



CAPITAL INFRASTRUCTURE FUNDING SURVEY 2022

REPORT OF RESULTS

JUNE 2022



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SURVEY BACKGROUND

The City of West Linn contracted with Polco/National Research Center (NRC) to conduct a community-wide survey to assess resident opinions about potential infrastructure projects and related funding possibilities.

The survey questions were developed in an iterative process between City and Polco staff and programmed on Polco for residents to respond online.

SURVEY ADMINISTRATION

To help ensure representative outreach, postcard survey invitations were mailed to 4,000 randomly selected West Linn households. Each postcard included a web link and instructions to go online to complete the survey. The two postcard invitations (initial and reminder) were mailed approximately one week apart at the beginning of May 2022.

A total of 676 residents completed a survey between May 12th and June 10th, 2022, yielding a response rate of 18%. The resulting margin of error is plus or minus four percentage points around any given percentage for questions answered by all respondents (N=676).

Survey results were weighted so that respondent gender, age, race, housing unit type (attached or detached) and housing tenure (rent or own) were represented in the proportions reflective of the Census for the entire city. More information about the survey methodology can be found in *Appendix E: Survey Methodology*.

Separately, the City led an outreach effort to allow all residents who were not selected for the address-sample survey to respond to an open participation survey. The open participation survey included the same questions, but responses were tracked separately. The City was successful in reaching residents through multiple communication channels and there were 908 responses to this community-wide effort.

HOW THE RESULTS ARE REPORTED

Results for each of the evaluative questions are summarized in charts and text in the body of this report and further details are provided in tables in the appendices. Results of the demographic questions are only reported in the appendices.

On many of the questions in the survey, respondents could give an answer of “don’t know.” The charts in the report body generally include the “don’t know” responses. In *Appendix B: Complete Survey Frequencies*, two frequency tables are presented: the first includes and the second excludes the “don’t know” option. The latter allows the reader to assess the results for “only those who had an opinion.”

In some tables, the percentages may not sum to 100%, this is either because the question permitted the respondent to “choose all that apply” or for a question that asked the respondent to “choose one” it is due to the customary practice of rounding values to the nearest whole number.

COMPARISON BY RESPONDENT SUBGROUPS AND OUTREACH METHODS

Survey results were compared by geographic area as well as respondent demographics (housing unit type, housing tenure, income, age, and electoral engagement). These cross tabulations are presented in tabular form in *Appendix C: Responses to Survey Questions by Respondent*

Characteristics and are discussed throughout the body of the report. Statistically significant differences between subgroups are noted in the tables.

For ease of presentation and comprehension, the “percent positive” is used for comparisons in *Appendix C: Responses to Survey Questions by Respondent Characteristics* and *Appendix D: Address-Based vs. Open Participation Outreach*. The percent positive is the combination of the top two most positive response options (i.e., “excellent and good,” “strongly support and somewhat support”).

Twelve neighborhood areas were tracked in the address-based survey. When analyzing the results by geography, some areas had to be combined to have enough cases in each subgroup to create robust comparisons.

As detailed above, there were two outreach efforts. The postcard mailings to a randomly selected address-based sample and an open participation effort where respondents were recruited through the City’s various communication channels. Results for the address-based sample are compared to the results of the open participation outreach effort in *Appendix D: Address-Based vs. Open Participation*.

SURVEY RESULTS

CURRENT KNOWLEDGE OF INFRASTRUCTURE PROJECTS

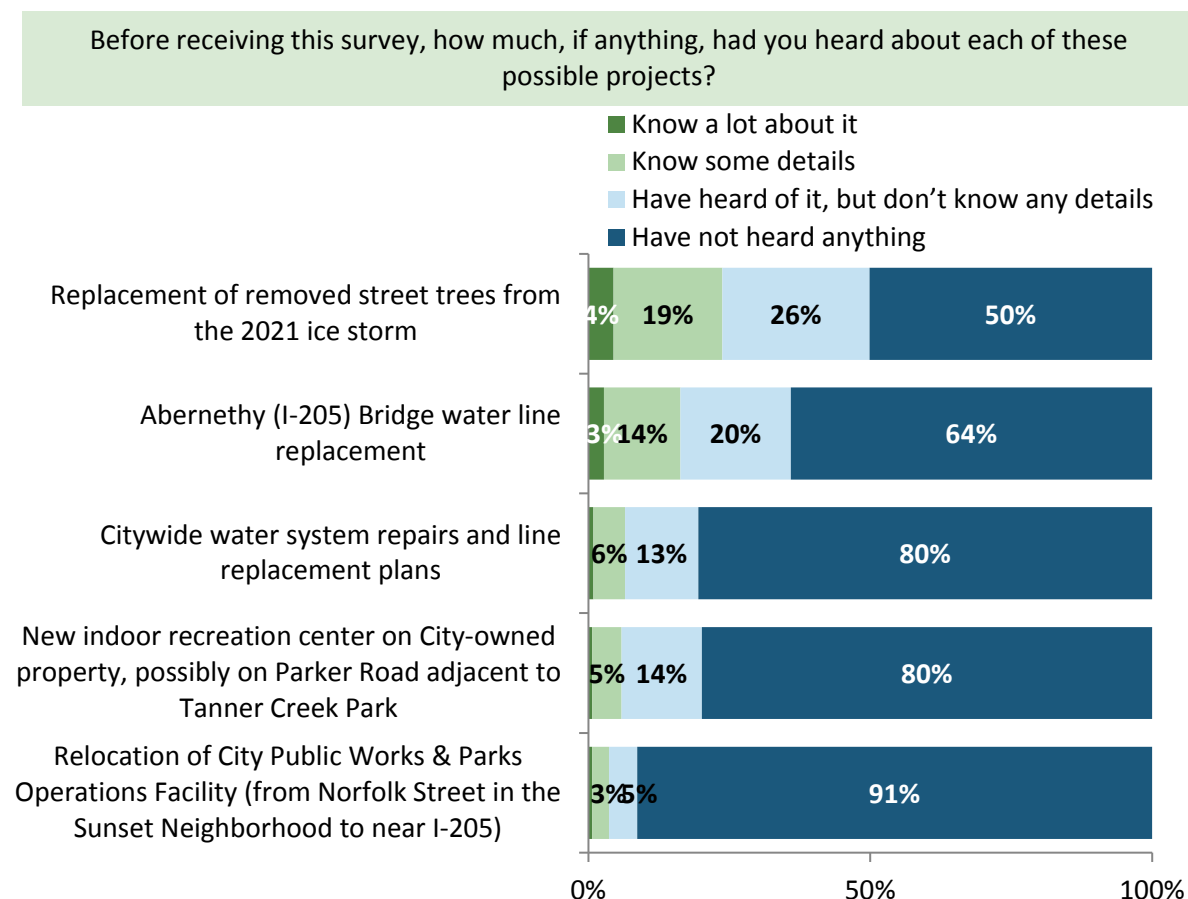
The survey began with a question to assess the awareness level of residents related to five potential projects: the replacement of removed trees from the 2021 ice storm; the Abernethy (I-205) Bridge water line replacement; the relocation of the City Public Works & Parks Operations Facility; a new indoor recreation center on City-owned property; and citywide water system repairs and line replacement plans.

