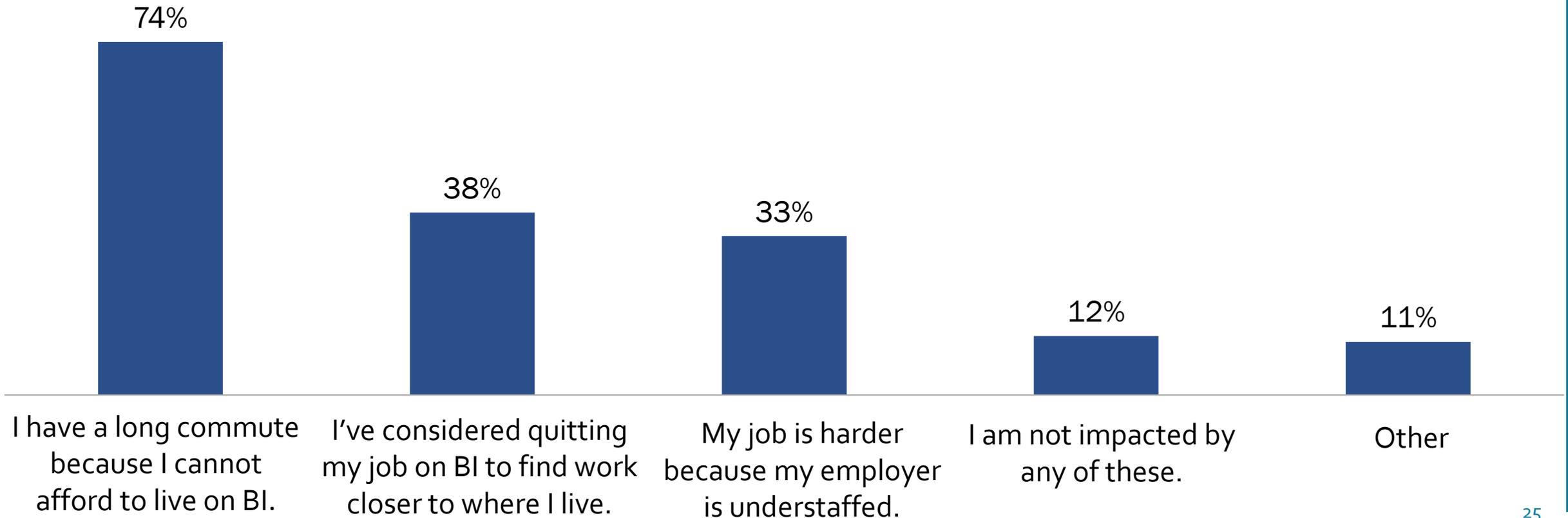
64 of the 81 respondents (79%) who work on Bainbridge but don't live there shared they would live on Bainbridge if they could afford it.



Source: ShareAlike 3.0 Unported Creative Commons

88% of respondents who work but do not live on BI indicated that housing has impacted their ability to work on Bainbridge.

Respondents who work but do not live on Bainbridge: How does housing on Bainbridge Island affect your ability to work on Bainbridge Island?



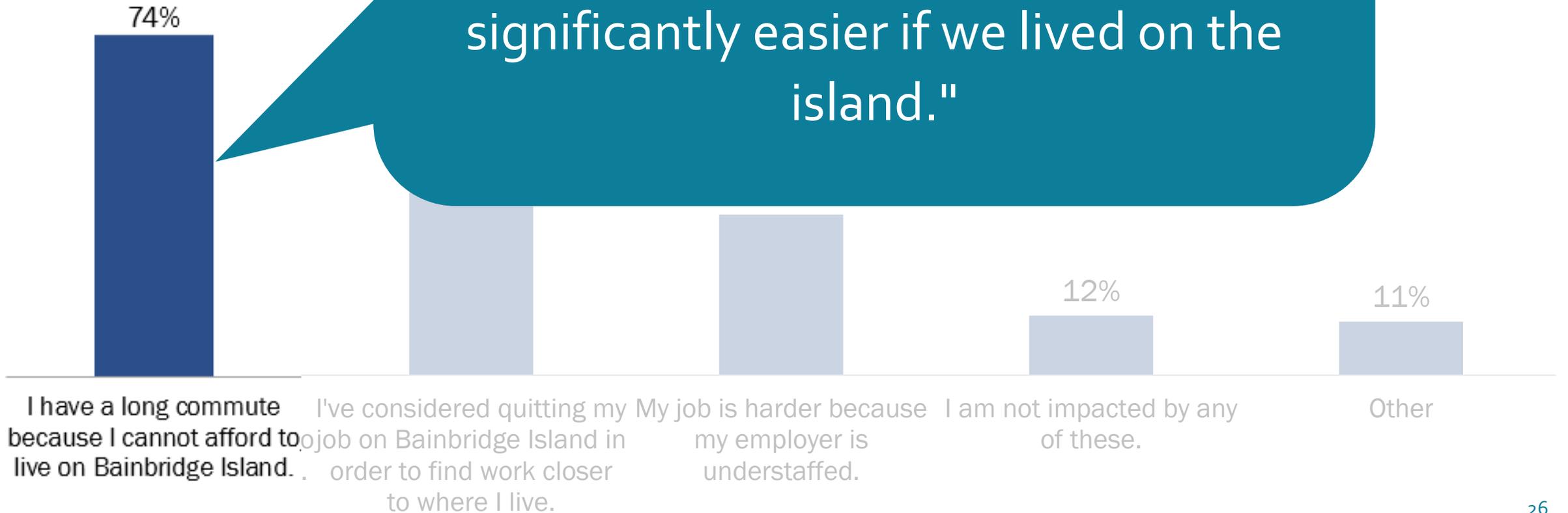
88% of respondents said that housing has impacted their lives.

and that

Respondents who work

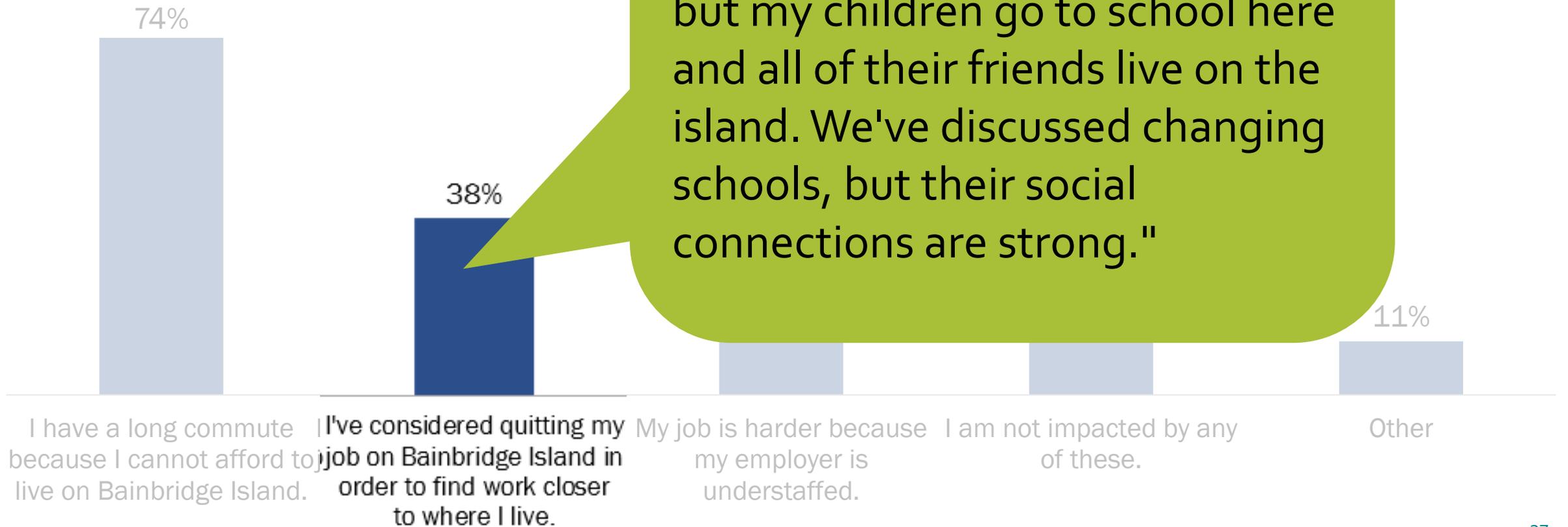
effect your

"This will be my ninth-year teaching for BISD. My husband works for [---] and commutes every day. Our lives would be significantly easier if we lived on the island."



88% of respondents who work but do not live on Bainbridge Island reported that housing has impacted their ability to find work.

Respondents who work but do not live on Bainbridge Island reported that housing has impacted their ability to find work.



"I've considered quitting my job on Bainbridge Island in order to find work closer to where I live, but my children go to school here and all of their friends live on the island. We've discussed changing schools, but their social connections are strong."

Workforce Commuting to Bainbridge

"I have an hour commute because I can't afford to live near my work, even with making 6 figures."

"Because I commute so far from my work, I don't have time to be socially active or to volunteer any longer... I am losing my friends and connection to a community which I have volunteered in for over 20 years."



"I am not able to live in the community where I work and have most of my local friendships -- I work caring for the community as a medical professional yet am not able to access housing in the community that I am deeply engaged with and care for."

Economically Displaced Residents

- 4% percent of respondents (or 34 persons) said they used to live on BI but had to move because they could not afford their housing.
- Among these respondents, around 82% work for pay at a job physically located on BI.



Economically Displaced Residents

"I lived on BI for over 20 years and have spent countless hours volunteering & serving on boards to build a strong community. I work here full-time, and it is so disappointing that now that I am divorced and, on a budget, this community no longer wants me here - no accommodations for those with limited income."



Source: ShareAlike 4.0 International

Displaced Residents: Themes from Survey Comments

Commute

Longer commute means more traffic, fuel, and time away from family; some spend over 3 hours commuting

Connections

Social connections are strong, making it difficult for people to move off island because people's lives are here

Cost

During the pandemic, rent prices significantly increased (30%+) and outbidding for homes increased

Changes

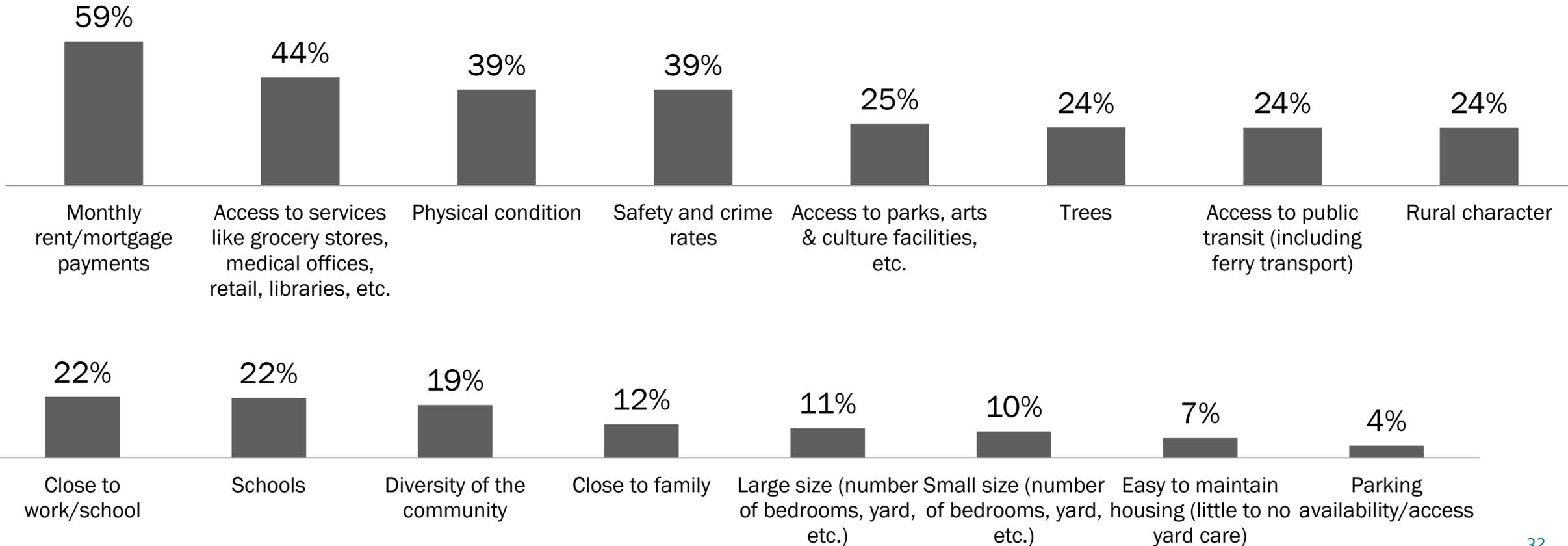
Finding housing after changing family situations (i.e., divorce, death, job loss) is nearly impossible

Community

People who dedicated their lives to the community should not be displaced once they age or can't afford housing

59% of all respondents indicated that monthly rent/mortgage payments was an important factor, followed by access to services, physical condition, and safety/crime rates.

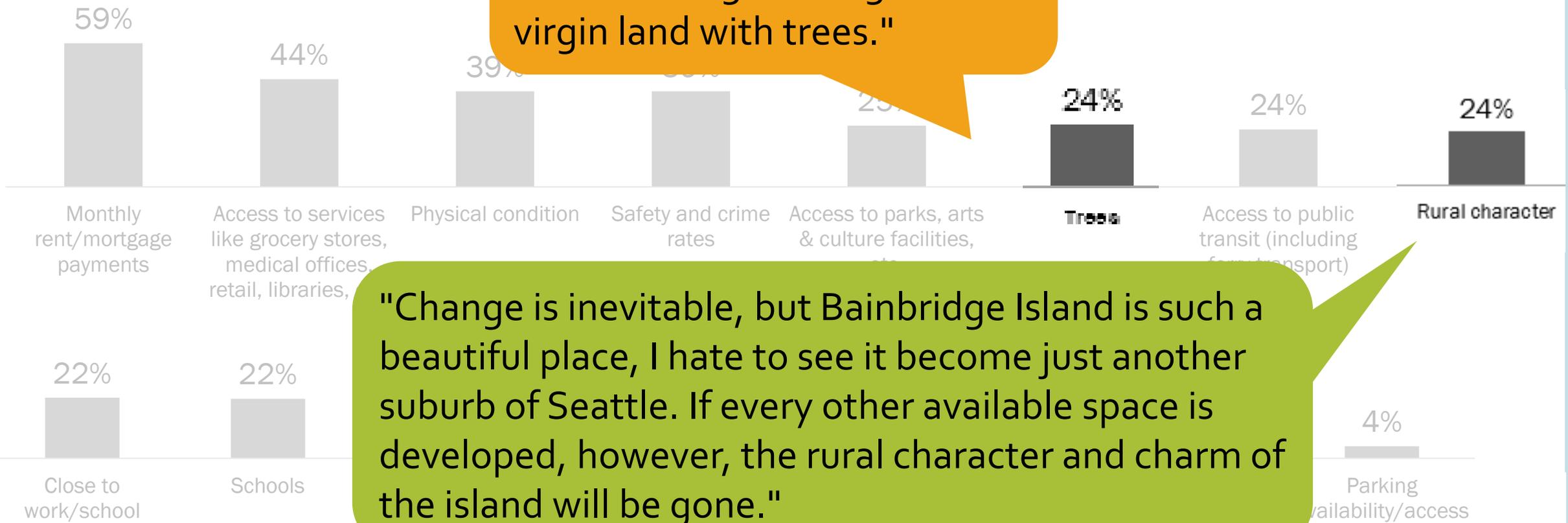
*When you choose a place to live, which of these factors are most important to you?
Choose up to 4 factors.*



59% of all respondents indicated that monthly rent/mortgage payments was an important factor, followed by access to services, physical condition, and safety/crime rates

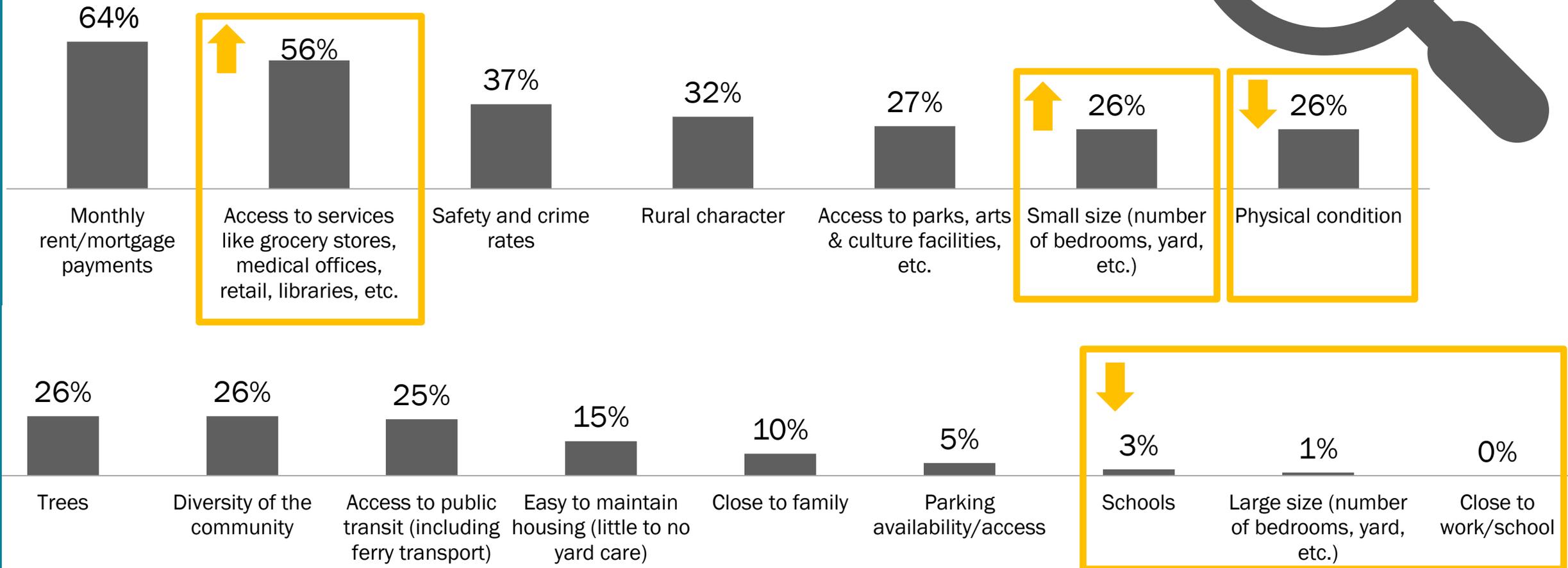
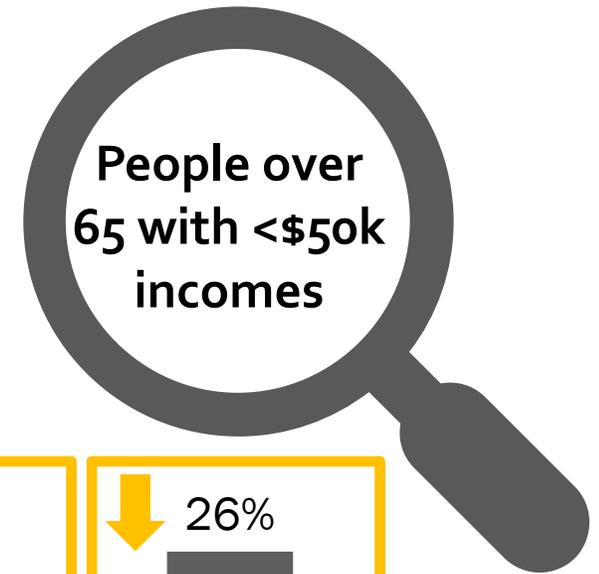
When you choose a place to live, what is most important to you?

"I'm concerned about environmental destruction from building housing on virgin land with trees."

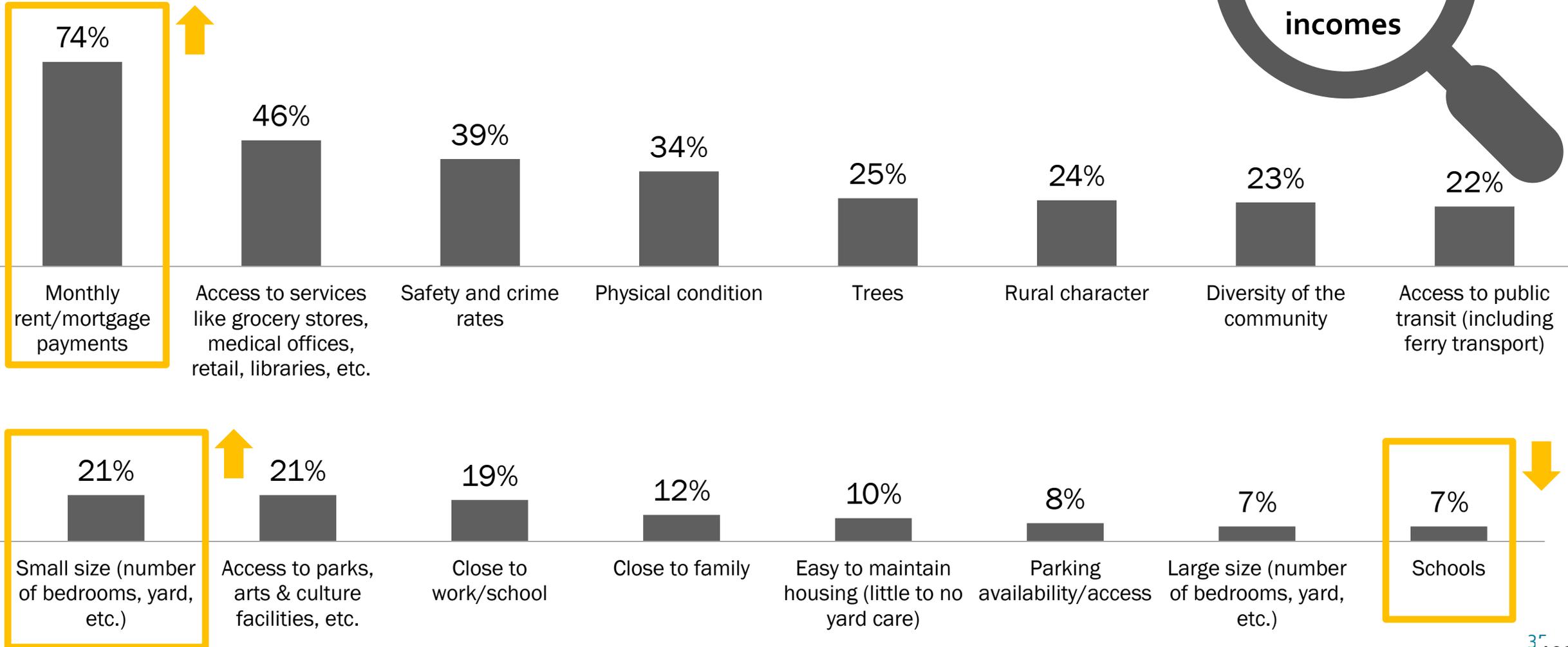
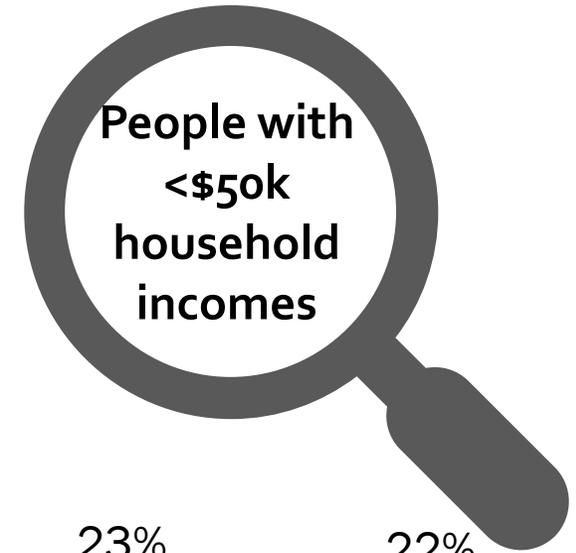


"Change is inevitable, but Bainbridge Island is such a beautiful place, I hate to see it become just another suburb of Seattle. If every other available space is developed, however, the rural character and charm of the island will be gone."

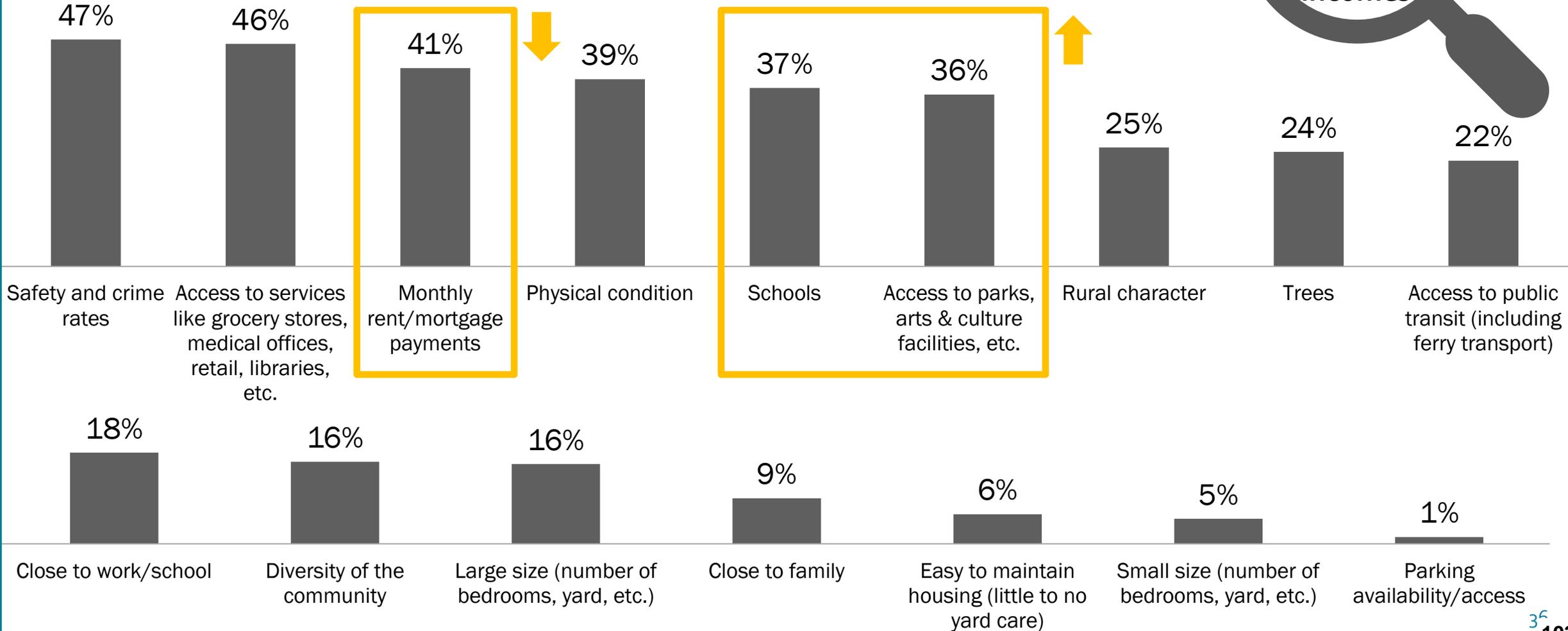
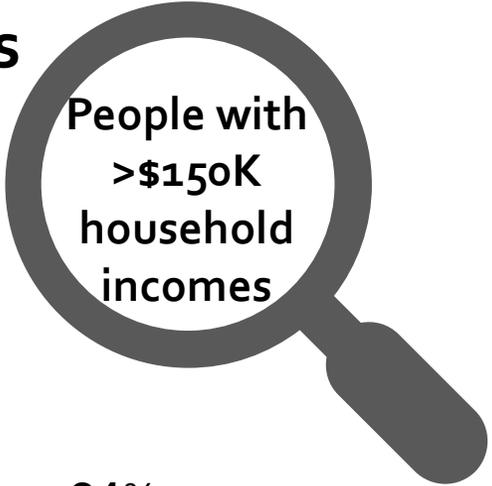
Compared to all respondents, lower-income respondents over 65 found access to services and smaller size important, and fewer found physical condition, schools, large size, and close to work/school more important.



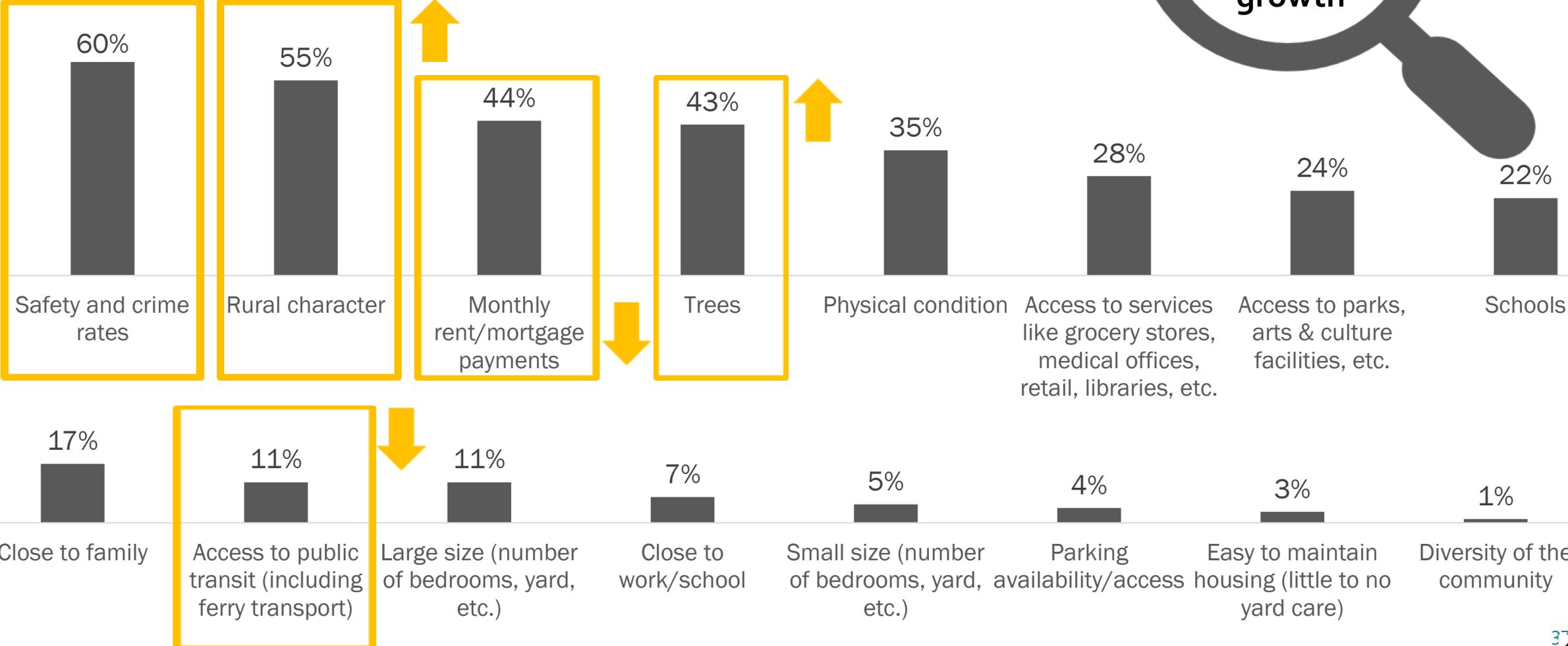
Compared to all respondents, lower-income respondents found monthly rent/mortgage payments and small size important, and fewer found schools more important.



Compared to all respondents, fewer higher-income respondents found monthly rent/mortgage payments important, and more found school and access to parks important.



Respondents who prefer no new housing growth, found safety and crime rates, trees, and rural character more important when choosing housing, while monthly rent/mortgage is less important.





Single-family Home



Cottage Housing



Tiny House/ADU

What types of housing, if any, would you like to see more of on Bainbridge Island?



Duplex



Row House



Zero Lot Line



Liveaboard Units



Garden Apartment



Mixed-use, Mid-rise



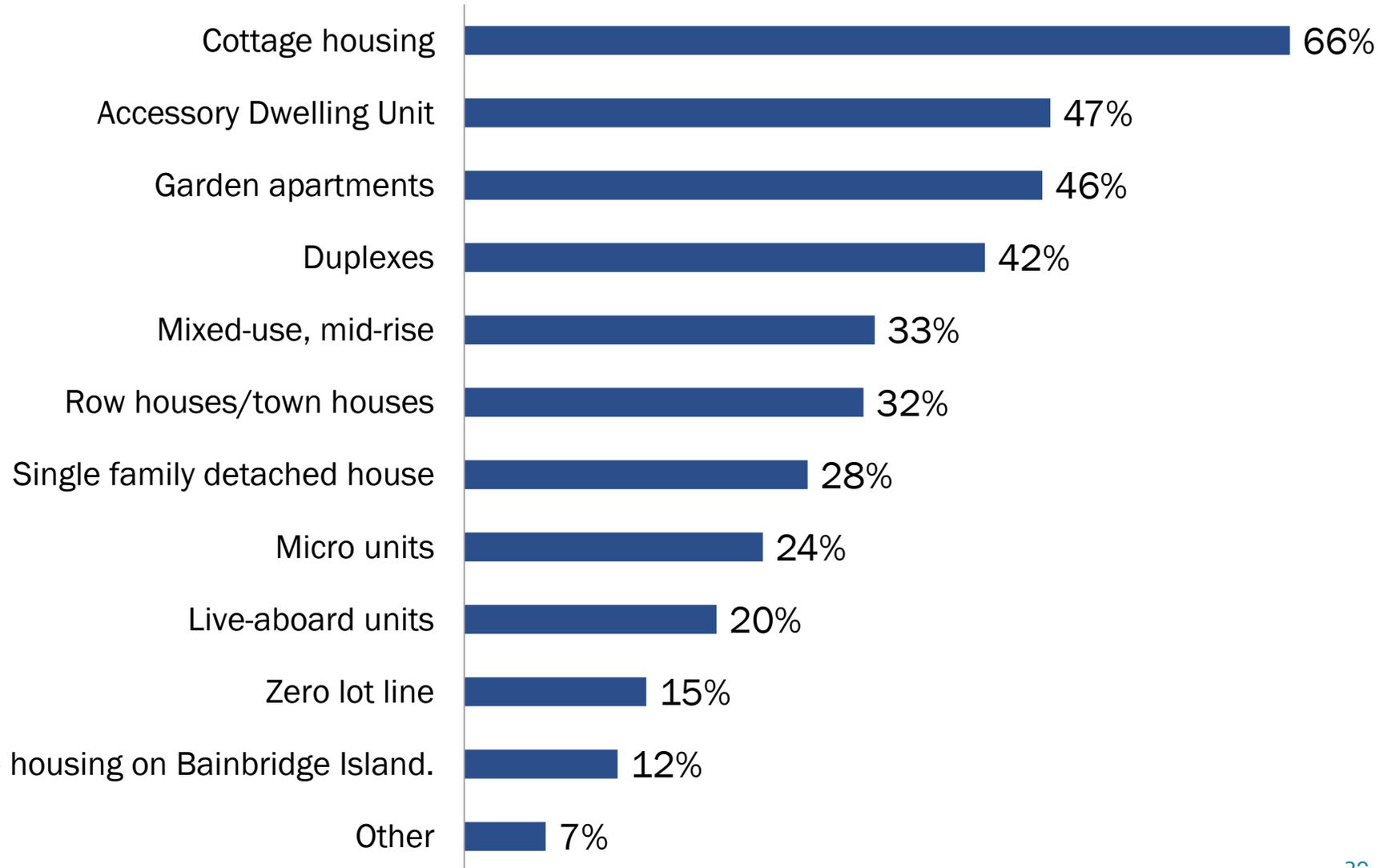
Micro Units

I don't want to see any more housing

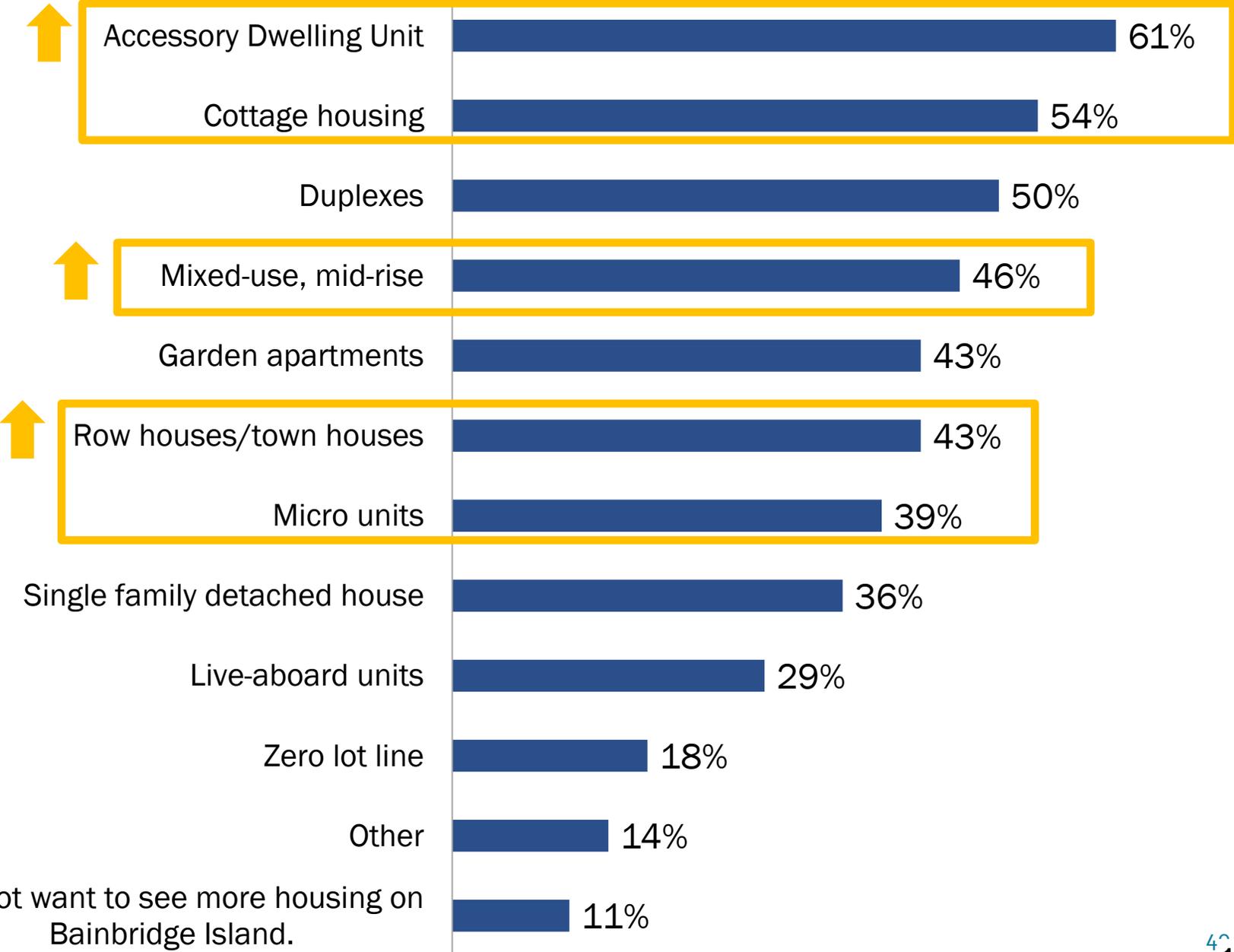
Other

Among all respondents, cottage housing, ADUs, garden apartments, and duplexes were the most preferred housing types.

What types of housing, if any, would you like to see more of on Bainbridge Island?



Compared to all respondents, more lower-income respondents with children at home selected ADUs, cottage housing, mixed-use mid-rise, town houses, and micro units.