While about half of respondents had at least heard about the tree replacement a large majority of the residents had not yet heard about the other potential projects.

The best-known projects were the replacement of removed trees from the 2021 ice storm, where 50% of the residents had at least heard about it and 23% knew some or a lot of details; and the Abernethy (I-205) bridge water line replacement, which 36% of the residents had at least heard about and 17% knew more.

Comparisons by respondent characteristics revealed that homeowners, those over 54 years old and those living in detached units tended to have more information regarding the infrastructure projects. Also, residents in Savanna Oaks/BHT (Barrington Heights, Hidden Creek Estates, & Tanner Woods Subdivisions) area tended to have more information regarding the tree replacement project while Hidden Spring’s neighbors tended to know more about the citywide water system repairs (see Appendix C: Responses to Survey Questions by Respondent Characteristics).

FIGURE 1: KNOWLEDGE OF CURRENT INFRASTRUCTURE PROJECTS



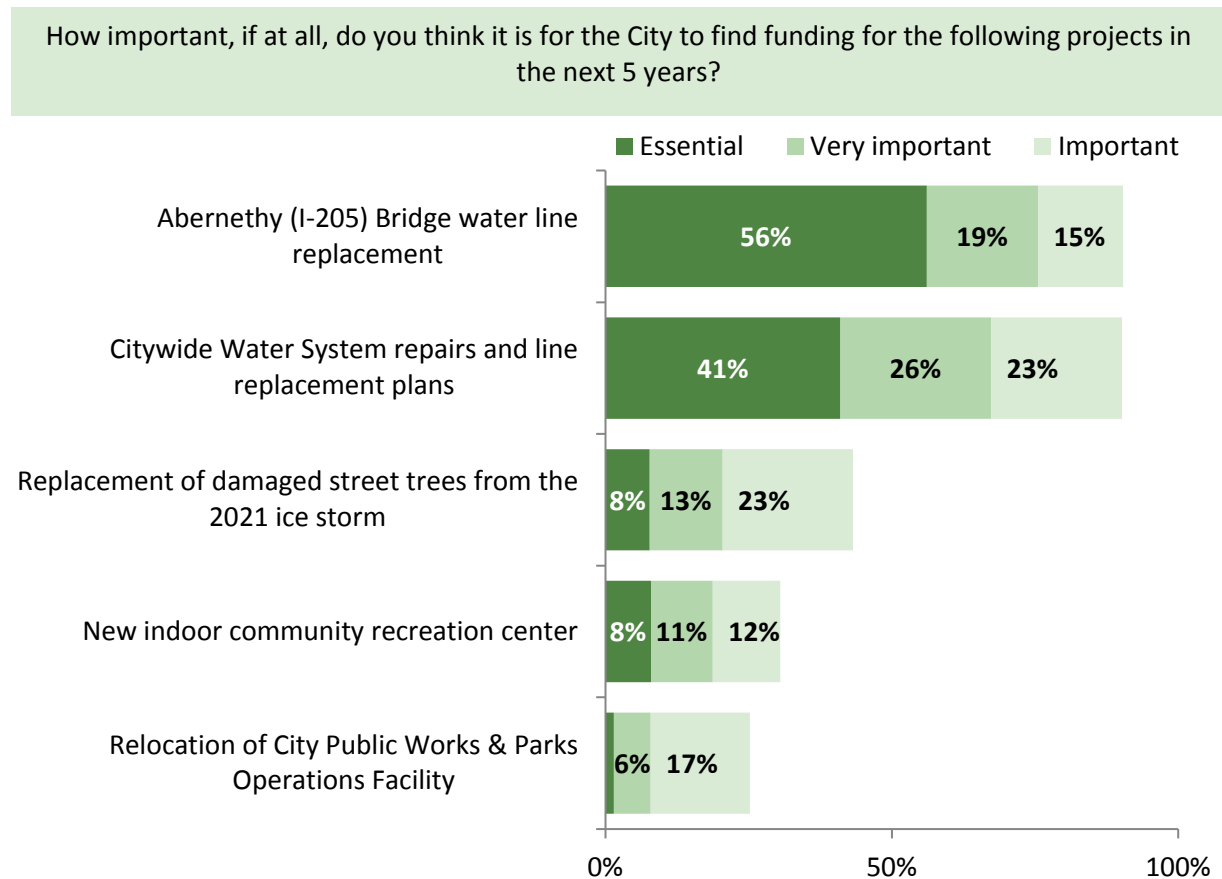
IMPORTANCE OF FINDING PROJECTS’ FUNDING

After a short briefing about the projects, respondents were asked how important they thought it was for the City to find funding for each project. The funding of the Abernethy (I-205) Bridge water line replacement was considered most important; 56% said it was essential while 90% said it was at least important. Just a little behind in terms of importance was the citywide Water System repairs and line replacement funding, which was considered essential by 41% of the residents and at least important by 90% of respondents. Replacing the ice-damaged trees was third in importance and was essential to 8% and at least important to 44%. Of least importance to residents was a new indoor community recreation center or relocating the operations facility.

Residents 34 years old or younger assigned more importance than older residents to finding funding for the replacement of damaged street trees from the 2021 ice storm. Meanwhile, respondents aged 35-54 deemed the funding of a new indoor community recreation center as more important compared to other residents. Finally, more residents 35 and older than younger residents thought the relocation of the City Public Works & Parks Operations Facility was important.

Analyzed by area, residents of Hidden Springs tended to give more importance to the relocation of the City Facility and the Abernethy (I-205) Bridge water line replacement (see *Appendix C: Responses to Survey Questions by Respondent Characteristics*).