EMPLOYER SURVEY

Employer Survey Details

- **Purpose:** Collect the experiences and opinions of Bainbridge employers
- **Timing:** Open from August 5, 2022 – October 3, 2022 (two months)
- **Results:** 171 total responses

Employer Survey Promotion

City of Bainbridge Island Channels:

- City's [Engage Bainbridge](#) website
- City's Facebook
- Press release
- Email blast to registered businesses

Toolkit for stakeholders and community-based organizations to distribute within their networks:

- Chamber of Commerce
- Downtown Association
- Friends of the Farms
- Peacock Family Services

Employer Survey: Key Themes

Long Commutes

Many employees cannot afford to live on Bainbridge and need to commute

Recruitment and Retention

Many employers have difficulty recruiting, hiring, and retaining staff

Affordable Housing

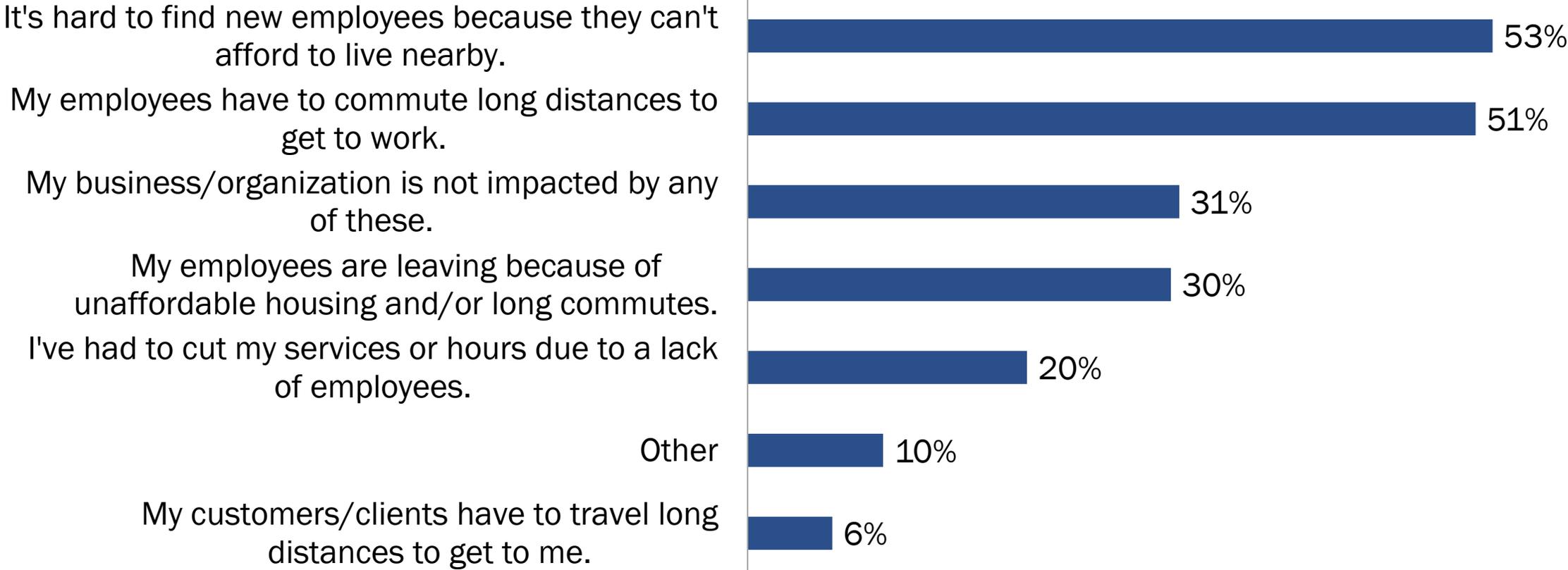
Bainbridge's workforce would benefit from more affordable housing and types of housing

Regulations

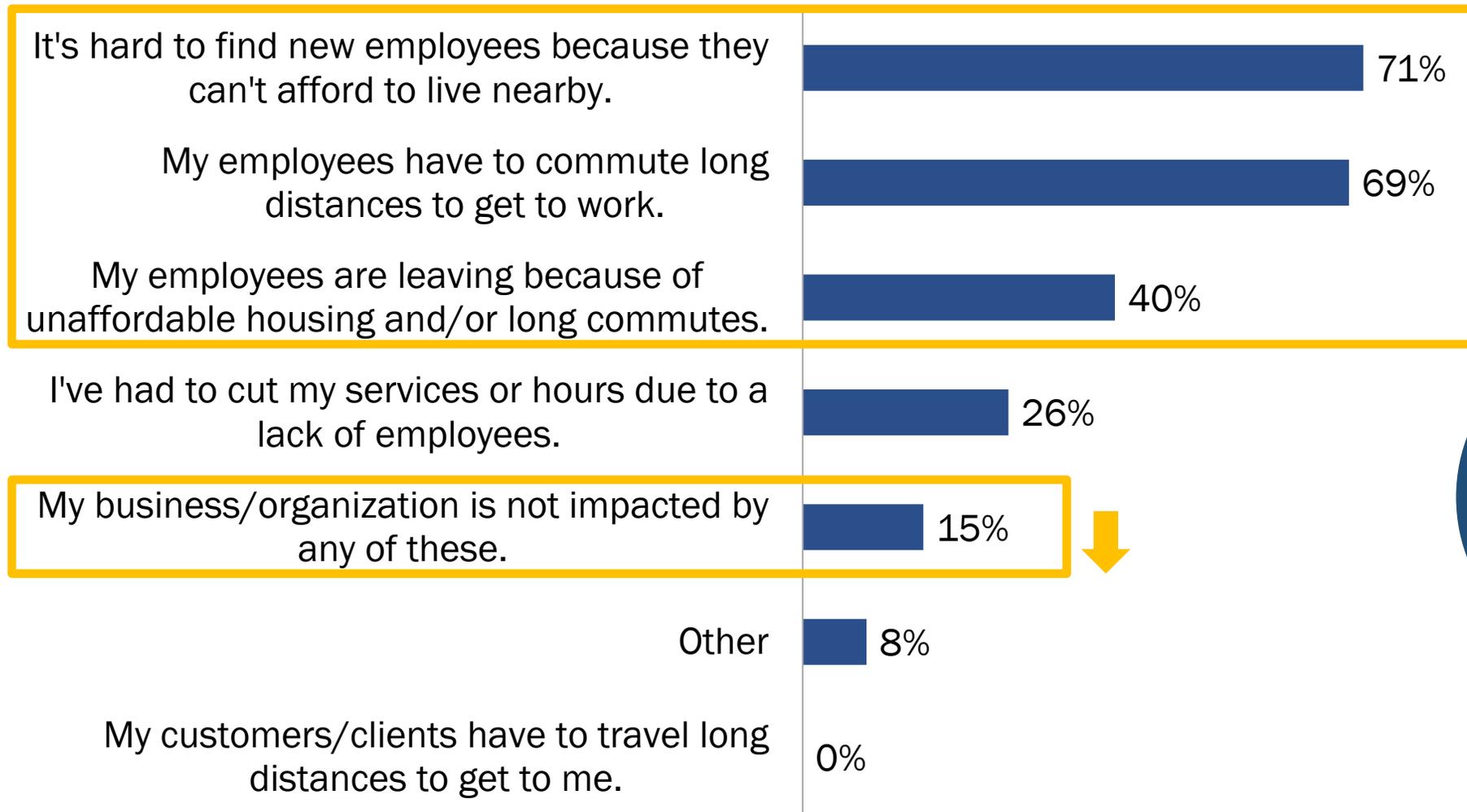
City regulations can make affordable housing difficult to build

Roughly half of respondents said recruitment and employee commutes are challenges; one third indicated that they aren't experiencing challenges

How does housing on Bainbridge Island affect your business/organization?



Compared to all respondents, more multi-employee businesses said they experience challenges related to housing.



How does housing on Bainbridge Island affect your business/organization?

“Trying to find employees that want to commute to Bainbridge from either Seattle, or the Peninsula is one of the biggest hurdles we have. Our business relies on people with prior experience. Auto repair is not a field you can just step into, it takes several years of training to become efficient.”

“My employees travel from Bremerton, Poulsbo and as far away as Jefferson County. I have no employees who live on Bainbridge.”

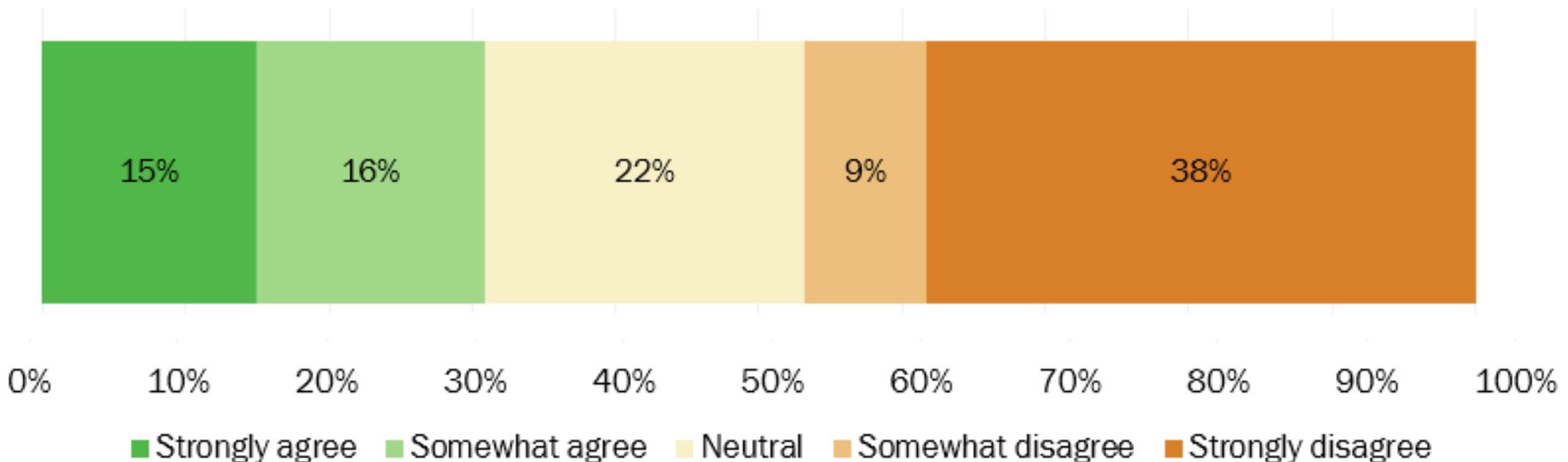


“Caregivers often have to come from off Island but quit due to transportation costs which they often pay themselves.”

Among employers with >1 employee, 31% agreed that housing issues have made them consider moving their business, while 45% disagreed

How strongly do you agree with this statement?

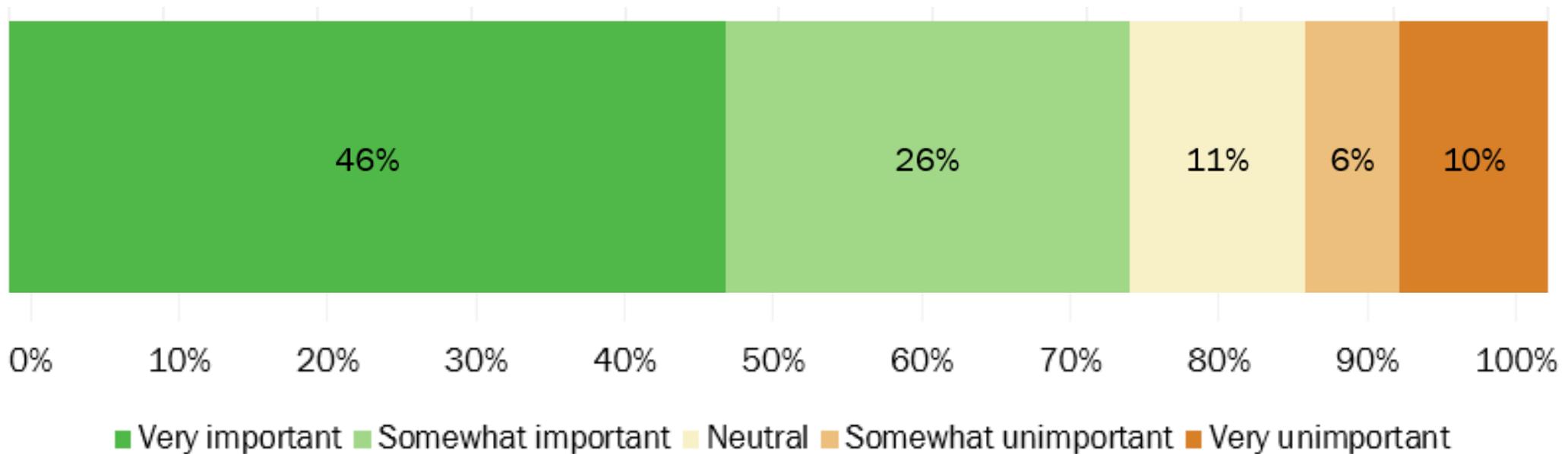
The availability of affordable housing on Bainbridge Island has made me consider moving my business/organization elsewhere or closing my business/organization.



Data note: Twenty "Not applicable (e.g., school district)" responses were recorded for this question. These are not included in the data display.

72% of employers with >1 employees said affordable housing is important to their business/organization

Compared to other priorities facing your business/organization, how would you rate the importance of the availability of affordable housing on Bainbridge Island?



The availability of affordable housing on Bainbridge Island has made me consider moving my business/organization elsewhere or closing my business/organization.

“We are considering moving our business off island so that we can more easily find employees.

Our manufacturing employees cannot afford to live here on island.”



“As the owners of our business, we cannot afford to live on the island, we had to move onto our boat to be able to afford to bring our business to Bainbridge Island. Otherwise, we move it to Port Townsend or Anacortes.”

We Go to You Meetings

- Bainbridge Conservation Coalition
 - + Recommendations Report
- Alliance of Childcare Providers
- Interfaith Council
- Housing Resources Bainbridge Affordable Housing Stakeholder Group
- Bainbridge Island Senior Center



Bainbridge Conservation Coalition

Themes from WGTY Meetings

Workers

It is difficult to hire workers here due to the lack of affordable housing, from service workers, to pastors, to teachers, to caregivers

Young People

There are few young families and young living on the Island, affecting the workforce and civic/religious life

Environment

Growth should be environmentally sustainable and adhere to the conservation goals in the City's Comprehensive Plan.

Diversity

The lack of affordable housing makes the community less diverse from an income and race perspective

Seniors

Seniors after they retire have trouble remaining on the Island due to the cost of housing and living

Regulations

Regulations and zoning can stand in the way of building more housing

Themes from WGTY Meetings

Workers

It is difficult to hire workers here due to the lack of affordable housing, from service workers, to pastors, to teachers, to caregivers

Young People

There are few young families and young living on the Island, affecting the workforce

"I'd like to see young families, and grandkids starting families being able to afford living on BI. My grandkids visit us and love the island. But some of them would like to move here, if they could afford it."

Environment

Growth and conservation

Diversity

The lack of income diversity in the community

Seniors

Seniors after they retire have trouble remaining on the Island due to the cost of housing and living

Regulations

Regulations and zoning can stand in the way of building more housing

Themes from WGTY Meetings

Workers

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Seniors

Seniors after they retire have trouble remaining on the Island due to
the cost of housing and living

Regulations

Regulations and zoning can stand in the way of building more housing

"Focus new housing in Winslow near the Island's only high-capacity transit center...it spares the majority of the Island from more dense development, resulting in less environmental impacts."

"The words, "housing crisis", are all too often used to preempt consideration of impacts to our climate and environment."

Themes from WGTY Meetings

Workers

It is difficult to hire workers here due to the lack of affordable housing, from service workers, to pastors, to teachers, to caregivers

Young People

There are few young families and young living on the Island, affecting the workforce and civic/religious life

Environment

Growth should be environmentally sustainable and adhere to the conservation goals in the City's Comprehensive Plan.

Diversity

The lack of affordable housing makes the community less diverse (income, race, ethnicity, etc.) and less vibrant. A diverse community

Seniors

Seniors are being priced out of the Island due to the cost of housing

Regulations

Regulations and zoning can stand in the way of building more housing

"A robust community with all kinds of people allows us to get new ideas, grow, and thrive."

Key Informant Interviews

City of Bainbridge Island Committees

- Bainbridge Climate Change Advisory Committee
- Bainbridge Design Review Board
- Bainbridge Race Equity Advisory Committee
- Bainbridge Planning Commission

Nonprofit Organizations

- Helpline House
- Housing Resources Bainbridge

Public Sector Leaders

- Fire Department Chief Hank Teran
- Bainbridge Human Resources Kate Brown
- Bainbridge Public School District Superintendent Peter Bang-Knudsen
- Police Department Chief Joe Clark

Themes from Key Informant Interviews

Workforce

Bainbridge employers have lost many employees including volunteers due to housing issues

Public Employees

Public sector employees need affordable housing so they can live in the community they serve, if they choose to. The amount of public sector employees that live on island is decreasing

Enrollment

Student enrollment has decreased significantly which decreases school district funding and could result in cuts to programs

Exclusivity

Missing middle and low-income housing perpetuates an exclusive and homogeneous community

Change

Bainbridge can grow responsibly and prioritize development around community fabric and transportation needs

Quotes from Key Informant Interviews



I've hired principals and others who make good salaries but can't find a house for their family, let alone folks on the lower end of the income continuum [...] There is a strong correlation between the small amount of new development and lack of housing and therefore decline in enrollment.

- Peter Bang-Knudsen, BISD Superintendent



We try to make great working conditions internally, but what I hear from a number of people who leave is that they love working on Bainbridge, but the commute is difficult on them and their families [...] We talk about the diversity of the community, but a number of people with diverse backgrounds can't afford to live here.

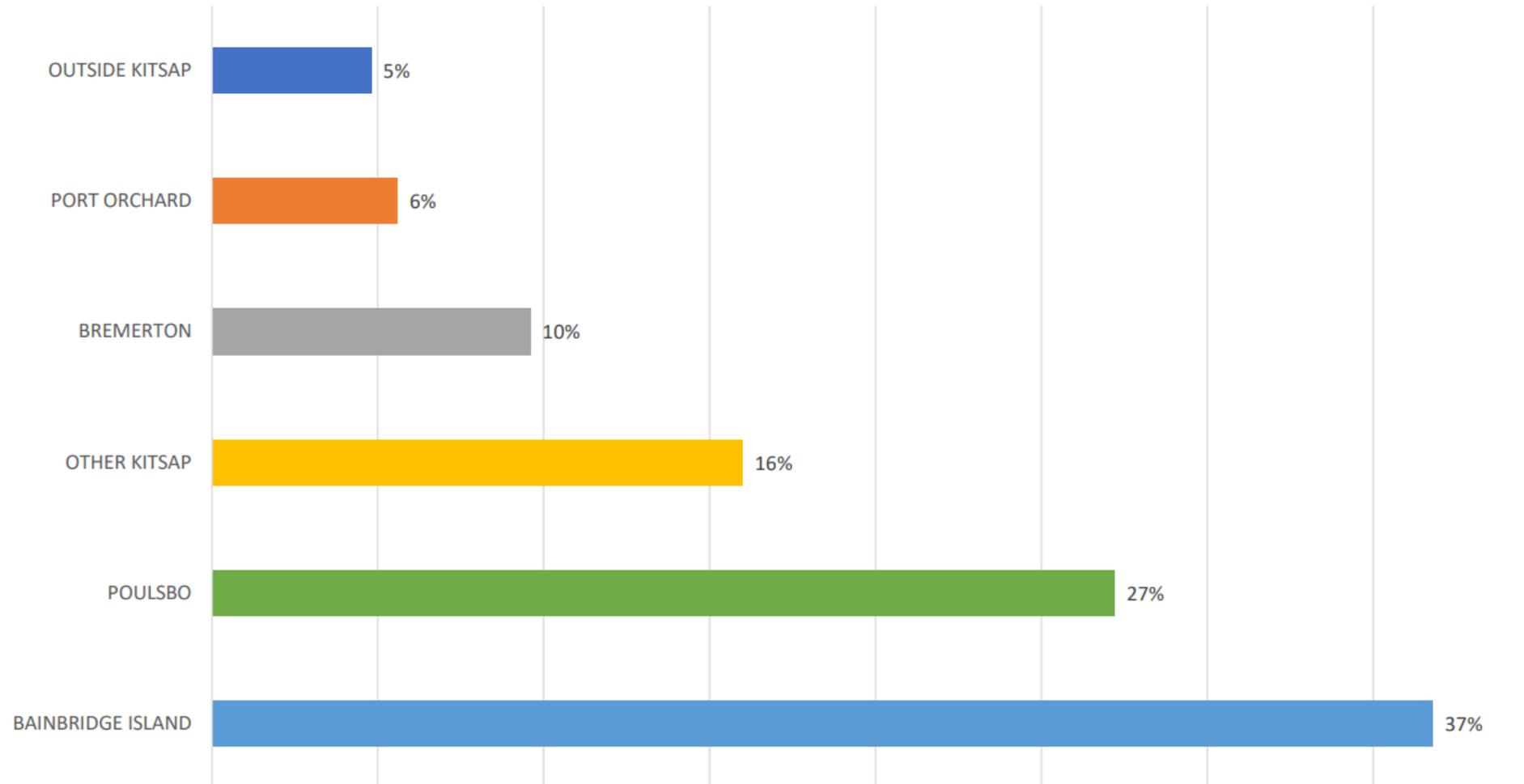
- Hank Teran, Fire Chief



Availability of housing that meets [middle income] needs and price range doesn't exist here. This is especially important for my officer's price point and their ability to live here in the community.