FIGURE 2: IMPORTANCE OF INFRASTRUCTURE PROJECT’S FUNDING



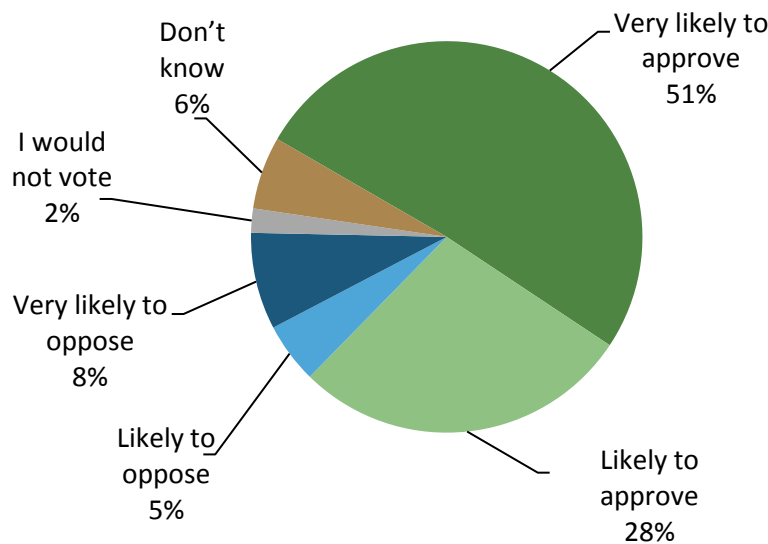
ABERNETHY (I-205) BRIDGE WATER LINE FUNDING

Survey respondents were asked to report their level of support or opposition towards passing a bond measure to cover the estimated \$14 million cost for the Abernethy (I-205) Bridge Water Line Replacement in the November 2022 ballot. About 8 in 10 respondents said they would be “likely” or “very likely” to approve such a measure, while just 1 in 10 said they would be “likely” or “very likely” to oppose it.

When results were compared by respondent characteristics, residents’ support was equally distributed by age, household tenure, household unit type, electoral engagement and area. The only statistically significant difference was found for households making more than \$100,000 a year, which were more likely to support the bond measure than residents in households making less money (see *Appendix C: Responses to Survey Questions by Respondent Characteristics*).

FIGURE 3: SUPPORT FOR A BOND MEASURE FOR ABERNETHY WATER LINE REPLACEMENT

If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?

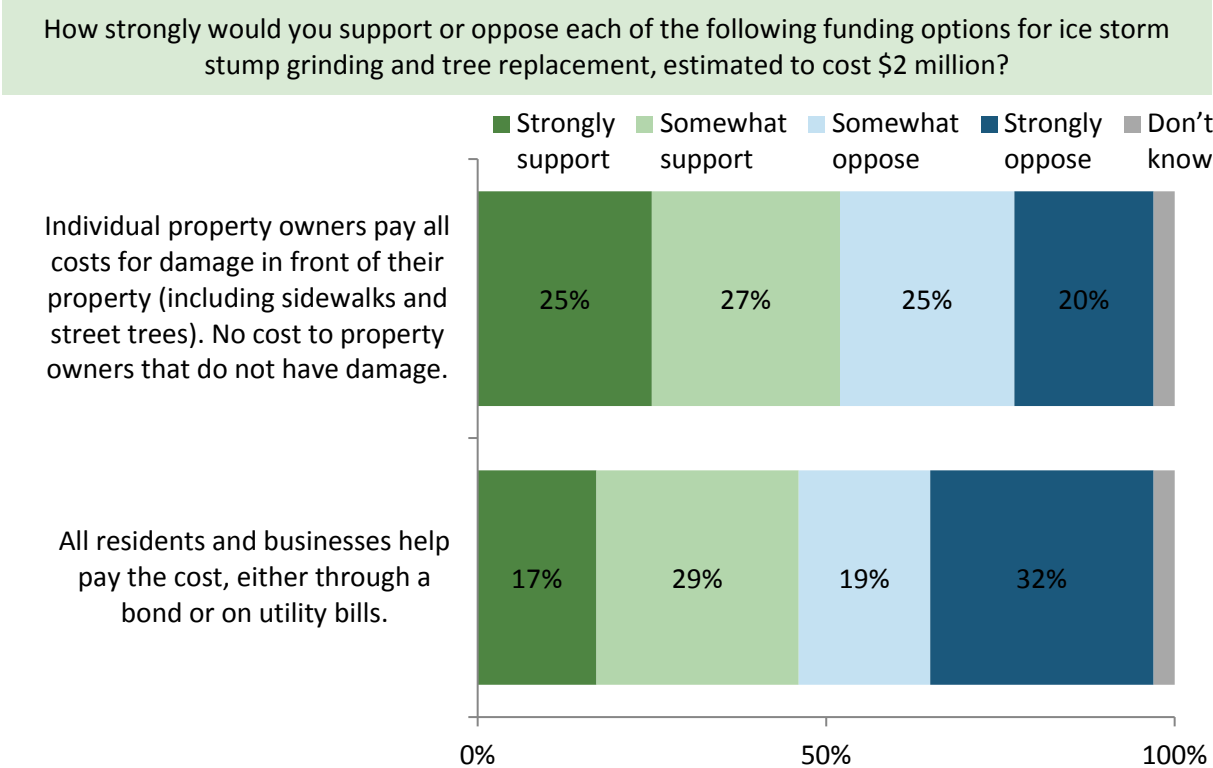


STUMP GRINDING AND TREE REPLACEMENT FUNDING

Survey respondents were also asked to report their level of support or opposition for two funding options for ice storm stump grinding and tree replacement. Fifty-two percent of respondents reported they would “strongly” or “somewhat” support having individual property owners pay all costs for damage in front of their property (including sidewalks and street trees), while forty-six percent said they would “strongly” or “somewhat” support having all residents and businesses help pay the cost, either through a bond or on utility bills. Although the overall proportion of support were similar for both funding options, the collective payment got more “strong” opposition while the individual payment got more “strong support”.

The option to have all residents and businesses help pay the cost tended to be preferred by residents aged 34 and younger, while property owners taking care of the costs tended to be most chosen by residents aged 35 and up. For the remaining demographic and geographic variables respondent’ support was generally similar across groups (see *Appendix C: Responses to Survey Questions by Respondent Characteristics*).

FIGURE 4: FUNDING OPTIONS’ SUPPORT FOR STUMP GRINDING AND TREE REPLACEMENT

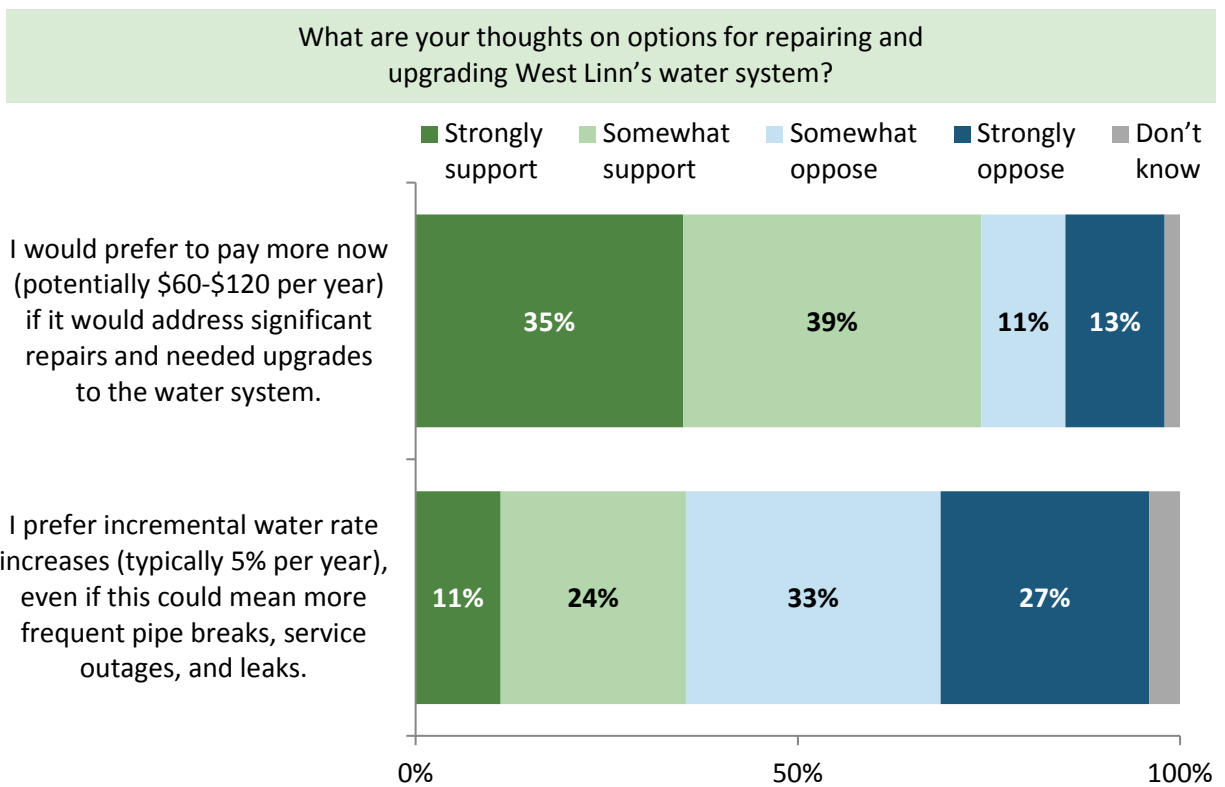


FUNDING OPTIONS FOR UPGRADING THE WATER SYSTEM

Regarding options for repairing and upgrading West Linn’s water system, three out of four respondents “strongly” or “somewhat” supported an immediate increase in the utility bill of about \$60 to \$120 per year if it would address significant repairs and needed upgrades to the water system. On the other hand, only one out of three residents “strongly” or “somewhat” supported an incremental water rate increases of about 5% per year if this could mean more frequent pipe breaks, service outages, and leaks.

Incremental increases tended to be more supported among respondents aged 35 and up, while immediate increases got more support among residents in households making \$100,000 or more per year (see *Appendix C: Responses to Survey Questions by Respondent Characteristics*).

FIGURE 5: FUNDING OPTIONS’ SUPPORT FOR UPGRADING THE WATER SYSTEM



RELOCATION OF THE PUBLIC WORKS FACILITY

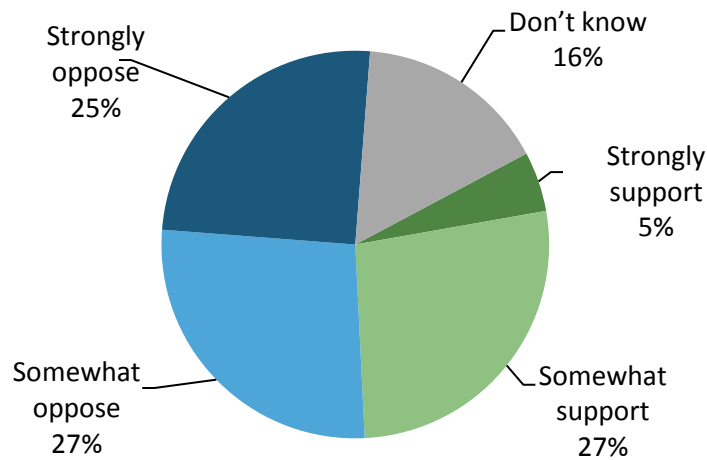
About half of the residents in West Linn (52%) “strongly” or “somewhat” opposed the idea of building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood. About one-third of respondents (32%) “strongly” or “somewhat” supported the move and the remaining did not have an opinion (16%).

Among the group of residents who opposed the project, opinions were equally divided between those who opposed it strongly and those who opposed it moderately, while in the group that supported the relocation, the level of support tended to be moderate.

Support was stronger among residents aged 55 years and older. When results were compared by the remaining respondent characteristics, residents’ support was similar across household tenure, household unit type, household income, electoral engagement and area of residence. (see *Appendix C: Responses to Survey Questions by Respondent Characteristics*).

FIGURE 6: SUPPORT FOR RELOCATING THE PUBLIC WORKS-PARKS OPERATIONS FACILITY

How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?



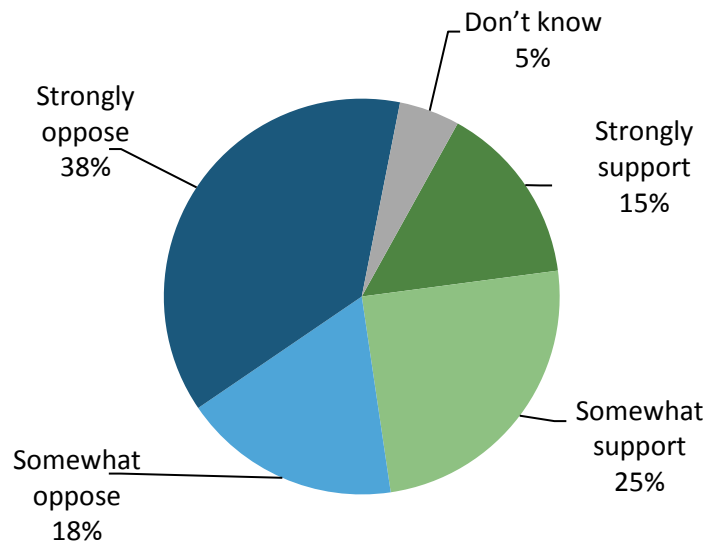
FUNDING FOR A NEW INDOOR RECREATION CENTER

Close to 6 in 10 residents in West Linn (56%) “strongly” or “somewhat” opposed the idea of creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home) to fund the construction of a new indoor recreation center. The ones who opposed the measure tended to do it strongly (38%) rather than moderately (18%). Meanwhile, 4 in 10 respondents “strongly” (15%) or “somewhat” (25%) supported the issuance of such a bond.