- Joe Clark, Police Chief

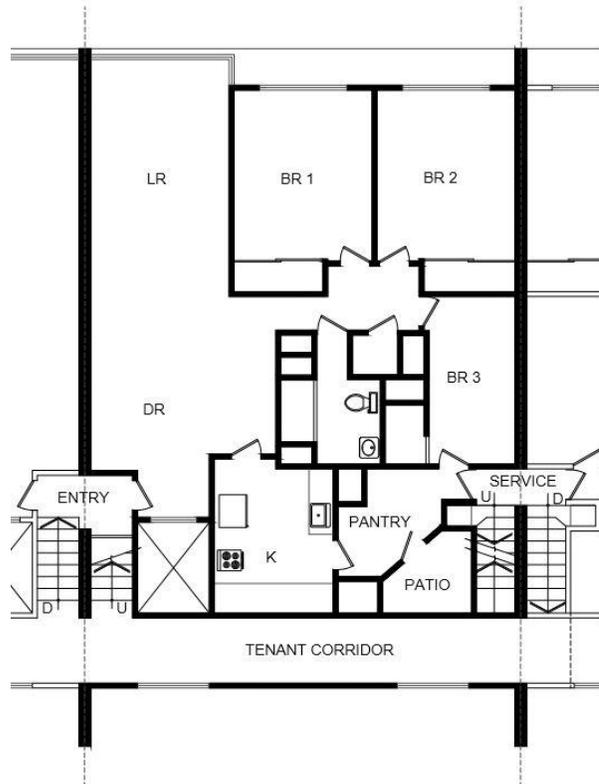
City Employee Residence (2022)



Focus Groups

Developers: 5 participants

Employers/Businesses: 9 participants



Themes from Developer Focus Group

Incentives

Add and improve the following tools and programs: density bonuses for affordable housing, purchasing Floor Area Ratio, Housing Design Demonstration Project (HDDP), Multifamily property tax exemption, etc.

Voluntary Programs

Voluntary programs are preferable over mandatory programs from a bank financing perspective

Parking

Parking requirements are a barrier to building small units

Density

Bainbridge should allow and incentivize more density in core areas. Typically, there is community pushback about increasing density

Themes from Developer Focus Group

Incentives

Add and improve the following tools and programs: density bonuses for affordable housing, purchasing Floor Area Ratio, Housing Design Demonstration, property tax exemption, etc.

Voluntary Programs

Voluntary programs from a bank financing project

"Affordable housing still has to show a profit to get a loan. Most of our projects are mixed."

Parking

Parking requirements for small units.

Density

Bainbridge should allow and incentivize more density in core areas. Typically, there is community pushback about increasing density.

Themes from Developer Focus Group

Incentives

Add and improve the following tools and programs: density bonuses for affordable housing, purchasing Floor Area Ratio, Housing Design Demonstration Project (HDDP), Multifamily property tax exemption, etc.

Voluntary Programs

Voluntary financing programs from a bank

Parking

Parking requirements for units.

Density

Bainbridge should allow and incentivize more density in core areas. Typically, there is community pushback about increasing density.

"The fact that [the City] stopped purchase of bonus FAR is a very big impact on open market housing."

Themes from Employer Focus Groups

Workforce Housing for All

Employees across the income spectrum – from service workers to well-paid professionals – have trouble finding housing

Resiliency Challenges

Many frontline workers in emergency management and healthcare live off Bainbridge Island, creating resiliency challenges

Commuters

People commuting onto Bainbridge increases traffic

Multifamily & Rentals

There needs to be more multi-family housing and rental options

Recruitment & Retention

Employers have trouble recruiting and retaining staff. Some have considered moving their business elsewhere

Themes from Employer Focus Groups

Workforce Housing for All

Employees across the income spectrum – from service workers to well-paid professionals – have trouble finding housing

Resiliency Challenges

Many in Bainbridge have lost jobs and are looking for work elsewhere

Commuters

People commuted long distances to work

Multifamily & Rentals

There needs to be more multi-family housing and rental options

Recruitment & Retention

Employers have trouble recruiting and retaining staff. Some have considered moving their business elsewhere.

"Bainbridge is on its way to becoming a labor desert"

Themes from Employer Focus Groups

Workforce
Housing for All

Employees across
paid profession

Resiliency
Challenges

Ma
Dan

Commuters

People commu

Multifamily &
Rentals

There needs to

Recruitment
& Retention

Employers have trou
considered moving their business elsewhere.

"Everyone who does frontline work commutes from far distances. Someone left after working here for three months because she was living in a place without running water on BI. It's become ludicrous, [that] even the highest-ranking person can't afford to live here."

Themes from Employer Focus Groups

Workforce Housing for All

Employees across the income spectrum – from service workers to well-paid professionals – have trouble finding housing

Resiliency Challenges

Many frontline workers in emergency management and healthcare live off Bainbridge Island, creating family and health challenges

Commuters

People commuting

Multifamily & Rentals

There needs to be

Recruitment & Retention

Employers have trouble recruiting and retention. Some have considered moving their business elsewhere.

"I only have 60 percent of the employees I need. I am just surviving. Only one employee lives on Bainbridge Island."

Quotes from Employer Focus Groups

“Over the last decade, I've seen the situation get significantly expensive and have seen employees moving to Downtown Seattle because it's cheaper lately. People are leaving Bainbridge for Seattle!”

“We've had no choice but to move an office in Seattle, because we couldn't find people here.”



Summary of Themes Across Engagement

Housing for All

Bainbridge needs more housing types that fit diverse needs and reduce cost barriers, especially rentals and other housing for moderate to middle income levels

Seniors

Many seniors are struggling to stay in their homes after they retire due to property taxes and difficulty downsizing on the Island

Community

Bainbridge is losing its sense of being a multi-generational and diverse community with decreasing young families, young persons, and low-income households

Employers

Employee recruitment and retention is becoming increasingly challenging for employers due to the lack of affordable housing wanted by the workforce across nearly all income levels

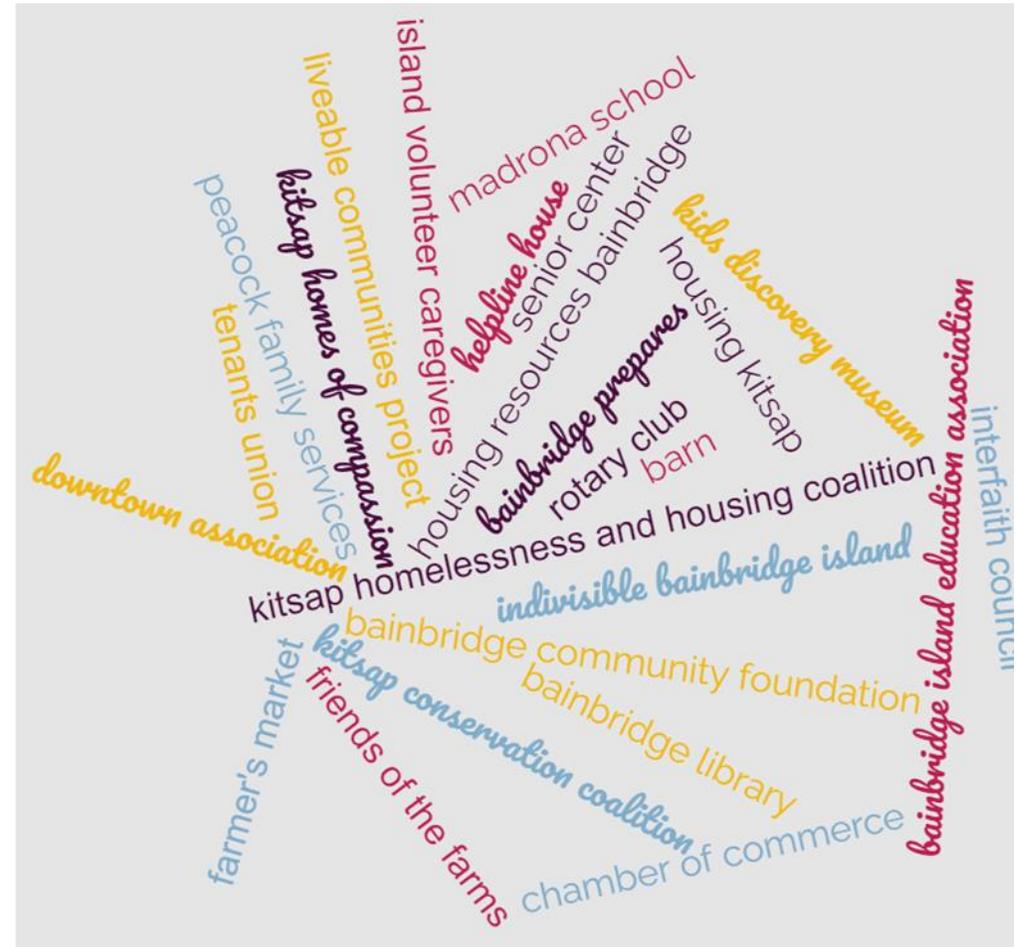
Regulations

The City needs to adjust policies/regulations to improve access to housing affordable to a broader diversity of people

Thank You!

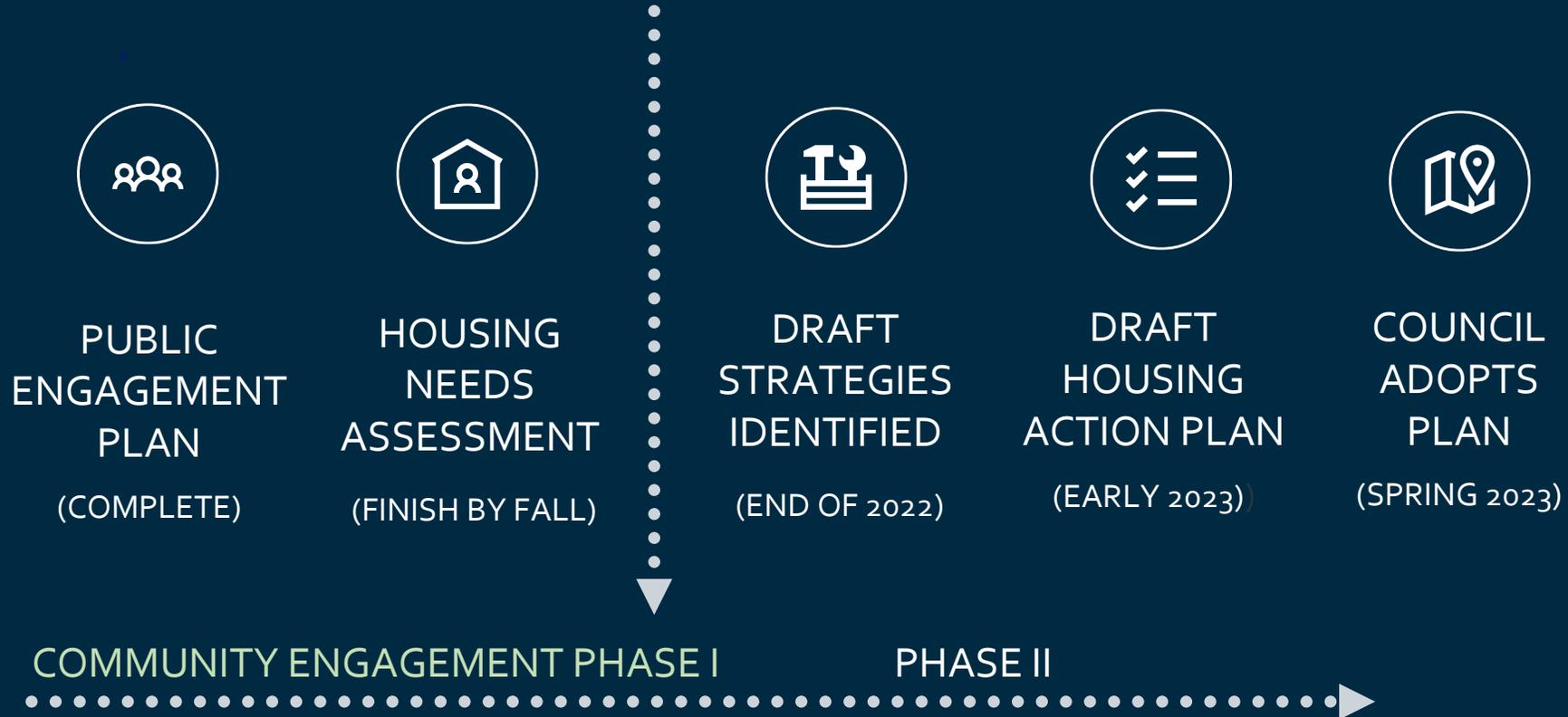
Thank you to all the people who...

- Shaped the public engagement strategy
- Filled out surveys and spread the word
- Hosted and participated in focus groups
- Hosted We Go to You meetings
- Participated in an interview
- Provided guidance along the way



Next Steps

We are here in the schedule



The housing needs assessment and engagement findings will help shape the Housing Action Plan, provide a balance of quantitative and qualitative information, and help the HAP to become more data-driven, community-informed, and supported.

APPENDIX

Key Themes

- [Themes from Engagement \(attached\)](#)

All Survey Responses

- [Survey Responses Spreadsheet \(link\)](#)
 - See tab 1 for General Survey results
 - See tab 2 for Employer Survey results

HOUSING ACTION PLAN ENGAGEMENT REPORT APPENDIX

Community Engagement Theme Library

This theme library contains the key themes from all community engagement from the Bainbridge Housing Action Plan project, including the community survey, employer survey, We Go to You Meetings, Developer Focus Group, Employer Focus Group, Key Informant Interviews, and Pre-kickoff interviews.

Two analysts performed qualitative analysis for all survey responses and meeting notes to mitigate potential bias. This peer review process also included a final review by the project manager to approve final identified themes and considerations.

A community engagement best practice is to avoid sharing feedback that is attributed to specific individuals in order to make participants more comfortable sharing their opinions. As such the themes below are not attributed to specific participants, but rather their organization or the source of engagement data.

Key Themes from Analyst 1

SURVEY

General Survey

- High property taxes displace residents
- Housing is a human right
- It's not a problem that some people can't afford to move to Bainbridge
- Bainbridge does not have enough available/vacant housing
- It's difficult to downsize or find a small home
- Prices are too high for first-time homebuyers
- Lack of affordable housing makes the community less diverse
- I or someone I know cannot live on Bainbridge because housing is too expensive
- It's difficult to find accessible housing for people with disabilities and seniors
- Workers can't afford to live on Bainbridge
- I or someone I know had to leave Bainbridge because housing became too expensive
- Bainbridge is becoming too dense
- Workers have to live elsewhere and commute long distances
- High housing cost means I have less money to spend on other needs
- I worked hard and saved to be able to move to Bainbridge
- I can only afford to live here because I purchased my home a long time ago
- I can only afford to live here because of my partner's salary and/or help from family
- Businesses are having a hard time hiring service workers
- New development is bad for the environment
- It takes a long time to find a home on Bainbridge
- Bainbridge needs more small homes
- Affordable housing should be good quality and have surrounding trees/vegetation
- Bainbridge has a lot of traffic
- I have to live far from my family because I or my family can't afford to live on Bainbridge
- Lack of affordable housing makes the community feel less welcoming
- Bainbridge should follow the comprehensive plan

Employer Survey

- Employees can't afford to live on the island
- Many employees and business owners live elsewhere and commute
- Bainbridge desperately needs more affordable housing
- Government regulations and fees make it hard to build affordable housing
- Bainbridge needs more housing types beyond single family homes
- Workers of all economic means should be able to find housing they can afford
- Vacation rentals and second homes decrease supply of affordable housing
- Young workers can't afford to live on the island
- Finding employees that are willing to commute is difficult
- High property taxes contribute to unaffordability
- Housing on Bainbridge has gotten less affordable recently

- Lack of affordable housing makes the community less diverse
- Workers can find affordable housing in neighboring communities
- Bainbridge should follow the current Comprehensive Plan and building codes
- Bainbridge should make zoning changes to allow more density

WE GO TO YOU MEETINGS

Alliance of Bainbridge Childcare Directors

- Affordable housing is important for a diverse community
- Lack of affordable housing makes it difficult to hire staff
- Most employees commute from neighboring areas
- It is difficult to find young people who want to work on Bainbridge

Bainbridge Conservation Coalition

- Bainbridge should follow the comprehensive plan
- Bainbridge's rural character should be preserved
- The HAP should include creative solutions
- The HAP should include build on previous/neighboring work
- The HAP should include careful analysis and thoughtful planning

Interfaith Council

- There are very few affordable rentals on Bainbridge
- Important workers like teachers, grocery workers, restaurant workers etc. can't afford to live on Bainbridge
- Bainbridge needs more diversity
- There are fewer kids and families at congregations
- People have different housing needs during different phases of life
- Bainbridge needs more types of housing
- Water management is an important consideration

Affordable Housing Stakeholders

- Affordable housing is important for a diverse community
- The public's perception of housing issues is not always aligned with reality
- Lack of affordable housing makes it difficult to find and retain employees
- Many workers have to commute from off island
- Community opposition to affordable housing projects is a major barrier to getting projects built
- Political leaders need to trust expert staff and organizations rather than over-legislating the details
- The HAP should be clear about the consequences of doing nothing

Senior Center

- It is important to have a diverse community
- People who work in emergency services can't afford to live here

- Cost of living (food, gas, medication) is very expensive here
- Seniors are being priced and/or taxed out of their homes
- Rentals on Bainbridge are expensive
- Farmworkers can't afford to live here long-term anymore
- People who provide in-home services (landscaping, cleaning, etc.) can't afford to live here
- A sense of community is very important
- Bainbridge's environment and green spaces are important to maintain

FOCUS GROUPS

Developers

- Useful tools for developers (purchase of FAR, TDR, HDGP) should be added/ expanded/ improved
- Some existing programs (TDR, FAR) are currently poorly structured
- Developers receive pushback from the community regarding density
- Ordinances requiring affordable units to be affordable in perpetuity prevent developers from being able to get financing
- Parking requirements are a barrier to building small units
- Voluntary programs with good incentives are preferable over mandatory inclusionary zoning
- Bainbridge should allow and incentivize more density in core areas (Winslow and ferry terminal district)
- Affordable housing projects need to be able to show a profit to get a loan
- The city must work closely with developers on the HAP

Employers

- Many employees can't afford to live on Bainbridge
- Employees have to live in other areas and commute to Bainbridge
- Bainbridge needs lower-cost small housing for young people and seniors looking to downsize
- More affordable housing would help businesses find employees
- Businesses are considering (or already have) moved off Bainbridge due to staffing issues
- Bainbridge needs a way to get people who are anti-growth to understand the problem
- The public transportation system needs to be expanded
- Many workers can't afford to live on Bainbridge
- Many workers who do live on the island have to live with their parents
- Lack of affordable housing causes traffic from workers commuting to Bainbridge
- Public transportation options on Bainbridge are inadequate
- People who grow up on Bainbridge leave in early adulthood
- Lack of affordable housing makes it difficult to hire employees
- Bainbridge does not have enough rental units
- The Bainbridge community is supportive of affordable housing in the abstract, but opposes specific projects
- Parking in Winslow is difficult
- COBI's land use code makes it difficult for developers to build housing

KEY INFORMANT INTERVIEWS

- Entry-level firefighters can't afford to live on Bainbridge
- Firefighters are leaving after a few years because they're frustrated with the long commute
- There is a lack of volunteer firefighters
- Bainbridge needs more rental units
- Bainbridge needs units set aside for public sector employees
- Homes must be built in a way that's accessible for firefighters and EMS
- Bainbridge should require sprinklers in homes
- Areas of new housing need infrastructure for fire hydrants
- It's difficult to have a diverse workforce because of the lack of affordable housing
- Lack of affordable housing hinders the City's ability to attract employees
- Bainbridge has a low inventory of homes to buy or rent
- It's important to have public sector employees living on Bainbridge to help in an emergency
- Businesses are struggling to hire staff
- Without affordable housing, Bainbridge will be an exclusive community
- Many employees can't find housing they can afford
- Student enrollment has decreased significantly
- Lower enrollment decreases the district's funding
- If the trends of enrollment decline continue, the district will have to cut programs
- Housing and environmental issues are related, not opposed
- Bainbridge needs more diversity of housing types to meet different needs
- The City could partner with the school district to use land for creative affordable housing ideas
- The community needs to realize that Bainbridge can change and evolve in a healthy way
- Many police officers prefer to live outside the community they work in
- Bainbridge does not have enough housing for people with middle incomes
- Bainbridge needs a variety of housing types

PRE-KICKOFF INTERVIEWS

Planning Commission

- Some members of the Bainbridge community are supportive of affordable housing in the abstract, but not specific projects
- Housing security and stability is important for children and parents
- The HAP should include information about racial equity issues

Race Equity Advisory Committee (REAC)

- Bainbridge doesn't have any formal equity policies
- The Bainbridge community is supportive of equity and affordable housing in the abstract, but not specific projects
- Discussions about the HAP should include storytelling and images of what affordable housing or density looks like in practice

Housing Resource Bainbridge (HRB)

- Bainbridge needs more housing supply
- COBI's land use process is burdensome for developing affordable housing
- Some community members oppose anything they feel changes the character of Bainbridge
- There is misinformation and distrust re: city land use policies
- Bainbridge needs policies that create middle housing
- The HAP must have specific, actionable recommendations

Helpline House

- Bainbridge needs more affordable housing
- HAP will be an important foundation that makes it easier to build affordable housing
- The City needs to communicate that the community is supportive of HAP
- The HAP must be actionable

Design Review Board

- Parking is an important consideration
- The City should partner with other public entities to creatively use land for affordable housing
- New housing should be on sites that are thoughtfully selected re: sewer, hydrology, topography
- Bainbridge should consider economies of scale and build multiple projects on multiple sites
- HAP should include strategies for acquiring funding for affordable housing

Climate Change Advisory Committee

- The HAP should build off existing work (Climate Action Plan, Sustainable Transportation Plan, Groundwater Management Plan)
- The City needs a permanent staff member dedicated to implementing HAP

Key Themes from Analyst 2

SURVEY

General Survey

- There is not enough supply to meet demand.
- Not enough variety of housing to fit diverse income needs.
- Increased property taxes are pricing people off the island.
- Regulations and restrictions should be reduced to allow more affordable housing to be built.
- People on fixed incomes are struggling to pay property taxes or rent.
- Create more density to accommodate additional housing.
- Development could have detrimental environmental consequences (deforestation, water sources, land clearing, etc.).
- People have the right to live where they work.
- More affordable housing could reduce commute burdens.
- People with changing family situations or life situations should be able to stay on island.
- On Island salaries are unsuitable for island prices.
- It is difficult to afford any rental prices, much less buy a home.
- Public transportation needs to be prioritized alongside affordable housing.
- Responsible growth (shared spaces, sustainable buildings, etc.)
- Limited options near services (retail, medical, grocery, etc.)