Support for the bond measure was higher among residents aged 54 or younger than among older residents. It was also higher among renters than homeowners, and among residents living in households that make \$100,000 or more per year. When analyzed by area, residents of Marylhurst and Skyline Ridge tend to give higher support to the measure than their neighbors from Willamette; Savanna Oaks/BHT; Sunset, Parker Crest and Rosemont Summit; Bolton; and Robinwood (see *Appendix C: Responses to Survey Questions by Respondent Characteristics*).

FIGURE 7: SUPPORT FOR A BOND MEASURE TO CONSTRUCT OF A NEW INDOOR RECREATION CENTER

How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center, possibly on Parker Road adjacent to Tanner Creek Park?



APPENDIX A: RESPONDENT CHARACTERISTICS (ADDRESS-BASED SAMPLE)

The following tables summarize the demographic characteristics of West Linn capital infrastructure funding survey respondents.

TABLE 1: GENDER

What is your gender	Percent	Number
Female	51%	N=330
Male	47%	N=304
Identify another way	1%	N=8
Total	100%	N=642

TABLE 2: HOUSEHOLD INCOME

How much do you anticipate your household's total income before taxes will be for the current year?	Percent	Number
Less than \$25,000	2%	N=10
\$25,000-\$49,999	7%	N=40
\$50,000-\$74,999	14%	N=86
\$75,000-\$99,999	12%	N=71
\$100,000-\$149,999	23%	N=136
\$150,000-\$199,999	14%	N=82
\$200,000 or more	29%	N=175
Total	100%	N=601

TABLE 3: PRESENCE OF CHILDREN

Are you or any other members of your household aged 17 or younger?	Percent	Number
No	59%	N=387
Yes	41%	N=266
Total	100%	N=654

TABLE 4: PRESENCE OF OLDER ADULTS

Are you or any other members of your household aged 65 or older?	Percent	Number
No	70%	N=457
Yes	30%	N=197
Total	100%	N=655

TABLE 5: HOUSING TENURE

Do you rent or own your home?	Percent	Number
Rent	16%	N=108
Own	84%	N=553
Total	100%	N=661

TABLE 6: HOUSING UNIT TYPE

Which best describes the building you live in?	Percent	Number
One family house detached from any other houses	82%	N=546
Building with two or more homes (duplex, townhome, apartment or condominium)	17%	N=113
Mobile home	1%	N=5
Other	0%	N=0
Total	100%	N=663

TABLE 7: AGE

In which category is your age?	Percent	Number
17 years or younger	0%	N=0
18-24	1%	N=9
25-34	14%	N=87
35-44	18%	N=112
45-54	28%	N=180
55-64	13%	N=86
65-74	18%	N=112
75+	8%	N=51
Total	100%	N=637

TABLE 8: RACE

What is your race?	Percent*	Number*
American Indian or Alaskan Native	1%	N=5
Asian, Asian Indian or Pacific Islander	3%	N=17
Native Hawaiian or other Pacific Islander	2%	N=12
Black or African American	0%	N=1
White	92%	N=548
A race not listed	4%	N=22

Total may exceed 100% as respondents could select more than one answer.

TABLE 9: ETHNICITY

Are you of Hispanic, Latino/a/x, or Spanish origin?	Percent	Number
No, not Spanish, Hispanic or Latino	96%	N=553
Yes, I consider myself to be Spanish, Hispanic or Latino	4%	N=25
Total	100%	N=578

TABLE 10: VOTING REGISTRATION

Are currently registered to vote in Clackamas County?	Percent	Number
No	2%	N=15
Yes	98%	N=653
Total	100%	N=668

TABLE 11: ELECTORAL TURNOUT

Voted in your most recent local election?	Percent	Number
No	11%	N=72
Yes	89%	N=591
Total	100%	N=663

APPENDIX B: COMPLETE SURVEY FREQUENCIES (ADDRESS-BASED SAMPLE)

The following pages contain a complete set of responses to each question on the survey, including and excluding the “don’t know” responses.

TABLE 12: QUESTION #1

Before receiving this survey, how much, if anything, had you heard about each of these possible projects?	Know a lot about it		Know some details		Have heard of it, but don't know any details		Have not heard anything		Total	
	%	N	%	N	%	N	%	N	%	N
Abernethy (I-205) Bridge water line replacement	3%	N=18	14%	N=90	20%	N=130	64%	N=427	100%	N=666
Replacement of removed street trees from the 2021 ice storm	4%	N=29	19%	N=128	26%	N=172	50%	N=331	100%	N=661
Citywide water system repairs and line replacement plans	1%	N=6	6%	N=37	13%	N=86	80%	N=533	100%	N=662
Relocation of City Public Works & Parks Operations Facility (from Norfolk Street in the Sunset Neighborhood to near I-205)	1%	N=5	3%	N=20	5%	N=33	91%	N=609	100%	N=667
New indoor recreation center on City-owned property, possibly on Parker Road adjacent to Tanner Creek Park	1%	N=5	5%	N=35	14%	N=95	80%	N=532	100%	N=666

TABLE 13: QUESTION #2

How important, if at all, do you think it is for the City to find funding for the following projects in the next 5 years?	Essential		Very important		Important		Somewhat important		Not at all important		Total	
	%	N	%	N	%	N	%	N	%	N	%	N
Abernethy (I-205) Bridge water line replacement	56%	N=372	19%	N=129	15%	N=99	6%	N=37	4%	N=27	100%	N=664
Replacement of damaged street trees from the 2021 ice storm	8%	N=52	13%	N=85	23%	N=152	26%	N=176	30%	N=204	100%	N=670
Citywide Water System repairs and line replacement plans	41%	N=275	26%	N=176	23%	N=153	8%	N=54	2%	N=11	100%	N=670
Relocation of City Public Works & Parks Operations Facility	1%	N=10	6%	N=43	17%	N=115	37%	N=247	38%	N=251	100%	N=665
New indoor community recreation center	8%	N=53	11%	N=73	12%	N=79	25%	N=170	44%	N=297	100%	N=672

TABLE 14: QUESTION #3 - INCLUDING DON'T KNOW RESPONSES

If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?	Percent	Number
Very likely to approve	51%	N=343
Likely to approve	28%	N=191
Likely to oppose	5%	N=34
Very likely to oppose	8%	N=55
I would not vote/usually don't vote	2%	N=14
Don't know/no opinion	6%	N=38
Total	100%	N=674