Employer Survey

- Employers have a hard time recruiting, hiring, and retaining staff.
- City regulations and restrictions make affordable housing difficult to build.
- Little to none of my employees live on Bainbridge.
- People who have been displaced or priced off island should be prioritized for affordable housing.
- Investing in staff or business is limited by my cost of living.
- We lose employees due to commute or transportation costs.
- We should control what developers can build.

WE GO TO YOU MEETINGS

Alliance of Bainbridge Childcare Directors

- Affordable housing is nonexistent on Bainbridge.
- People working service jobs have a right to live here.
- We want a diverse community, especially in age.
- Recruitment and retention are the top challenges with hiring.

Bainbridge Conservation Coalition

- City needs to adhere to the Comprehensive Plan.
- The Housing Action Plan should include goals, strategies, responsible parties, fiscal impacts, and timeline.

- Focus development and density on Winslow.
- Provide housing for service workers.
- Potential solutions include transfer of development rights and an affordable housing fund via cash or tax.

Interfaith Council

- There are less young people or children at the congregation.
- Zoning restrictions limit housing development.
- There should be more rental options.
- Service people do not live on or had to move off the island.
- Local housing and public transport can reduce the number of cars on island.
- It's a diversity and faith issue, where we can't interact with people different from the majority.
- Housing affordability is impacting the schools with lower teacher and student count.
- It was difficult to find a minister to replace the one who previously got priced out.
- We want places with walkability or near the town centers.

Affordable Housing Stakeholders

- Critical workers of the community (teachers, fire fighters, cops, frontline workers, etc.) cannot afford to live on island.
- Hiring for key position is challenging because people can't find housing.
- Delays in approving affordable housing.
- Doing nothing has made things worse.
- Confirmation bias exists when people see families, even though they are less every year.
- High wage earners increasingly work remote, which isn't representative of the community.
- There is distrust for the city's commitment towards affordable housing.
- This is a political issue not an expertise issue.
- The dichotomy of density/development vs the environment is false.

Senior Center

- There has been an increase in membership.
- For retirees on fixed income, many find it hard to stay on island.
- People who have contributed years to the community are being forced to move.
- Service people do not live on or had to move off the island.
- It is important to live near medical services.
- The overall cost of living has greatly increased.
- People are being taxed out of their homes.
- There is little to no diversity (age and culture) because of housing prices.
- Building affordable housing (ADUs) is hard because of restrictions.
- Development or redevelopment in the right places with shared spaces.

FOCUS GROUPS

Developers

- Need to bring back programs (density bonuses, credits, FAR, TDR, HDGP) that facilitate affordable housing development.
- Profits from development allocated to public spaces (i.e., trails, parks)
- Facilitate our business practice to build homes at threshold pricing.
- Bainbridge Ordinance does not allow for the continued finance of permanent affordable homes.
- Implement clauses in ordinance to protect against foreclosure, property rights, and community land trust restrictions.
- Restrictions disincentivize building any affordable housing and density development.
- Biggest barrier to building small units is parking concerns.
- The city needs to consider fixed costs and impact fees when planning for smaller units.
- A voluntary program versus a mandatory program would incentivize more affordable housing developments.

Employers

- The biggest challenge is hiring, retaining, and replacing people when they leave for housing reasons.
- Entry-level or young workers either live off-island or with their parents due to lack of affordable housing.
- We need to promote more multi-family housing and rental options.
- Not enough supply to meet demand.
- Virtually no one working in services lives on island.
- Many employers have considered moving their business off island.
- It doesn't feel like the community actually wants change/ People who are anti-growth prevent progress from happening.
- Create less parking, provide more public transportation.
- We need to attract developers with socially conscious projects through incentives.
- Use land trusts to promote affordable housing.
- We need more responsible growth.
- Even high ranked positions cannot afford to live on island.
- Middle-income housing is non-existent.
- There are limited down-size options for seniors.
- Healthcare on-island has become inaccessible.
- People make it a low-wage problem not an affordability problem.
- The city needs to facilitate the permitting process and provide incentives for developers to build affordable housing and convert land.
- Unlike surrounding cities, development is difficult to negotiate on Bainbridge.
- For public spaces/roads, responsibilities should fall on the city, not the developer.
- Increased Airbnb's are contributing to the supply loss of housing and are detrimental to hotel businesses.
- With the challenge of finding and retaining employees, I and other businesses have considered moving.
- The city needs to build more apartments and condos, all types of housing is needed.

KEY INFORMANT INTERVIEWS

- Housing on Bainbridge is out of reach for the average worker.
- We have lost almost all volunteers because their day job can't support their housing costs.
- Challenging to get entry-level firefighters who live and work in the community.
- We need more affordable rent options for public sector workers.
- Approach housing crisis with cultural change driven by community issues not COBI issues.
- Enforcing installed sprinklers in all new buildings to mitigate fires and damage.
- Lack of housing affordability impacts our hiring and retainment.
- Only around a third of our staff live on island.
- Employees cannot find enough rental and ownership options unless there is a relational connection.
- We need more variety of housing for public sector employees especially.
- The lack of housing perpetuates exclusivity and exploitation of workers.
- Without housing affordability Bainbridge will turn into a homogenous, affluent area.
- We need to prioritize housing development around community and walkability.
- Lack of affordable housing impacts the number of on island staff, hiring, traffic, congestion, and carbon footprints.
- Dropping state funding due to decreased enrollment will result in non-fundable programs.
- There is a strong correlation between the amount of new development, lack of housing, and decline in enrollment.
- Worried about future staff/student ratio once experienced staff retire.
- The number of employees that live on-island is decreasing.
- The school district has had conversations about school closures due to lack of students.
- Create incentives for companies/banks to facilitate home ownership for public employees.
- Bainbridge is losing its sense of a multi-generational place.
- Bainbridge cannot remain a rural place forever, we can evolve responsibly.
- Middle-income housing is missing for my officers.
- Recruitment and retainment have not directly been impacted by housing, maybe it's already a filter.
- There are not enough housing options across all income levels.
- Lots of officers live in Poulsbo or North Kitsap and they commute to Bainbridge.
- Traffic could be the biggest public safety component

PRE-KICKOFF INTERVIEWS

Planning Commission

- People who would benefit from affordable housing, are not the one's attending public meetings.
- The planning commission is only hearing from those who oppose affordable housing.
- Housing stability is essential for family security and mental health.
- A new homeowner can also mean someone was displaced by their landlord.
- Development on Winslow needs to be prioritized to boost concentration and transportation.
- To facilitate new developments, the surrounding area needs to be contacted first to understand concerns.

Race Equity Advisory Committee (REAC)

- Incorporate equity-stated policy into city planning and housing efforts.
- The council should implement a race/equity lens on every major decision.
- Housing affordability and race/equity go hand in hand.

Housing Resource Bainbridge (HRB)

- Supply is a key housing issue.
- The development process for affordable housing on Bainbridge is more burdensome compared to other jurisdictions.
- Bainbridge needs to implement more inclusionary zoning and TDR programs.
- Housing and environmental issues do not have to be opposed.
- The HAP needs to produce specific recommendations to enforce policy change.
- Inclusionary zoning and MFTE allows higher rents to offset lower rents.

Helpline House

- The faction that does not want development, speaks over those in support of affordable housing.

Design Review Board

- There are lots of setbacks when building affordable housing.
- Parking is one of the most controversial issues.
- Transit systems need to extend during non-commuter hours.
- Unoccupied land trusts should be used as affordable housing for service workers.
- Place finding requires a balance between affordable housing and water/sewer limitations.

Climate Change Advisory Committee

- Our climate action plan, sustainable transportation plan, and groundwater management plan should be included in the HAP.
- Housing affordability is also about health equity.
- Housing affordability impacts the next generation.
- We have an obligation to assume some housing growth.



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: November 15, 2022

ESTIMATED TIME: 30 Minutes

AGENDA ITEM: (6:40 PM) Receive an Update on the Wastewater Beneficial Re-use Project **2022 Council High Priority Project** - Public Works,

SUMMARY: Public Works staff will provide an update on the Wastewater Beneficial Re-use Project.

AGENDA CATEGORY: Discussion

PROPOSED BY: Public Works

RECOMMENDED MOTION: Discussion only.

STRATEGIC PRIORITY:

FISCAL IMPACT:

Amount:	N/A
Ongoing Cost:	N/A
One-Time Cost:	N/A
Included in Current Budget?	No

BACKGROUND: The wastewater beneficial re-use study was funded by the City Council with American Rescue Plan Act (ARPA) funding in fall 2021. Through a competitive process, the City chose the consultant HDR to perform a preliminary analysis of beneficial re-use. For this agenda item, City staff will present a summary of that preliminary analysis, and recommend next steps.

The attached presentation and memo provide further background information on this topic.

ATTACHMENTS:

[WWTP Beneficial Re-Use Presentation.pptx](#)

[Bainbridge Island WW Beneficial Reuse TM 1 2022-11-01.pdf](#)

FISCAL DETAILS: N/A

Fund Name(s):

Coding: N/A

Wastewater Beneficial Re-use Preliminary Findings

Christopher Wierzbicki, PE
Public Works Director
November 15, 2022



Background

- The wastewater beneficial re-use study was funded by the City Council with American Rescue Plan Act (ARPA) funding in fall 2021
- \$900K was allocated for the study
- Through a competitive process, the City chose the consultant HDR to perform a preliminary analysis (\$92K)

Agenda

- Context setting: Review of Wastewater Treatment Plant status and upcoming work
- Overview of wastewater beneficial re-use options
- Summary / Next Steps

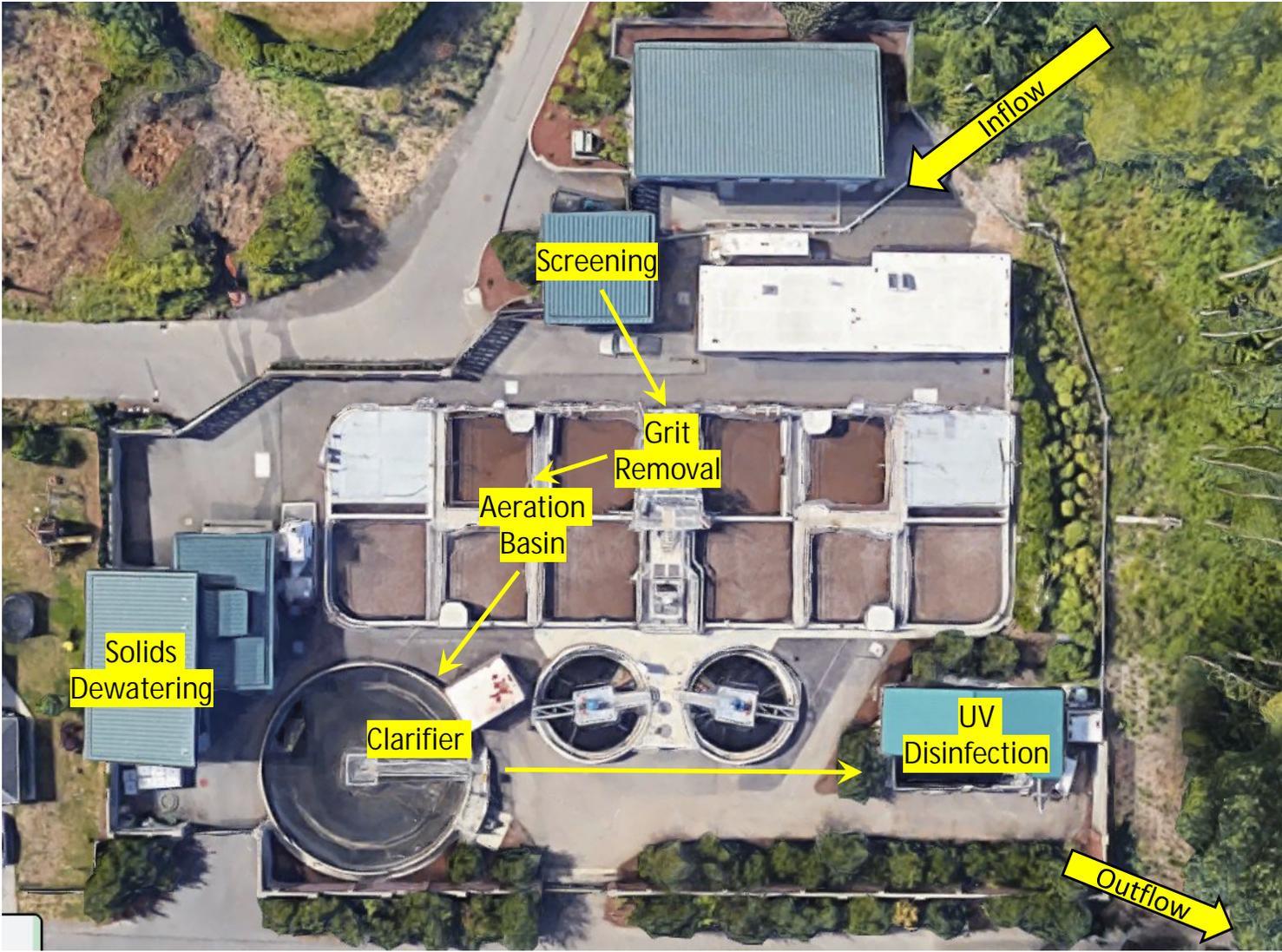
Wastewater Treatment Plant Background and Context



Wastewater Treatment Plant Location



Wastewater Treatment Plant Processes



Wastewater Beneficial Re-use – Preliminary Findings

November 15, 2022

Context: Wastewater Treatment Plant (WWTP) Status/Planned Work

Recent work related to the WWTP includes the following:

1. Evaluation of contaminants of emerging concern (CEC) (presented to City Council in June 2021)
2. On-going and near-term capacity upgrades
3. Planned and long-term capacity upgrades
4. Staffing challenges

Context: Wastewater Treatment Plant (WWTP) Status/Planned Work

1. Evaluation of contaminants of emerging concern (CEC) (presented to City Council in June 2021)
 - CEC levels at the plant are low (flame retardants, personal care products, and PFAS) and unregulated
 - Lowest-cost option for CEC removal ~\$2.5M; increases in maintenance/ops and space constraints
 - Further treatment for re-use of effluent possible, but costs are high (\$5-10M)

Context: Wastewater Treatment Plant (WWTP) Status/Planned Work

2. On-going and near-term capacity upgrades (2022-2028) - \$3.6M
3. Planned and long-term capacity upgrades (2028-2035) - \$3.4M

Capital Improvements Summary

Priority	Improvement	Driver				Timeline	Preliminary Cost
		Condition	Capacity	Redundancy	Regulatory		
1	Biological Capacity Upgrades		✓			2023 – Demonstration 2024 – PER/Re-rating 2025 – Construct/Commission	\$400k \$200k \$200k
2	UV Disinfection System	✓				2023 – Engineering 2025- Construct/Commission	\$100k \$400k
3	Plant drain pump station - Rebuild	✓				2022	Plant O&M
4	Secondary clarifier mechanism	✓				2022 to 2023	Plant O&M - \$90K
5	Sludge dewatering		✓	✓		2028/2029 - Engineering 2030-Construct/Commission	\$1.4M
6	New Secondary clarifier demo small clarifiers & replace		✓			2035 Placeholder	\$2.0M
<u>tbd</u>	Extend outfall				✓	Depends on DNR conversations	\$2.1M
<u>tbd</u>	Source control Monitoring		✓			2025	\$175k

Wastewater Beneficial Re-use Overview



Background: What does it mean to beneficially re-use wastewater?

Re-direct and re-purpose effluent (outflow) from the plant in lieu of discharging to Puget Sound in order to:

- Reduce pollutants to the Sound
- Irrigate areas that are off-limits to the general population (ex. forests)
- Irrigate populated areas (ex. golf courses)
- Re-charge groundwater sources (aquifers)
- Use it for grey-water purposes (toilet flushing)
- Re-charge surface water features (streams)
- Drink it

Background: How is wastewater prepared for re-use?