TABLE 15: QUESTION #3 - EXCLUDING DON'T KNOW RESPONSES

If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?	Percent	Number
Very likely to approve	54%	N=343
Likely to approve	30%	N=191
Likely to oppose	5%	N=34
Very likely to oppose	9%	N=55
I would not vote/usually don't vote	2%	N=14
Total	100%	N=636

TABLE 16: QUESTION #4 - INCLUDING DON'T KNOW RESPONSES

How strongly would you support or oppose each of the following funding options for ice storm stump grinding and tree replacement, estimated to cost \$2 million?	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Don't know		Total	
Individual property owners pay all costs for damage in front of their property (including sidewalks and street trees). No cost to property owners that do not have damage.	25%	N=162	27%	N=178	25%	N=161	20%	N=130	3%	N=19	100%	N=650
All residents and businesses help pay the cost, either through a bond or on utility bills.	17%	N=108	29%	N=183	19%	N=123	32%	N=207	3%	N=20	100%	N=641

TABLE 17: QUESTION #4 - EXCLUDING DON'T KNOW RESPONSES

How strongly would you support or oppose each of the following funding options for ice storm stump grinding and tree replacement, estimated to cost \$2 million?	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Total	
Individual property owners pay all costs for damage in front of their property (including sidewalks and street trees). No cost to property owners that do not have damage.	26%	N=162	28%	N=178	25%	N=161	21%	N=130	100%	N=630
All residents and businesses help pay the cost, either through a bond or on utility bills.	17%	N=108	29%	N=183	20%	N=123	33%	N=207	100%	N=621

TABLE 18: QUESTION #5 - INCLUDING DON'T KNOW RESPONSES

What are your thoughts on options for repairing and upgrading West Linn's water system?	Strongly agree		Somewhat agree		Somewhat disagree		Strongly disagree		Don't know		Total	
I prefer incremental water rate increases (typically 5% per year), even if this could mean more frequent pipe breaks, service outages, and leaks.	11%	N=70	24%	N=149	33%	N=201	27%	N=168	4%	N=26	100%	N=614
I would prefer to pay more now (potentially \$60-\$120 per year) if it would address significant repairs and needed upgrades to the water system.	35%	N=232	39%	N=254	11%	N=73	13%	N=85	2%	N=14	100%	N=658

TABLE 19: QUESTION #5 - EXCLUDING DON'T KNOW RESPONSES

What are your thoughts on options for repairing and upgrading West Linn's water system?	Strongly agree		Somewhat agree		Somewhat disagree		Strongly disagree		Total	
I prefer incremental water rate increases (typically 5% per year), even if this could mean more frequent pipe breaks, service outages, and leaks.	12%	N=70	25%	N=149	34%	N=201	29%	N=168	100%	N=588
I would prefer to pay more now (potentially \$60-\$120 per year) if it would address significant repairs and needed upgrades to the water system.	36%	N=232	39%	N=254	11%	N=73	13%	N=85	100%	N=644

TABLE 20: QUESTION #6 - INCLUDING DON'T KNOW RESPONSES

How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?	Percent	Number
Strongly support	5%	N=32
Somewhat support	27%	N=180
Somewhat oppose	27%	N=184
Strongly oppose	25%	N=169
Don't know	16%	N=107
Total	100%	N=673

TABLE 21: QUESTION #6 - EXCLUDING DON'T KNOW RESPONSES

How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?	Percent	Number
Strongly support	6%	N=32
Somewhat support	32%	N=180
Somewhat oppose	33%	N=184
Strongly oppose	30%	N=169
Total	100%	N=566

TABLE 22: QUESTION #7 - INCLUDING DON'T KNOW RESPONSES

How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center, possibly on Parker Road adjacent to Tanner Creek Park?	Percent	Number
Strongly support	15%	N=102
Somewhat support	25%	N=167
Somewhat oppose	18%	N=120
Strongly oppose	38%	N=253
Don't know	5%	N=31
Total	100%	N=674

TABLE 23: QUESTION #7 - EXCLUDING DON'T KNOW RESPONSES

How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center....?	Percent	Number
Strongly support	16%	N=102
Somewhat support	26%	N=167
Somewhat oppose	19%	N=120
Strongly oppose	39%	N=253
Total	100%	N=642

APPENDIX C: RESPONSES TO SURVEY QUESTIONS BY RESPONDENT CHARACTERISTICS (ADDRESS-BASED SAMPLE)

UNDERSTANDING THE TABLES

For most of the questions, for ease of comparison, responses have been condensed to show only the proportion of respondents selecting specific response options; for example, the percent of respondents who gave an evaluation of “excellent” or “good”, or who were “very familiar” or “somewhat familiar” with an item.

Chi-square or ANOVA tests of significance were applied to these breakdowns of survey questions. A “p-value” of 0.05 or less indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of the sample represent “real” differences among those populations. As subgroups vary in size and each group (and each comparison to another group) has a unique margin of error, statistical testing is used to determine whether differences between subgroups are statistically significant.

For each pair or set of subgroup ratings within a row (a single question item) that has a statistically significant difference, an upper-case letter denoting significance is shown in the cell with the larger column proportion. The letter denotes the subgroup with the smaller column proportion from which it is statistically different. Subgroups that have no upper-case letter denotation in their column and that are also not referred to in any other column were not statistically different.

For example, on the next page, respondents who were 55 years old or older (designated as Columns C) gave higher ratings for having heard of the Abernethy (I-205) Bridge water line replacement than did those who were 18 to 34 years old (designated as Column A) and 35-54 (designated as Column B), indicated by the “A” and the “B” found in the cells for respondents aged 55 or older. However, the differences between those aged 35 to 54 years and those 34 and younger were not significant, as there is no letter A or B in those cells.

In many cases, survey results are displayed for subgroups within two characteristics, e.g., within age and housing unit type. The lettering of the columns begins again on the next characteristic. So age 18 to 34 years old is Column A, followed by 35 to 54 years old in Column B and 55+ years old in Column C and then detached houses is Column A again and attached houses is Column B. The letters in the cells only refer to differences between subgroups within that characteristic, not to differences within the other characteristic.