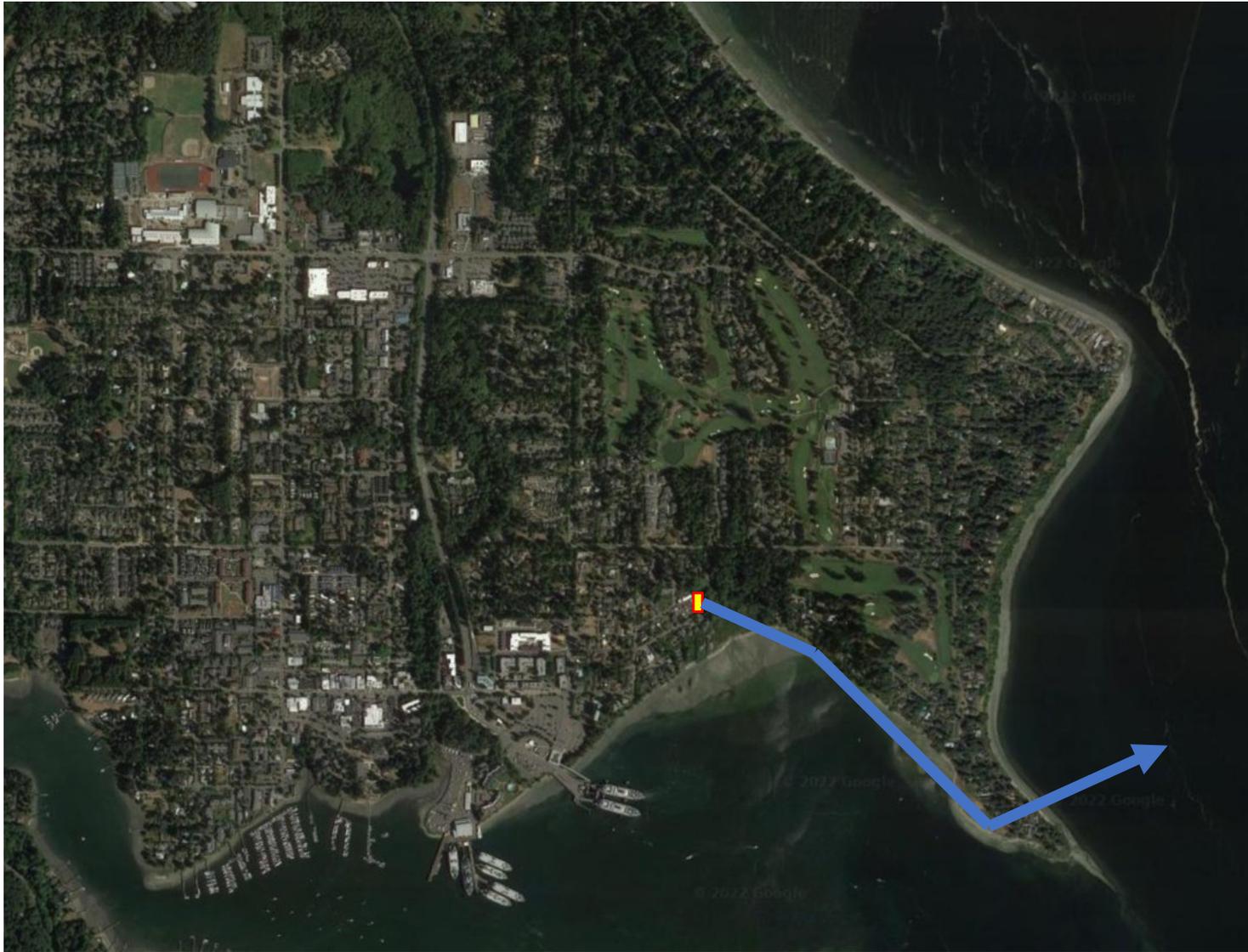
There are two main steps associated with re-use:

- Treatment – the quality of the effluent must be improved before being re-used
- Distribution – the effluent must be transported to the re-use location

Background: Wastewater Classifications

- Class B (current) - construction and industrial purposes; irrigation where public access is restricted
- Class A - general irrigation; flushing/greywater; ground/surface water recharge
- Class A+ - drinking and other potable uses

Option 1 – Enhance Effluent and Distribute to Puget Sound



Wastewater Beneficial Re-use – Preliminary Findings

November 15, 2022

Option 1 – Enhance Effluent and Distribute to Puget Sound

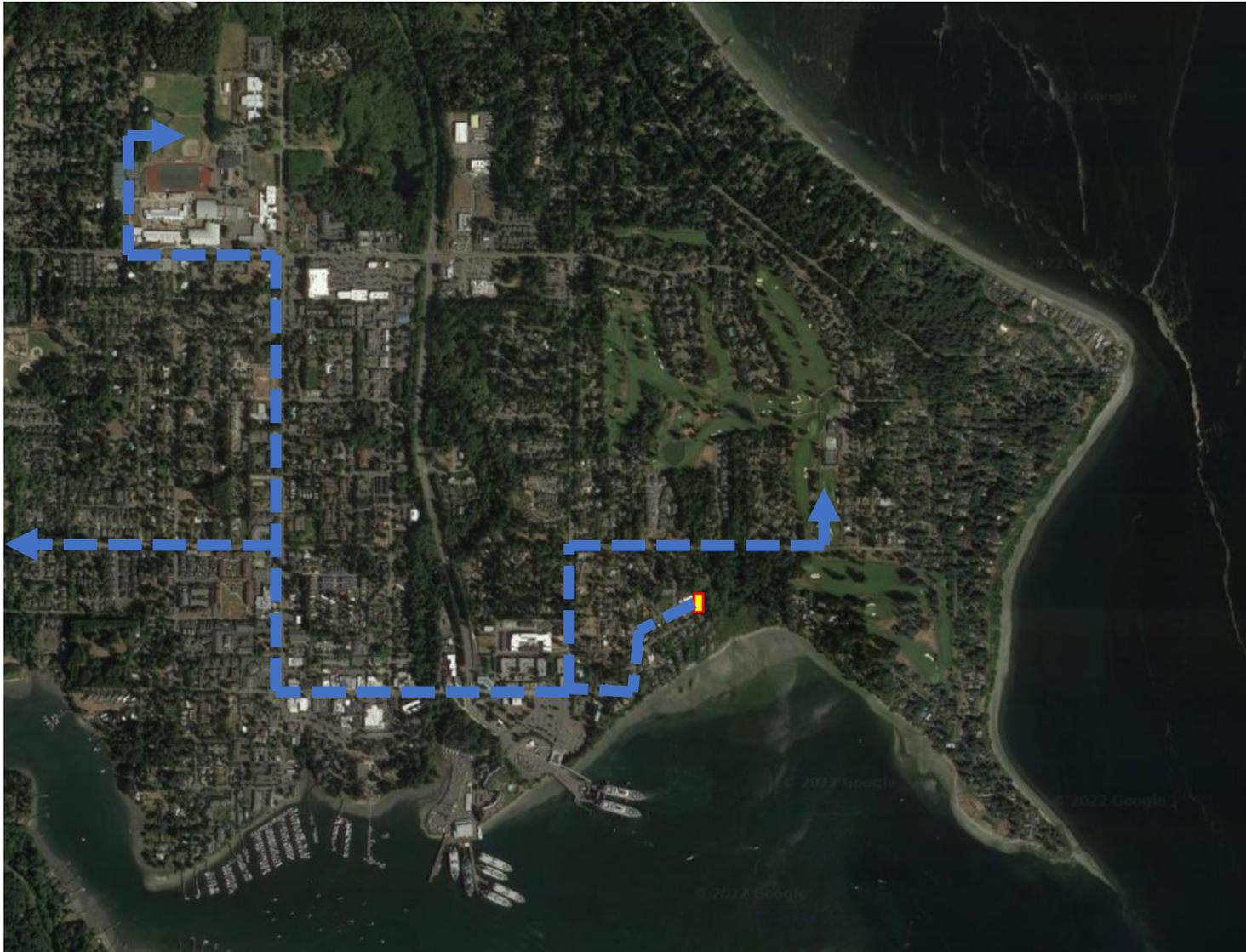
Pros

- Environmental enhancement
- Least cost @ \$2.5M
- All effluent discharge volume is treated
- Limited complexity

Cons

- Additional operation and maintenance costs and staff time
- System will occupy valuable real estate at the plant site
- Limited return on investment

Option 2 – Enhance Effluent and Distribute for irrigation/groundwater recharge



Option 2 – Enhance Effluent and Distribute for irrigation/groundwater recharge

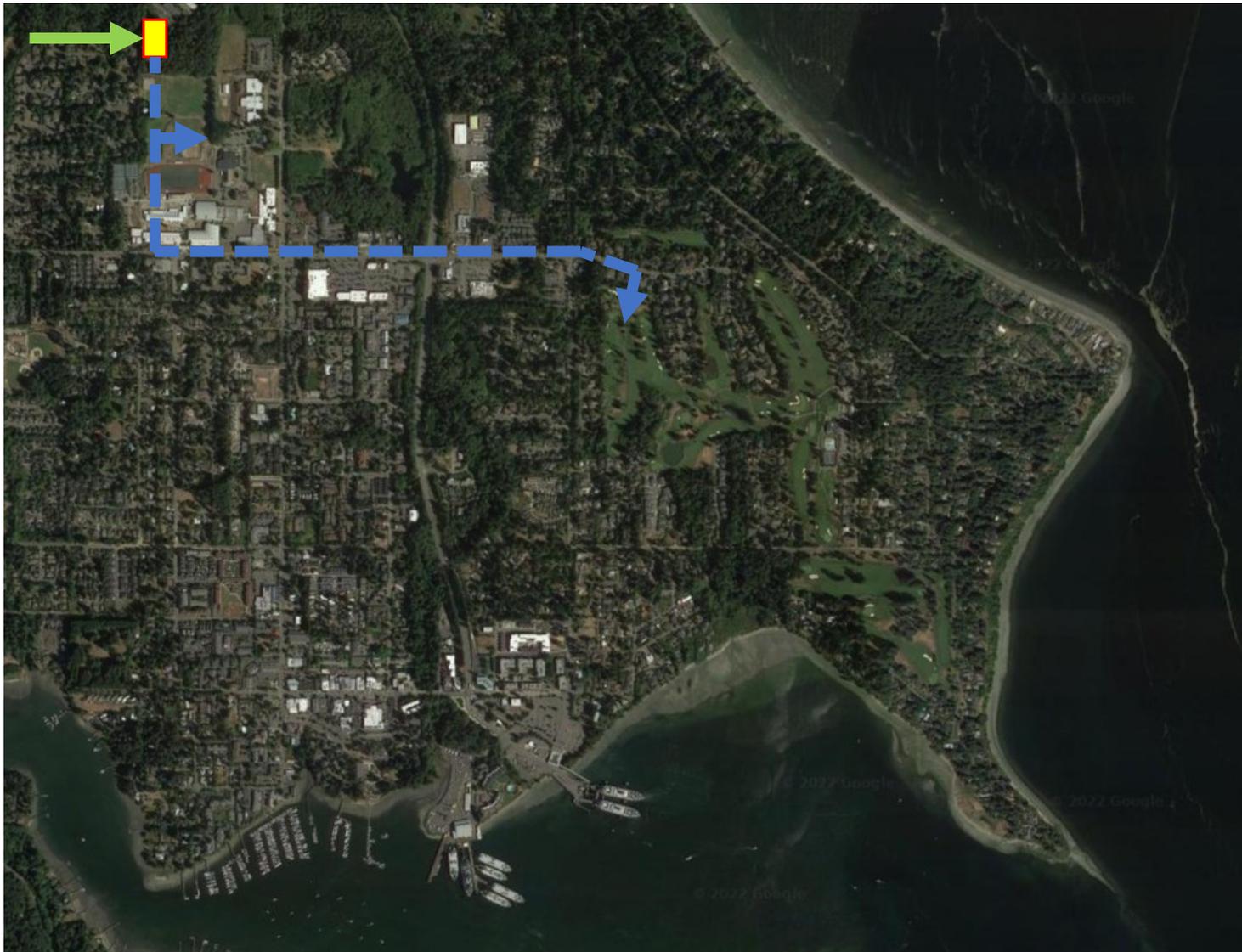
Pros

- Environmental enhancement
- Reduction in summertime groundwater pumping from golf course wells – potentially city-owned wells

Cons

- Cost of conversion to Class A ~\$4-5M
- Cost of distribution an additional \$1-7M
- Additional operation and maintenance costs and staff time
- System will occupy valuable real estate at the plant site

Option 3 – New Package Treatment Plant with Irrigation/groundwater recharge



Option 3 – New Package Treatment Plant with Irrigation/groundwater recharge

Pros

- Environmental enhancement
- Reduction in summertime groundwater pumping from city-owned wells and potentially golf course wells
- Eases capacity on Winslow WWTP by diverting flows
- Potential for cost savings due to reduced pressure on water and plant needs

Cons

- Need to purchase/lease suitable site for plant
- Cost of plant ~\$9M
- Cost of distribution ~\$2-7M
- Additional staff needed, as well as increased operation and maintenance costs
- Need to determine if inflow/outflow balance possible

Wastewater Beneficial Re-Use Option Summary

- Option 1 – lowest cost (\$2.5M), lowest return on investment
- Option 2 – high cost (\$9-15M), medium return on investment
- Option 3 – highest cost (\$11-\$16M), highest return on investment (if feasible), including relieving existing water and sewer system pressures and costs

Wastewater Beneficial Re-Use Option Next Step Recommendation

- Option 1 – lowest cost (\$2.5M), lowest return on investment - **no action**
- Option 2 – high cost (\$9-15M), medium return on investment - **explore feasibility and costs (\$125K)**
- Option 3 – highest cost (\$11-16M), highest return on investment (if feasible), including relieving existing water and sewer system pressures and costs – **explore feasibility and costs (\$175K)**
- **Explore future grant opportunities**

Wastewater Beneficial Re-use

Q&A

Christopher Wierzbicki, PE
Public Works Director
November 15, 2022



Technical Memorandum



To: Chris Wierzbicki (City of Bainbridge Island)
From: Dan Graves and Jeff Hansen, PE (HDR)
Project: Wastewater Beneficial Reuse Analysis
Date: November 1, 2022
Subject: Reuse Needs/Drivers and Potential Opportunities

Executive Summary

This technical memorandum summarizes the first step in a process that the City of Bainbridge Island has initiated to explore opportunities related to the beneficial reuse of wastewater. This first phase provides a discussion of the regulatory context regarding water reuse, needs and drivers, potential sources and uses of reuse water, conceptual-level costs of select alternatives, and identification of program implementation considerations.

Key findings and highlights of this preliminary effort are:

- Generally, Class A reclaimed water is required for the majority of beneficial uses of wastewater that are contemplated by a municipal entity like the City. “Class A” refers to water that is generated from wastewater using specific treatment processes and that meets stringent water quality requirements. While opportunities for reuse of lower quality water may exist, these are anticipated to be few in number with very limited benefit being received, based upon the experience of other Puget Sound municipalities. Therefore, this analysis is focused on the use of Class A reclaimed water as the source water for beneficial uses.
- A range of opportunities exist for the use of reclaimed water on the island, with the most feasible including irrigation of landscape and turf areas (such as golf courses, sports fields, and parks) and groundwater recharge (with the purpose of augmenting shallow groundwater aquifers while also supporting base flows in streams and enhancing wetland areas).
- The costs of producing Class A reclaimed water, either through upgrades to existing wastewater treatment plants like the City’s Winslow facility or by constructing new and smaller treatment facilities in presently unsewered portions of the island, can be significant. Such costs must be considered in conjunction with the costs of pumping and piping infrastructure needed to deliver the resource to potential use areas when comparing investments with the benefits that can be realized.
- This analysis evaluated six hypothetical reuse alternatives, considering various combinations of reclaimed water sources and uses. The annual amount of reclaimed water to be beneficially reused under these options ranges from 2.0 to 40.8 million gallons. The capital costs associated with the alternatives ranges from \$5.5 million to \$12 million.
- As the City continues exploring the feasibility of reuse on the island, key implementation considerations to take into account, beyond technical feasibility, costs, and water quantity/quality benefits, include items such as evolving water quality regulations, grant/loan funding options, and the need for continued public outreach.

Details of the analysis conducted for this phase of work are described below.

1.0 Introduction

The City of Bainbridge Island (City) is conducting an initial review regarding opportunities and constraints related to beneficial reuse of wastewater. A phased approach to this effort is being taken, with the objective of this initial step being to determine what opportunities may be worth exploring in greater detail. This technical memorandum (TM) summarizes the first step in this process, and provides:

- A summary of the regulatory context surrounding water reuse.
- Discussion of needs and drivers that might lead the City to consider implementing reuse.
- Identification of potential sources and uses of reuse water on the island.
- Description of example reuse implementation alternatives.
- Identification of other considerations that can inform reuse program development.
- A summary of next steps.

The information presented in this TM is based in part upon review of other planning efforts, which have previously explored the concept of wastewater reuse on the island from various perspectives. Documents related to these previous efforts include:

- City of Bainbridge Island Water System Plan; July 2017 (WSP).
- City of Bainbridge Island General Sewer Plan; July 2015 (GSP).
- WRIA 15 Watershed Restoration and Enhancement Plan; March 1, 2022 (WRIA 15 Plan). *[This version is the Final Draft Plan submitted for Salmon Recovery Funding Board review, though technical analyses completed as part of earlier draft are also referenced in this TM.]*
- City of Bainbridge Island Draft Technical Memorandum: CEC Treatment Technology Options and Performance Literature Review; January 26, 2021 (2021 WWTP CEC Review).
- City of Bainbridge Island Draft Technical Memorandum: Winslow WWTP Capacity Evaluation and Upgrade Alternatives; March 16, 2021 (2021 WWTP Capacity Evaluation).

2.0 Regulatory Context

Wastewater that is reused for beneficial purposes in a municipal context must meet certain regulatory and water quality requirements. Throughout this document, such water is referred to as reclaimed water (also known as recycled water). In Washington, reclaimed water is defined in Washington Administrative Code (WAC) 173-219 as: “water derived in any part from a wastewater with a domestic wastewater component that has been adequately and reliably treated to meet the requirements of WAC 173-219, so that it can be used for beneficial purposes.” As such, reclaimed water is no longer considered a wastewater once it is put to use.

WAC 173-219 defines the requirements and constraints pertaining to the use of reclaimed water for a wide range of purposes. Reclaimed water permits are issued by the Washington State Departments of Ecology (Ecology) and Health (DOH). Ecology is generally the lead permitting agency, with the primary exception being when the source water is generated by an on-site sewage system with a design flow of less than or equal to 100,000 gallons per day (gpd).

There are three classes of reclaimed water defined in WAC 173-219: Class B, Class A, and Class A+. These are defined by varying degrees of treatment and water quality, and are each applicable for various uses. Examples are:

- Class B (meets oxidation and disinfection requirements) reclaimed water can be used for some construction and industrial purposes, and certain irrigation uses where access to the general public is restricted.
- Class A (meets Class B requirements, plus coagulation and filtration, or use of membrane filtration) reclaimed water can be used for a wide range of commercial uses (such as toilet/urinal flushing and street sweeping) and irrigation of areas that have open access to the public. This can also be used for groundwater recharge, assuming additional requirements are met, such as nitrogen limits.
- Class A+ (meets Class A requirements, plus additional needs to be health protective, as defined on a case-by-case basis) is required for direct potable reuse (i.e., drinking or direct ingestion).

Generally, Class A reclaimed water is required for the majority of uses contemplated by a municipal entity like the City. Therefore, it is water of this quality that is considered in this TM when evaluating potential reuse opportunities. While opportunities for use of lower quality water may exist, they are anticipated to be few in number with very limited benefit being received, based upon the experience of other Puget Sound municipalities.

3.0 Needs and Drivers

Water reuse can provide multiple benefits, which can be organized according to the following perspectives.

- **Wastewater Utility.**
 - **Relieve capacity constraints.** For some utilities facing capacity constraints at centralized wastewater treatment plants (WWTPs) or in specific portions of their collection/conveyance systems, the reuse of reclaimed water produced at smaller “satellite” plants located higher up in the watershed can divert the amount of wastewater being processed at a central facility, thereby deferring or avoiding capacity-related improvements. The City’s 2021 WWTP Capacity Evaluation notes that during the spring of 2020, the City’s Winslow WWTP exceeded 85% of its design capacity for two months, indicating that planning for capacity expansion may need to be begin soon. In the event wastewater flows within the Winslow sewer service area, particularly in the northwest portions located furthest away from the WWTP, are projected to increase to a point where significant capital would be required to upgrade conveyance or WWTP infrastructure, the retaining of wastewater in those areas could reduce centralized treatment costs. Such reductions would be offset by reuse infrastructure costs and the increased operational costs of having an additional facility to manage, and so would have to be evaluated to determine if the trade-off is cost-effective.
 - **Reduce marine discharge.** Reuse is being increasingly explored around Puget Sound as a means to reduce wastewater discharge to marine waters and comply with more restrictive wastewater discharge permit requirements, such as those

established by the recently enacted Puget Sound Nutrient General Permit (PSNGP). Categorized in the PSNGP as a small discharger, the City will ultimately need to meet a total inorganic nitrogen (TIN) effluent limit of 10 mg/L. The City's Winslow WWTP already meets this requirement and is projected to do so into the near future. The 2021 WWTP Capacity Evaluation indicates that at a flow rate of 1.0 million gallons per day (mgd), the WWTP is modeled to have effluent TIN values of 1 mg/L and 3.5 mg/L under dry and wet weather conditions, respectively. Therefore, it is likely that diversion of marine discharge to reuse would be beneficial from a permitting perspective only if permit requirements become more restrictive in the future.

However, the broader environmental benefit of reducing marine water discharge is reflected in Kitsap County's "Water as a Resource" policy which includes in its guiding principles the concept of reducing pollutant loadings to water bodies. Therefore any reduction in loading to Puget Sound can be viewed as imparting an environmental benefit and being protective of local area water resources.

- **Water Utility.**

- **Reduce peak demand.** Using reclaimed water for non-potable applications can reduce the stress placed upon the island's groundwater supplies, especially during peak use times, and reduce/defer investments in water delivery infrastructure.
- **Augment groundwater aquifers.** Using reclaimed water for groundwater recharge can directly benefit the groundwater system by offsetting future decreases in recharge by precipitation and increases in groundwater pumping to meet expanded water supply demands. This has been specifically identified as a recommendation by the City's Environmental Technical Advisory Committee (ETAC) for consideration in development of the City's Groundwater Management Plan (GWMP).

- **General Water Resource Management.**

- **Supporting Streams and Wetlands.** Reclaimed water can be used to directly augment streams and wetlands, and can be used to indirectly influence them through recharge of groundwater that supports such features. Such actions are in alignment with the County's "Water as a Resource" policy.
- **Climate Resilience.** Using reclaimed water for irrigation and groundwater recharge may mitigate potential negative impacts on the island's water resources due to climate change. The City's Climate Action Plan, published in November 2020, indicates that increasing temperatures and reduced rainfall during summer months will result in increasing irrigation demands for island vegetation. Utilizing reclaimed water for outdoor use can prevent significant additional groundwater withdrawals during the dry season allowing the aquifer and connected streams to maintain their supply. Additionally, groundwater recharge will further help aquifers sustain their capacities.

4.0 Wastewater Sources

Evaluating reuse opportunities requires first understanding where possible sources of reclaimed water currently exist and where they may be feasible in the future. The potential sources on the island include:

- **Existing Central Wastewater Treatment Plants.** Figure 1 shows the locations of the two existing WWTPs located on the island. Both of these facilities currently discharge secondary treated effluent to Puget Sound, and would require improvements to produce Class A reclaimed water.
 - **Winslow WWTP.** This facility was originally constructed in 1978, and last upgraded in 2005. It currently provides secondary treatment through screening, grit removal, aeration basins, secondary clarifiers, and ultraviolet light (UV) disinfection. The plant is rated at a maximum month flow of 1.2 mgd. Average annual flows are currently 0.55 mgd, with maximum month wet weather flows of 0.90 mgd.
 - **Kitsap County Sewer District No. 7 (SD7) Water Reclamation Facility.** This facility was first built in 1996. The facility was expanded in 2009, and provides secondary treatment through screening, aeration basins, clarifiers and UV disinfection. It treats wastewater from Fort Ward, Lynwood Center, and Rockaway Beach. The plant is rated at 0.28 mgd. Average flow rates are on the order of 0.09 mgd, with maximum day values up to 0.43 mgd, based on the facility's NPDES permit fact sheet.
- **Satellite “Package” Plant Opportunities.** Decentralized wastewater treatment options offer opportunities to produce reclaimed water in areas remote from the island's central treatment plants. For example, in the City's GSP, two neighborhood service centers in the middle portion of the Island (i.e., the Mid Island Study Area) that are not currently sewered by the City were identified for potential future sewer service. The two areas are referred to as the eastern and western pockets based on their relative position to each other. The eastern pocket would produce approximately 2,570 gallons per day (gpd) during average dry weather flows (ADWF) and up to 7,710 gpd during peak hour flows (PHF). Sources of wastewater in the eastern pocket are all commercial. The western pocket would produce 13,020 gpd during ADWF and up to 39,060 during PHF. Sources of wastewater from the western pocket are from commercial, low density residential, and public users.

The City considered membrane bioreactor (MBR) “package plants” with groundwater percolation ponds as an option for wastewater management in these areas. MBR package plants typically treat between 20,000 to 150,000 gpd. As described in the GSP, the eastern pocket is likely too small to warrant an MBR package plant; the western pocket is more appropriately sized for this type of treatment.

A situation where this type of package plant may be particularly beneficial is in areas where there are dense clusters of failing septic systems, which would require investment to address identified public or environmental health concerns, that also happen to be located in proximity to potential reuse sites. An initial review of the County's assessment of failed septic systems indicates no obvious area where these conditions are met. As shown on Figure 4, the majority of failed septic systems on the island are located along the shoreline, at distance from where use of reclaimed water would be most beneficial.

5.0 Potential Reuse Opportunities

This section identifies a range of potential uses for reclaimed water on the island, based on a preliminary review of available data.

5.1 Irrigation

A common beneficial use of reclaimed water is for landscape and turf irrigation. This is typically deemed cost-effective when large areas of irrigation are located in fairly close proximity to each other. As an initial step in evaluating the potential for this use, a high-level assessment was made of the largest uses of landscape/turf irrigation water in these locations:

- Winslow Service Area.** This includes the largest irrigation users served by the City as well as Wing Point Golf and Country Club, which has its own water supply. A summary of the potential reclaimed water volume that could be utilized by these uses is provide in Table 1, and reflects similar analyses completed previously in the City’s WSP and in the WRIA 15 Plan. Locations are provided on Figures 2 and 3. The majority of this irrigation demand is associated with the golf course, though that of the City’s largest water users is also not insignificant.

Table 1. Winslow Area – Potential Irrigation Uses of Reclaimed Water

Potential Irrigation User	Estimated Irrigation Demand ^a		
	Average Annual (gallon)	Max Month Average Day (gpd) ^b	Max Instantaneous (gpm) ^c
City Water User			
Bainbridge Island High School	2,027,102	33,315	139
Rotary Park	614,689	9,618	40
Sakai Intermediate School	562,821	8,433	35
Woodward Middle School	2,385,691	32,440	135
Non-City Water User			
Wing Point Golf and Country Club ^d	33,542,287	562,319	2,343
Sands Avenue Ball Fields ^e	1,677,114	28,116	117
TOTALS	40,809,704	674,241	2,809

Notes:

- Based on City billing system data, 2019-2021.
- Meters are read bi-monthly, therefore Max Month Average Day Demand (ADD) represents the maximum two months of consumption. For all years for all customers, this was the meter read from mid-to late-August, which represents consumption from mid-June through mid-August. A conversion factor was used to reduce the number of days from the full two months to 18 days per month (36 days in a two-month billing period), as irrigation does not normally occur every day.
- Assumes approximately 4 hours of irrigation per irrigation day in the maximum month. = Max Month ADD / 4 hours per day / 60 minutes.
- Estimated based on 75 irrigated acres, defined in the Country Club’s water rights, and assumptions regarding irrigation requirements on Bainbridge Island from the Washington Irrigation Guide, 1997.

- e. Estimated based on 3.75 irrigated acres, using a measurement mapping tool on the aerial image of Sands Avenue Ball Field, and assumptions regarding irrigation requirements on Bainbridge Island from the Washington Irrigation Guide, 1997.
- **Rockaway Beach Service Area.** Some residential properties in the Rockaway Beach Service Area exert a higher maximum day demand/average day demand (MDD/ADD) peaking factor than for the rest of the system. The WSP documents this peaking factor as averaging 3.0, but recent data indicate it may be as high as 4.0 at times. Therefore, this service area represents a concentrated area of high irrigation use. Without reviewing specific account data, a high-level estimate of potential irrigation demand for this area was derived as follows:
 - Average water consumption from the 2006-2015 period, as documented in the WSP, is characterized as: total annual consumption = 6 million gallons (MG); ADD = 16,000 gpd; MDD = 48,000 gpd.
 - From HDR's experience, western Washington water utilities with high summertime peaking factors use approximately 30-35% of total water consumption for outdoor purposes. A value of 33% (1/3) is assumed for this high-level calculation. Applying this to the total annual consumption of 6 MG yields a total annual irrigation usage of 2 MG.
 - Averaging the remaining 4 MG over 365 days, this results in total average daily indoor water usage of 11,000 gpd. With a MDD of 48,000 gpd, this indicates maximum daily irrigation usage of approximately 37,000 gpd for the area as a whole.
 - **Kitsap PUD (KPUD) Service Areas.** KPUD operates multiple water systems on the island and is assessing its largest water users, to support this effort of exploring potential irrigation uses of reclaimed water. This information will be included in future phases of this analysis, once available from KPUD.

5.2 Groundwater Recharge and Streamflow Augmentation

Groundwater provides most of the late summer flow to area streams and is the source of all drinking water on the island. The two most heavily pumped aquifer layers for drinking water are the Sea Level Aquifer (QA1) and the Fletcher Bay Aquifer (QA3). Private, permit-exempt wells primarily access the Vashon Advance Aquifer (Qva) and the Sea Level Aquifer. The upper three units, Qvr, Qva, and QC1 are the main source of direct recharge for surface water baseflow. Most of the island surface is Qvt (Vashon Till confining unit) on top of Qva or exposed Qva. The Qvt is a confining unit that, when thin enough, allows recharge to the Qva layer below.

Recharge for groundwater systems comes as precipitation and septic system returns except for about 5% which flows under the Port Orchard Bay from the Kitsap Peninsula. Reclaimed water can provide additional recharge opportunities. The WRIA 15 Plan identifies managed aquifer recharge (MAR) as a potential use for reclaimed water throughout the County. While the plan focuses on several potential groundwater recharge projects on the island involving stormwater capture, it is also possible to utilize reclaimed water as the source water for recharge. As part of the technical work conducted to inform the plan, the WRIA 15 committee identified areas where the Qvt confining layer is less than 10 ft thick and the underlying Qva layer is greater than 50 ft thick as being the most likely land areas for groundwater recharge (see Figure 4). Within the City's water retail service area, there are approximately 10 acres of land that fit this criterion. Areas of most interest will be those that are

located generally in the middle of the island that are suitable for recharge, where the positive impact of recharge can extend radially outward to the greatest extent. Specific recharge projects would need additional hydrogeologic analysis to determine the total groundwater recharge potential and feasibility of recharging at that site.

Direct streamflow augmentation is also a possible use of reclaimed water, though it can be significantly more challenging to permit, typically requiring an additional National Pollution Discharge Elimination System (NPDES) permit.

5.3 Indoor Uses

Indoor uses of reclaimed water include commercial toilet and urinal flushing, cooling tower use, and industrial process water use. Of these types of uses, toilet/urinal flushing holds the most promise for implementation on the island, but is likely only worth considering in the context of new construction as the costs for retrofitting of existing buildings with dual plumbing systems has typically been found to be prohibitively expensive.

5.4 Other Uses

Stormwater ponds represent another area where recharge with reclaimed water may be possible. Applying reclaimed water to stormwater ponds could keep the facilities active throughout the year, particularly during dry period of low stormwater flows in the summer. This approach is being explored by Kitsap County and Silverdale Water District in other portions of the County. The most likely candidate ponds for reclaimed water application would be those near a proposed reclaimed water pipeline and/or large irrigation sites where reclaimed water may already be put to use. Based on City GIS data, there are 24 stormwater ponds in proximity to other potential facilities that may be used for reclaimed water irrigation (Figure 3). Further hydrogeologic investigation would be needed to determine feasibility, along with evaluation of stormwater permit compliance.

Similarly, wetland enhancement is a potential use. In western Washington, most utilities explore such uses in conjunction with shallow aquifer recharge. Through augmenting groundwater resources, benefits can often be realized in nearby wetland areas and streams.

6.0 Example Alternatives

To aid in identifying what opportunities may warrant further exploration, it can be instructive to contemplate what an entire system would be comprised of, for the purpose of understanding costs and benefits. The following are potential reclaimed water system alternatives that consider combinations of possible reclaimed water sources and the uses that could be served by them. This list is by no means exhaustive, but was developed to illustrate a range of costs and benefits associated with varying reclaimed water system arrangements. The costs shown below are conceptual-level, pre-Class 5 estimates, based on: previous estimates generated in other City planning efforts, recent bid tabulations for other similar work, and engineering judgement. These are project-level capital costs, including design, permitting, and contingencies. Annual operations and maintenance costs are not included.

- **Alternative 1 – Winslow Area (Centralized Treatment)**
 - **Source.** In this alternative, it is assumed that the Winslow WWTP is upgraded to produce Class A reclaimed water. Multiple options exist for such upgrades. The City's 2021 WWTP CEC Review explored various treatment technologies that would

remove contaminants of emerging concern (CECs) and yield water quality that meets reclaimed water requirements. The preferred option resulting from that analysis was the addition of granular activated carbon (GAC) to the treatment train. If coupled with upgrades to the existing UV disinfection system, Class A reclaimed water could be generated.

Treatment Cost – The total cost of these upgrades is assumed to be on the order of \$4,500,000. This is based on the estimate of \$1,400,000 for GAC (from the 2021 WWTP CEC Review) plus approximately \$3,000,000 for UV system upgrades (based on costs for new systems of the WWTP’s size). It should be noted that per the 2021 WWTP CEC Review and 2021 WWTP Capacity Evaluation, both documents prepared by Murraysmith, these treatment facility upgrades are assumed to be located within the existing footprint of the Winslow WWTP property. The GAC system would be comprised of two vessels located on the northeastern edge of the existing plant, requiring about 600 square feet of land area. An associated pre-filtration building of approximately the same size, could potentially be located adjacent to the clarifiers on the southeastern edge of the property.

○ **Uses.**

- 1a – Golf Course Irrigation. The largest nearby irrigation user is Wing Point Golf and Country Club, as shown in Table 1. This sub-alternative minimizes distribution infrastructure by assuming delivery only to the golf course.

Conveyance Cost – \$1,000,000. Based on ~2,500 feet of pipe (at \$350/ft) and a small pump station.

- 1b – City Area Irrigation. This sub-alternative involves a purple pipe distribution network to serve all potential irrigation customers identified in Table 1.

Conveyance Cost - \$7,500,000. Based on ~20,000 feet of pipe (at \$350/ft) and a pump station.

- 1c – Head-of-the-Bay Groundwater Recharge. This sub-alternative involves conveyance to a recharge area upgradient of the Head-of-the-Bay wellfield. More evaluation is required to determine a specific area that has suitable hydrogeologic conditions, though the mapping in Figure 4 suggests such areas do exist in the vicinity. The WRIA 15 Plan development process identified a potential annual recharge volume of 22.5 acre-feet per year (or 7.3 MG).

Conveyance Cost - \$6,500,000. Based on previous cost estimates developed during the WRIA 15 Plan process. Includes ~10,000 feet of pipe, recharge basins, and a pump station.

● **Alternative 2 – Winslow Area (Satellite Treatment)**

- **Source.** This alternative assumes development of a small MBR package plant located in the central to northwest portion of the Winslow WWTP sewershed. As a satellite treatment facility, its purpose would be to capture wastewater generated in that area of the sewer system, and treat and use it locally; thereby reducing the total

wastewater flow that is conveyed to the WWTP. Solids would be transported to the WWTP for processing at that central location. One of the objectives of this alternative is to defer capacity related improvements required in the future at the WWTP. The satellite facility would be designed to treat up to approximately 85,000 gpd, to meet the primary summer irrigation uses described below. The alternative also includes groundwater recharge in an area upgradient of the Head-of-the-Bay wellfield during non-irrigation times, similar to Alternative 1c. Through these combined uses the total annual volume of reclaimed water generated would be approximately 12.9 MG (5.6 MG for irrigation and 7.3 MG for recharge). It should be noted that one of the potential challenges of this satellite treatment option is the additional operational complexities and considerations regarding management of an additional treatment facility. Such factors should be considered in the ongoing operational costs if this option is advanced and compared in more detail against centralized treatment alternatives.

Treatment Cost – Assumed to be \$9,000,000. This is based on \$6,500,000 for the MBR treatment facility (derived from an equipment cost of approximately \$2,600,000, based on a similarly sized system design for Jefferson County; with a multiplier of 2.5 to account for design, permitting, contingencies, etc.), and \$2,500,000 for the recharge basins (same as costs for recharge basins associated with Alternative 1c).

- **Uses.** The generated reclaimed water would be used for irrigation by the City water use customers identified in Table 1 (i.e., the schools and park), as well as for groundwater recharge.

Conveyance Cost – \$1,750,000. Based on ~5,000 feet of pipe (at \$350/ft).

- **Alternative 3 – Mid Island Area**

- **Source.** This alternative assumes development of a small MBR package plant, as described in Section 4, to generate approximately 13,000 gpd of average dry weather flow (or approximately 7.5 MG of reclaimed water annually).
- **Uses.** The generated reclaimed water would be used for groundwater recharge.

Treatment/Conveyance Cost – Assumed to be \$8,000,000. This is based on \$6,000,000 for the package plant and recharge basins, and \$2,000,00 for collection system piping. Costs are derived from the GSP estimates, escalated to 2022 dollars.

- **Alternative 4 – South Island Area**

- **Source.** This alternative assumes the SD7 Water Reclamation Facility is upgraded to produce reclaimed water. Alternatively, a small package plant could be built on the south part of the island, but the cost would likely be similar to or more than upgrading this existing facility. More analysis of the SD7 facility is needed to determine appropriate upgrades, but for conceptual planning purposes, it is assumed that they are similar to what would be required at Winslow, in terms of adding GAC filtration and upgrading disinfection.

Treatment Cost – Assumed to be approximately half of the Winslow WWTP upgrade costs, or \$2,300,000.

- **Uses.** The most likely use of reclaimed water in the southern portion of the island will be irrigation, as the surficial geology is likely not conducive to groundwater recharge. This alternative assumes use for irrigation of residential properties in Rockaway Beach. This could be expanded to include similar uses at Lynwood Center.

Conveyance Cost – \$4,000,000. Based on ~10,000 feet of pipe (at \$350/ft) and a pump station.

Table 2 provides a summary comparison of the above alternatives. This type of comparison can be expanded upon, with greater enumeration of benefits and challenges, once the initial list of alternatives is reviewed and refined.

Table 2. Reclaimed Water Alternative Comparison

Alternative ^a	Annual Reuse Volume (MG)	Total Capital Cost (\$M)	Cost per Annual Gallon (\$/gal) ^b	Notes/Challenges
1a – Winslow Area / Wing Point Irrigation	33.5	\$5.5	\$0.16	Requires coordination with non-City water user.
1b – Winslow Area / City Irrigation	40.8	\$12	\$0.29	Most complex/ extensive infrastructure.
1c – Winslow Area / Groundwater Recharge	7.3	\$11	\$1.51	Potential significant benefit in groundwater sustainability.
2 – Winslow Area (Satellite Treatment)	12.9	\$10.8	\$0.83	Operational challenges with multiple facilities.
3 – Mid Island	4.8	\$8.0	\$1.67	Extensive new collection system required.
4 – South Island	2.0	\$6.3	\$3.15	Extensive infrastructure to multiple users.

Notes:

- Alternative 1 refers to Centralized Treatment (i.e., upgrades to the Winslow WWTP to produce reclaimed water). The sub-alternatives relate to different uses of this same source water.
- Total Capital Cost divided by Annual Reuse Volume.

7.0 Other Considerations

As the City continues exploring the feasibility of reuse on the island, key implementation considerations to take into account, beyond technical feasibility, costs, and water quantity/quality benefits, include those described briefly below. These items will be explored in greater depth as the City advances in its planning process.

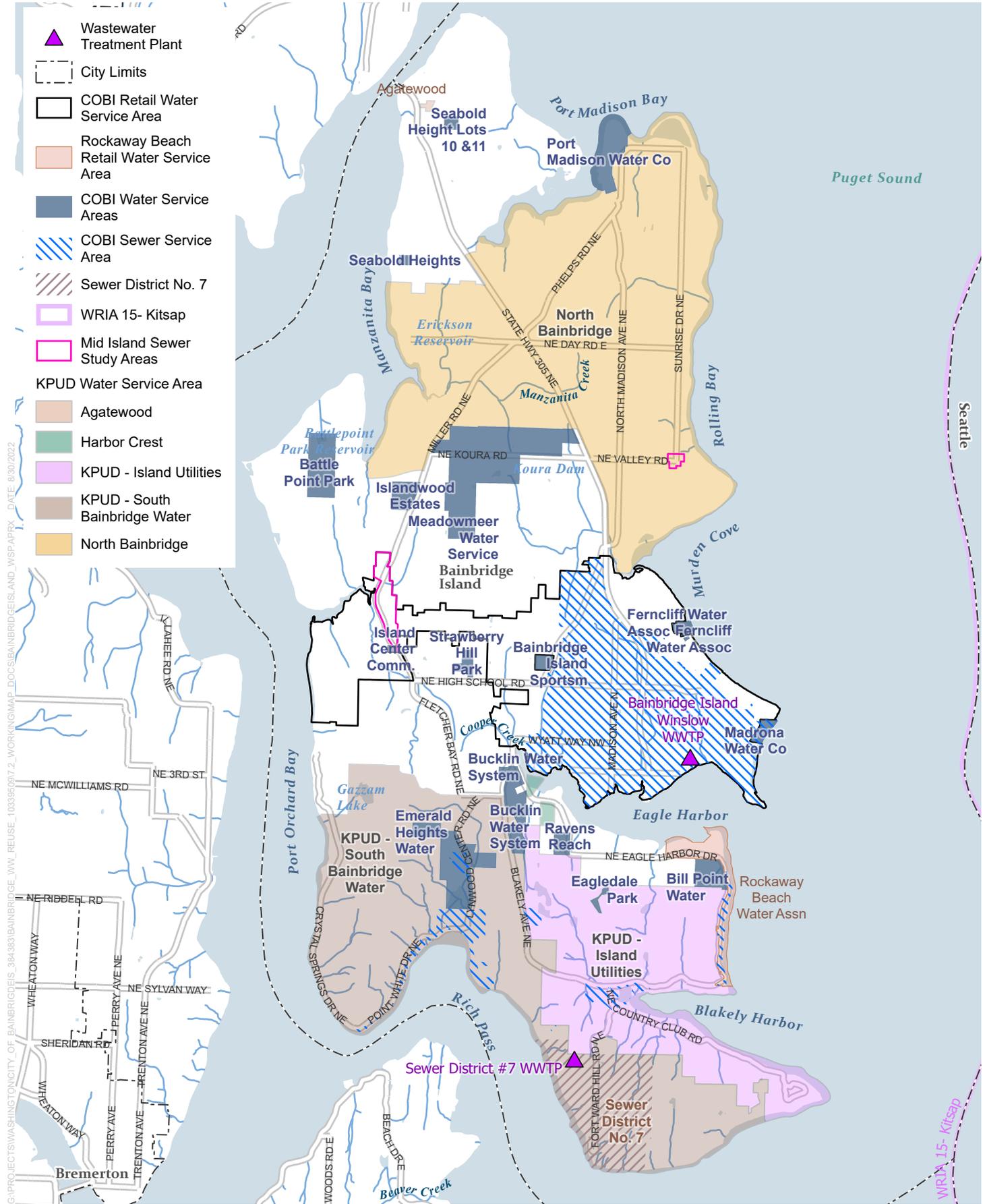
- **Regulatory Requirements.** One of the more rapidly changing elements that will shape future reclaimed water programs are water quality requirements related to currently unregulated chemicals. In particular, the water industry’s current focus on per- and polyfluoroalkyl substances (PFAS) will likely yield State or federal drinking water limits that are lower than the State Action Levels established for five PFAS compounds in 2021. As

evaluated in the City's 2021 CEC Review, this may lead to certain forms of treatment being required to produce reclaimed water suitable for purposes such as groundwater recharge or streamflow augmentation. The City can look to recent risk assessment work conducted by others in the region, such as the LOTT Clean Water Alliance and King County, to consider how these factors may inform reuse planning.