COMPARISONS BY AGE AND HOUSING UNIT TYPE

TABLE 24: QUESTION #1 BY AGE AND UNIT TYPE

Before receiving this survey, how much, if anything, had you heard about each of these possible projects?	34 or younger	35-54	55 or older	Detached	Attached
(Percent "Know a lot about it" or "Know some details")	(A)	(B)	(C)	(A)	(B)
Abernethy (I-205) Bridge water line replacement	8%	12%	24% A B	18% B	7%
Replacement of removed street trees from the 2021 ice storm	31%	22%	24%	25%	19%
Citywide water system repairs and line replacement plans	9%	4%	10% B	8% B	2%
Relocation of City Public Works & Parks Operations Facility (from Norfolk Street in the Sunset Neighborhood to near I-205)	0%	4%	5% A	4% B	0%
New indoor recreation center on City-owned property, possibly on Parker Road adjacent to Tanner Creek Park	10%	4%	7%	6%	4%

TABLE 25: QUESTION #2 BY AGE AND UNIT TYPE

How important, if at all, do you think it is for the City to find funding for the following projects in the next 5 years? (Percent "Essential" or "Very important")	34 or younger (A)	35-54 (B)	55 or older (C)	Detached (A)	Attached (B)
Abernethy (I-205) Bridge water line replacement	71%	74%	79%	76%	77%
Replacement of damaged street trees from the 2021 ice storm	32% B C	21%	18%	22%	16%
Citywide Water System repairs and line replacement plans	70%	65%	71%	68%	67%
Relocation of City Public Works & Parks Operations Facility	0%	8% A	11% A	8%	5%
New indoor community recreation center	10%	27% A C	14%	19%	15%

TABLE 26: QUESTION #3 BY AGE AND UNIT TYPE

Percent "Very likely to approve" or "Likely to approve"	34 or younger	35-54	55 or older	Detached	Attached
	(A)	(B)	(C)	(A)	(B)
If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?	86%	87%	86%	85%	90%

TABLE 27: QUESTION #4 BY AGE AND UNIT TYPE

How strongly would you support or oppose each of the following funding options for ice storm stump grinding and tree replacement, estimated to cost \$2 million? (Percent "Strong support" or "Somewhat support")	34 or younger	35-54	55 or older	Detached	Attached
	(A)	(B)	(C)	(A)	(B)
Individual property owners pay all costs for damage in front of their property (including sidewalks and street trees). No cost to property owners that do not have damage.	29%	60% A	54% A	56% B	44%
All residents and businesses help pay the cost, either through a bond or on utility bills.	68% B C	44%	45%	47%	47%

TABLE 28: QUESTION #5 BY AGE AND UNIT TYPE

What are your thoughts on options for repairing and upgrading West Linn’s water system? (Percent "Strong agree" or "Somewhat agree")	34 or younger	35-54	55 or older	Detached	Attached
	(A)	(B)	(C)	(A)	(B)
I prefer incremental water rate increases (typically 5% per year), even if this could mean more frequent pipe breaks, service outages, and leaks.	23%	38% A	43% A	40% B	24%
I would prefer to pay more now (potentially \$60-\$120 per year) if it would address significant repairs and needed upgrades to the water system.	87% B C	75%	73%	73%	87% A

TABLE 29: QUESTION #6 BY AGE AND UNIT TYPE

Percent "Strong support" or "Somewhat support"	34 or younger	35-54	55 or older	Detached	Attached
	(A)	(B)	(C)	(A)	(B)
How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?	28%	34%	44% A B	37%	39%

TABLE 30: QUESTION #7 BY AGE AND UNIT TYPE

Percent "Strong support" or "Somewhat support"	34 or younger	35-54	55 or older	Detached	Attached
	(A)	(B)	(C)	(A)	(B)
How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center, possibly on Parker Road adjacent to Tanner Creek Park?	45%	50% C	33%	42%	44%

COMPARISONS BY HOUSING TENURE AND HOUSEHOLD INCOME

TABLE 31: QUESTION #1 BY HOUSING TENURE AND INCOME

Before receiving this survey, how much, if anything, had you heard about each of these possible projects? (Percent "Know a lot about it" or "Know some details")	Rent	Own	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B) A	(A)	(B)	(C)
Abernethy (I-205) Bridge water line replacement	4%	18% A	10%	15%	15%
Replacement of removed street trees from the 2021 ice storm	14%	26% A	16%	25%	24%
Citywide water system repairs and line replacement plans	2%	8% A	7%	7%	7%
Relocation of City Public Works & Parks Operations Facility (from Norfolk Street in the Sunset Neighborhood to near I-205)	0%	4% A	2%	3%	4%
New indoor recreation center on City-owned property, possibly on Parker Road adjacent to Tanner Creek Park	2%	7% A	6%	9%	5%

TABLE 32: QUESTION #2 BY HOUSING TENURE AND INCOME

How important, if at all, do you think it is for the City to find funding for the following projects in the next 5 years? (Percent "Essential" or "Very important")	Rent	Own	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(A)	(B)	(C)
Abernethy (I-205) Bridge water line replacement	70%	77%	69%	65%	80% B
Replacement of damaged street trees from the 2021 ice storm	25%	20%	14%	27% A	20%
Citywide Water System repairs and line replacement plans	75%	66%	60%	62%	71% B
Relocation of City Public Works & Parks Operations Facility	14% B	7%	12%	13% C	6%
New indoor community recreation center	23%	17%	16%	15%	22%

TABLE 33: QUESTION #3 BY HOUSING TENURE AND INCOME

Percent "Very likely to approve" or "Likely to approve"	Rent	Own	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(A)	(B)	(C)
If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?	89%	86%	82%	80%	90% B

TABLE 34: QUESTION #4 BY HOUSING TENURE AND INCOME

How strongly would you support or oppose each of the following funding options for ice storm stump grinding and tree replacement, estimated to cost \$2 million? (Percent "Strong support" or "Somewhat support")	Rent	Own	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(A)	(B)	(C)
Individual property owners pay all costs for damage in front of their property (including sidewalks and street trees). No cost to property owners that do not have damage.	38%	56% A	44%	45%	56% B
All residents and businesses help pay the cost, either through a bond or on utility bills.	44%	48%	31%	46%	52% A

TABLE 35: QUESTION #5 BY HOUSING TENURE AND INCOME

What are your thoughts on options for repairing and upgrading West Linn’s water system? (Percent "Strong agree" or "Somewhat agree")	Rent	Own	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(A)	(B)	(C)
I prefer incremental water rate increases (typically 5% per year), even if this could mean more frequent pipe breaks, service outages, and leaks.	28%	39%	47%	44% C	34%
I would prefer to pay more now (potentially \$60-\$120 per year) if it would address significant repairs and needed upgrades to the water system.	81%	74%	62%	75%	79% A

TABLE 36: QUESTION #6 BY HOUSING TENURE AND INCOME

Percent "Strong support" or "Somewhat support"	Rent	Own	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(A)	(B)	(C)
How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?	39%	37%	43%	39%	37%

TABLE 37: QUESTION #7 BY HOUSING TENURE AND INCOME

Percent "Strong support" or "Somewhat support"	Rent	Own	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(A)	(B)	(C)
How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center, possibly on Parker Road adjacent to Tanner Creek Park?	54% B	40%	31%	32%	51% A B