- **Funding.** As shown in the preliminary analysis summarized in Section 6, the capital investment to implement reuse can be significant and is greater than what can be realistically recouped through reclaimed water rates. Most utilities seek low-interest loans or grant money from the State or federal government to support reuse implementation. At the State level, this includes funding through the Centennial Clean Water Fund, while at the federal level this can include funding through the Title XVI (WaterSMART) program.
- **Public Outreach.** Public involvement is critical to the success of a reclaimed water program, largely connected to the above two topics. The public will want assurance that proposed reuse practices are protective of public and environmental health. In addition, the full range of benefits must be articulated so that the community can truly assess costs versus benefits, and understand how investment in reuse relates or compares to other priorities the City is facing.
- **Implementation Policies and Procedures.** Reuse programs require much more than the upfront capital infrastructure. City policies and ordinances will be needed to establish when, where, and how reclaimed water can or must be used and what the applicable rates are for customers who would use the resource. Depending on the extent of infrastructure that may be needed in the future, development standards may be required, including maintenance procedures specific to purple pipe distribution systems, water quality monitoring/reporting, and backflow prevention.

8.0 Next Steps

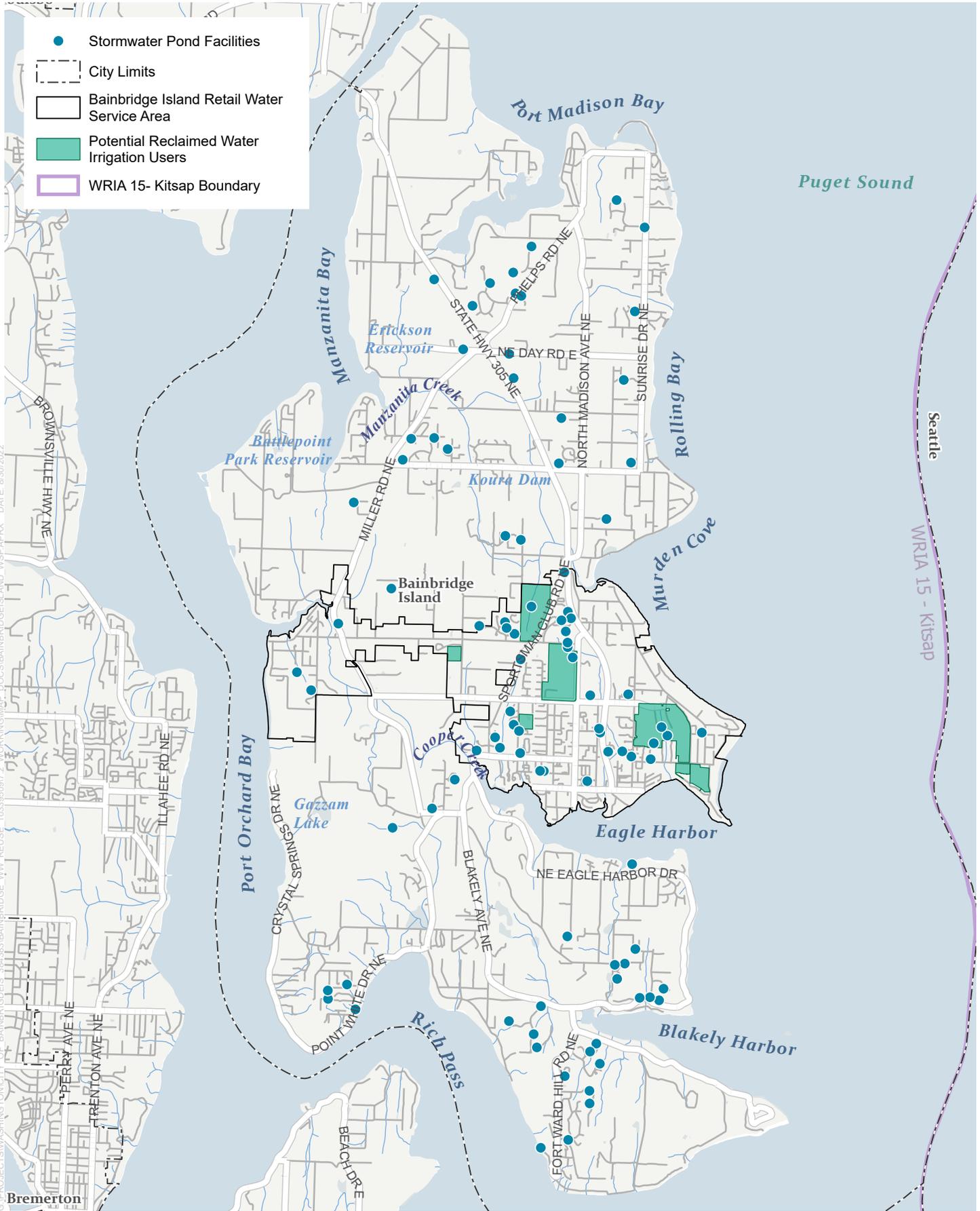
This TM provides an initial assessment of reuse needs/drivers for the City of Bainbridge Island, and identifies potential reuse opportunities and associated costs. Upon review of this preliminary information and discussion with the Utility Advisory Committee and City Council, the City will proceed with further evaluation of opportunities that have the greatest potential for implementation and which would yield the most benefit to the island.



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WATER AND SEWER SERVICE AREAS
Figure 1

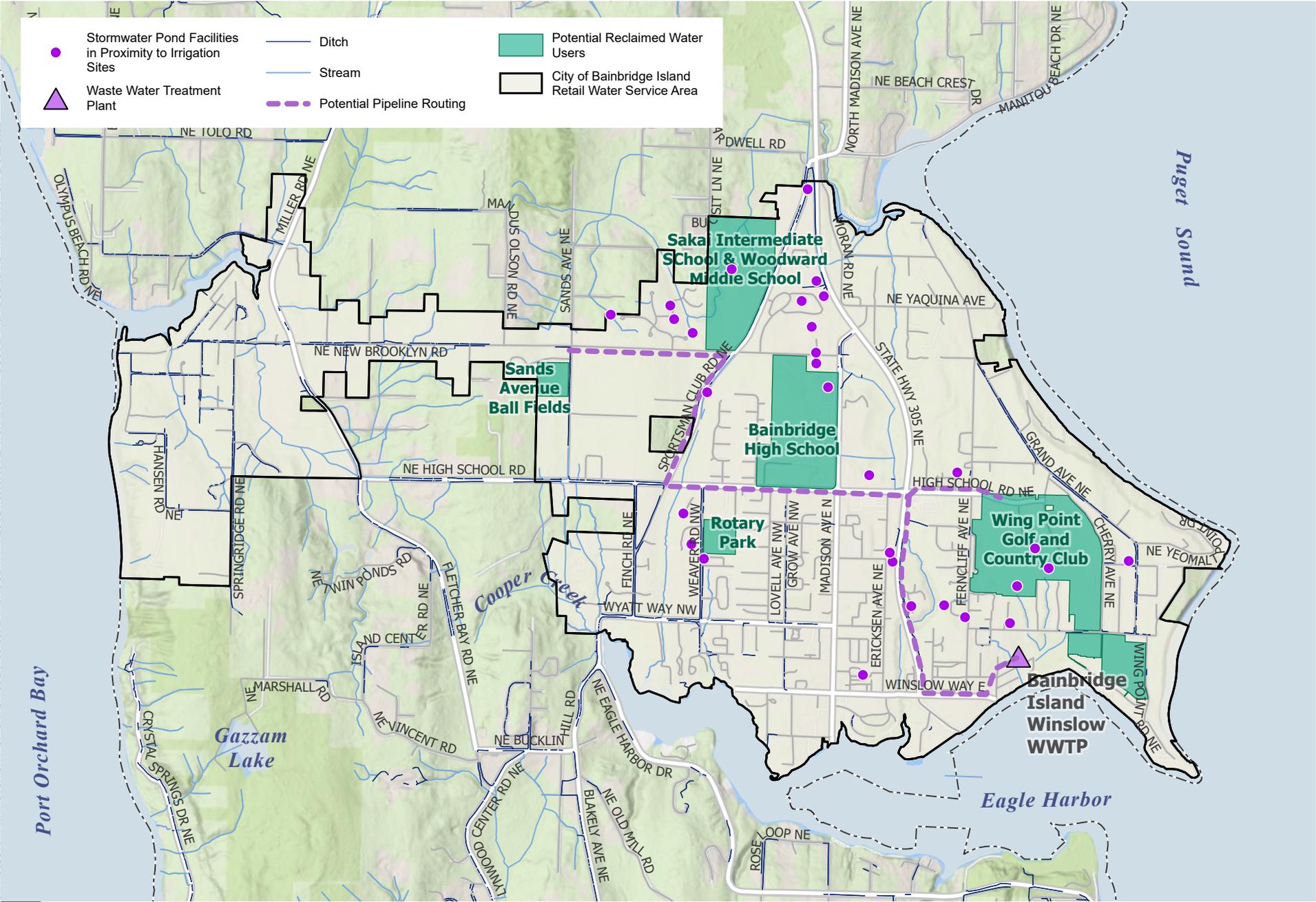


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POTENTIAL IRRIGATION AND STORMWATER POND USE LOCATIONS
Figure 2

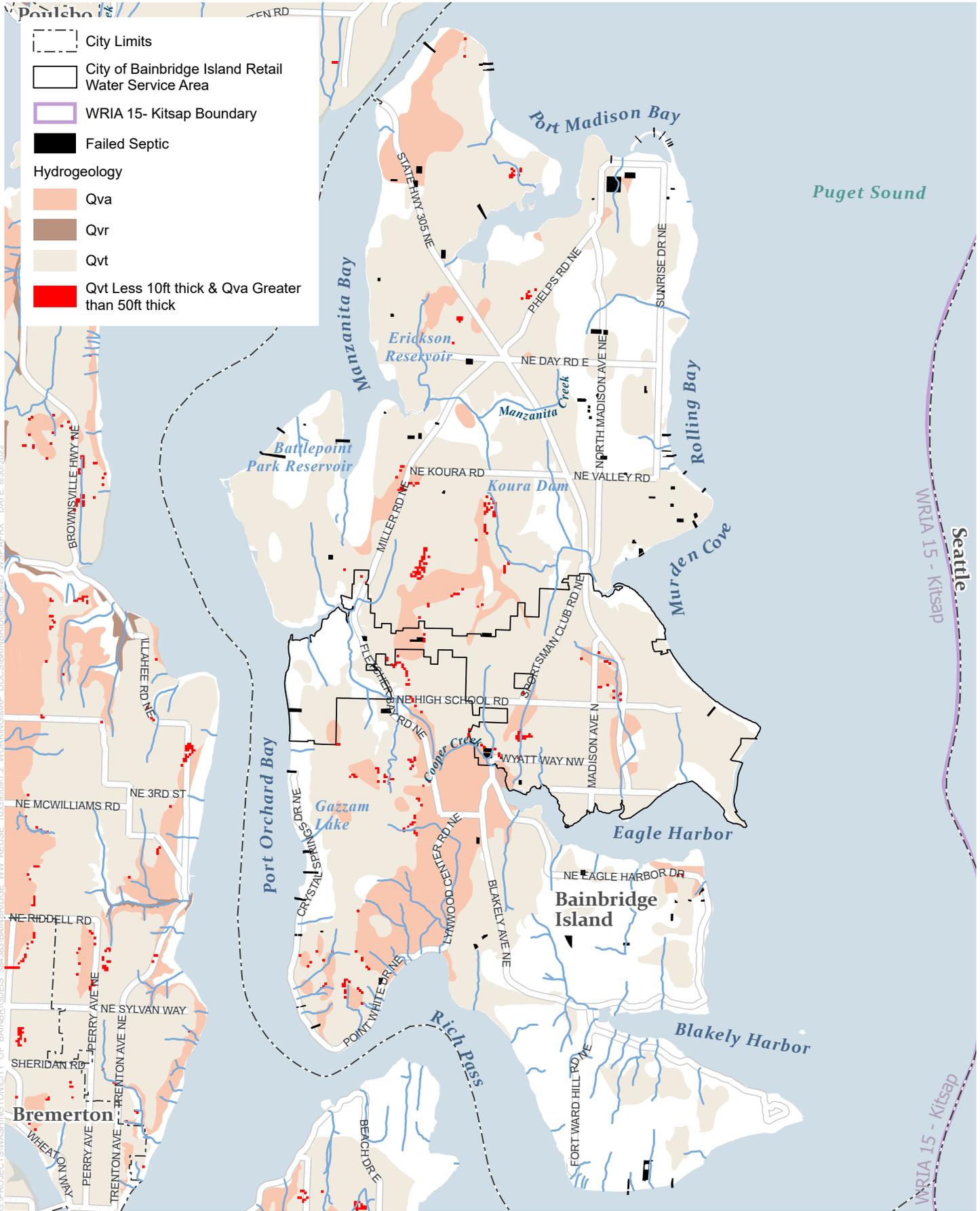
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POTENTIAL WINFLOW USE LOCATIONS AND CONCEPTUAL PIPELINE ROUTING

Figure 3





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ISLAND SURFACE HYDROGEOLOGY
Figure 4



CITY OF
BAINBRIDGE ISLAND

City Council Study Session Agenda Bill

MEETING DATE: November 15, 2022

ESTIMATED TIME: 20 Minutes

AGENDA ITEM: (7:10 PM) Discuss Public Engagement - Executive,

SUMMARY: The City of Bainbridge values public engagement and strives to include a diversity of voices in the course of City decision making. This approach draws on the expertise of the community and ensures that the City's programs and services match the community's goals.

Staff will provide an update regarding City Advisory Boards, Committees, and Commissions at the City of Bainbridge Island after a presentation earlier this year. Staff will also provide some information about the City's efforts regarding public engagement both currently and in 2023.

AGENDA CATEGORY: Discussion

PROPOSED BY: Executive

RECOMMENDED MOTION: I move to direct the City Manager to perform a further analysis of City Advisory Boards, Committees, and Commissions, and to provide a report and further recommendations related to committees and other forms of public engagement to the City Council by March 30, 2023.

STRATEGIC PRIORITY:

FISCAL IMPACT:

Amount:	
Ongoing Cost:	
One-Time Cost:	
Included in Current Budget?	

BACKGROUND: One current form of public engagement at the City of Bainbridge Island is City Advisory Boards, Committees, and Commissions (committees). The City has roughly a dozen committees, of which eight are standing advisory committees. In May, staff presented information about the committees to the Council. After that time, staff gathered additional information from a variety of sources including surveying current committee members and staff and attending sessions at professional conferences.

From a voluntary survey of current committee members and staff, we learned that both committee members and staff dedicate significant amounts of time to the committee. Time estimates ranged from 5 to 20 hours per month for staff, and 5 to 65 hours per month for committee members. A presentation at the International City and County Managers Association (ICMA) conference indicated that other cities have also reviewed their

committee structure recently, and the cases presented (Corvallis, OR and Bozeman, MT) identified approaches to reduce the number of committees. These cities also included cost estimates of \$27,000 per committee per year. City staff estimates of time arrive at similar numbers for staff costs at the City for committee support.

In addition to committees, staff plans to focus on public engagement in 2023. In cases where it is appropriate, the public engagement plans will be described on Council agenda bills.

ATTACHMENTS:

[Community Engagement Discussion for CC 11152022](#)

FISCAL DETAILS:

Fund Name(s):

Coding:



CITY OF
BAINBRIDGE ISLAND

City Engagement and Advisory Committees

November 15, 2022

Blair King, City Manager

Committee discussion follow up

May 10, 2022 Council action after staff presentation:

Directed the City Manager to monitor and present data on the impact of Commissions and Committees upon staff time and resources and present this information at a study session prior to adoption of the 2023-2024 Budget.



How should we conduct effective, efficient engagement with residents?

Adhere to the principles of the International Association for Public Participation.



2023 engagement strategy

Every Council agenda bill and staff memorandum will include information about planned public engagement.



 City Council Regular Business Meeting Agenda Bill	
<small>CITY OF BAINBRIDGE ISLAND</small>	
MEETING DATE: December 27, 2022	ESTIMATED TIME: 10 Minutes
AGENDA ITEM: Sample Agenda Item - Executive,	
SUMMARY: Council will discuss the agenda item.	
AGENDA CATEGORY: Discussion	PROPOSED BY: Executive
RECOMMENDED MOTION: Discussion only.	
COMMUNITY ENGAGEMENT AND OUTREACH:	
FISCAL IMPACT:	
	Amount:
	Ongoing Cost:
	One-Time Cost:
	Included in Current Budget?

BACKGROUND:

ATTACHMENTS:

How are we engaging the community now?

- Regular written and video communications
- Social media
- Ongoing online and in-person meetings
- Surveys
- Farmer's Market
- Standing and short-term resident committees, boards and commissions

Does the current committee structure provide effective and efficient community engagement?

Does it allow committees to serve as advisors to the City Council and effect decision making?

- Does the public use existing Advisory Boards and Committees to engage on topics of interest to the community?
- Is the community accurately represented through the membership of the Advisory Boards and Committees?
- Does the public and Advisory Boards and Committees understand the decision-making process?
- Is the staff time spent supporting Advisory Boards and Committees being used to its greatest benefit to the City?

Does the public use existing Advisory Boards and Committees to engage on topics of interest to the community?

- Except Planning Commission, the average number of visitors per meeting to Advisory Boards and Commissions is very low.
 - Most meetings have no members of the public in attendance in person or online.
 - Some meetings have between 1 and 5 members of the public in attendance, usually consistent visitors.
 - Occasionally, meetings have up to 10 members of the public in attendance.

Is the community accurately represented through the membership of the Advisory Boards and Committees?

- Most committees have a large number of applicants when they are new, then the number of applicants decreases in subsequent years.
- In 2022, more than half of the committees had either exactly enough applicants or not enough applicants to fill vacant positions.

Is the staff time spent supporting Advisory Boards and Committees being used to its greatest benefit to the City?

- Costs: The City of Corvallis, OR estimates \$28,117 as the annual average cost to staff a committee.
- Costs: City of Bainbridge Island
 - Staff estimates 5 – 20 hours per month per standing committee (8), task forces and other commissions (5).
 - Estimates are at or above Corvallis range, including staff for meetings, Information Technology, Communications, recruitment, etc.

Recommendations

1. Request staff to prepare further analysis of Advisory Boards and Committees
2. Consider types of committees and their roles at the City
 - Policy Advisory Board to the City Council
 - Technical Advisory Committee to City staff
3. Develop policies/procedures for different types of committees
4. Consider alternative forms of public engagement
 - Short term task force
 - Ad hoc Blue Ribbon committees
5. Expand types of public engagement
6. Note Public Engagement Plan on all initiatives presented to the Council
7. Consider scheduled sunset review dates for committees
8. Consider standardizing meeting minutes and meeting schedules