COMPARISONS BY ELECTORAL ENGAGEMENT

TABLE 38: QUESTION #1 BY ELECTORAL ENGAGEMENT

Before receiving this survey, how much, if anything, had you heard about each of these possible projects? (Percent "Know a lot about it" or "Know some details")	Not registered voter (A)	Registered voter (B)	Didn't vote in last election (A)	Voted in last election (B)
Abernethy (I-205) Bridge water line replacement	21%	16%	12%	17%
Replacement of removed street trees from the 2021 ice storm	32%	24%	16%	25%
Citywide water system repairs and line replacement plans	4%	7%	3%	7%
Relocation of City Public Works & Parks Operations Facility (from Norfolk Street in the Sunset Neighborhood to near I-205)	0%	4%	0%	4%
New indoor recreation center on City-owned property, possibly on Parker Road adjacent to Tanner Creek Park	0%	6%	0%	7% A

TABLE 39: QUESTION #2 BY ELECTORAL ENGAGEMENT

How important, if at all, do you think it is for the City to find funding for the following projects in the next 5 years? (Percent "Essential" or "Very important")	Not registered voter	Registered voter	Didn't vote in last election	Voted in last election
	(A)	(B)	(A)	(B)
Abernethy (I-205) Bridge water line replacement	64%	76%	60%	78% A
Replacement of damaged street trees from the 2021 ice storm	10%	21%	30% B	20%
Citywide Water System repairs and line replacement plans	62%	68%	61%	68%
Relocation of City Public Works & Parks Operations Facility	4%	8%	6%	8%
New indoor community recreation center	31%	18%	17%	19%

TABLE 40: QUESTION #3 BY ELECTORAL ENGAGEMENT

Percent "Very likely to approve" or "Likely to approve"	Not registered voter	Registered voter	Didn't vote in last election	Voted in last election
	(A)	(B)	(A)	(B)
If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?	83%	86%	90%	86%

TABLE 41: QUESTION #4 BY ELECTORAL ENGAGEMENT

How strongly would you support or oppose each of the following funding options for ice storm stump grinding and tree replacement, estimated to cost \$2 million? (Percent "Strong support" or "Somewhat support")	Not registered voter	Registered voter	Didn't vote in last election	Voted in last election
	(A)	(B)	(A)	(B)
Individual property owners pay all costs for damage in front of their property (including sidewalks and street trees). No cost to property owners that do not have damage.	83% B	53%	39%	55% A
All residents and businesses help pay the cost, either through a bond or on utility bills.	20%	48% A	55%	47%

TABLE 42: QUESTION #5 BY ELECTORAL ENGAGEMENT

What are your thoughts on options for repairing and upgrading West Linn's water system? (Percent "Strong agree" or "Somewhat agree")	Not registered voter	Registered voter	Didn't vote in last election	Voted in last election
	(A)	(B)	(A)	(B)
I prefer incremental water rate increases (typically 5% per year), even if this could mean more frequent pipe breaks, service outages, and leaks.	40%	37%	42%	37%
I would prefer to pay more now (potentially \$60-\$120 per year) if it would address significant repairs and needed upgrades to the water system.	57%	76%	77%	75%

TABLE 43: QUESTION #6 BY ELECTORAL ENGAGEMENT

Percent "Strong support" or "Somewhat support"	Not registered voter	Registered voter	Didn't vote in last election	Voted in last election
	(A)	(B)	(A)	(B)
How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?	15%	38%	23%	39% A

TABLE 44: QUESTION #7 BY ELECTORAL ENGAGEMENT

Percent "Strong support" or "Somewhat support"	Not registered voter	Registered voter	Didn't vote in last election	Voted in last election
	(A)	(B)	(A)	(B)
How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center, possibly on Parker Road adjacent to Tanner Creek Park?	75% B	41%	53%	41%

COMPARISONS BY AREA

TABLE 45: QUESTION #1 BY AREA

Before receiving this survey, how much, if anything, had you heard about each of these possible projects? (Percent "Know a lot about it" or "Know some details")	Willamette	Savanna Oaks+ BHT	Sunset+ Parker Crest+ Rosemont Summit	Bolton	Hidden Springs	Robinwood	Marylhurst+ Skyline Ridge
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Abernethy (I-205) Bridge water line replacement	16%	12%	18%	18%	19%	15%	14%
Replacement of removed street trees from the 2021 ice storm	15%	38% A D E F	27% A D	15%	25%	23%	28% A
Citywide water system repairs and line replacement plans	5%	4%	7%	6%	14% A B F	5%	6%
Relocation of City Public Works & Parks Operations Facility (from Norfolk Street in the Sunset Neighborhood to near I-205)	3%	6% D	7% D F	0%	3%	1%	3%
New indoor recreation center on City-owned property, possibly on Parker Road adjacent to Tanner Creek Park	6%	9%	5%	7%	7%	2%	5%

TABLE 46: QUESTION #2 BY AREA

How important, if at all, do you think it is for the City to find funding for the following projects in the next 5 years? (Percent "Essential" or "Very important")	Willamette	Savanna Oaks+ BHT	Sunset+ Parker Crest+ Rosemont Summit	Bolton	Hidden Springs	Robinwood	Marylhurst+ Skyline Ridge
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Abernethy (I-205) Bridge water line replacement	70%	77%	71%	73%	88% A C D	80%	81%
Replacement of damaged street trees from the 2021 ice storm	10%	27% A	27% A F	19%	23% A	14%	25% A
Citywide Water System repairs and line replacement plans	63%	69%	68%	67%	76% G	77% G	55%
Relocation of City Public Works & Parks Operations Facility	5%	7%	5%	10%	17% A B C G	10%	7%
New indoor community recreation center	15%	19%	13%	16%	27% A C	24%	30% A C D

TABLE 47: QUESTION #3 BY AREA

Percent "Very likely to approve" or "Likely to approve"	Willamette	Savanna Oaks+ BHT	Sunset+Parker Crest+ Rosemont Summit	Bolton	Hidden Springs	Robinwood	Marylhurst+ Skyline Ridge
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?	81%	88%	88%	87%	86%	91%	82%

TABLE 48: QUESTION #4 BY AREA

How strongly would you support or oppose each of the following funding options for ice storm stump grinding and tree replacement, estimated to cost \$2 million? (Percent "Strong support" or "Somewhat support")	Willamette	Savanna Oaks+ BHT	Sunset+ Parker Crest+ Rosemont Summit	Bolton	Hidden Springs	Robinwood	Marylhurst+ Skyline Ridge
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Individual property owners pay all costs for damage in front of their property (including sidewalks and street trees). No cost to property owners that do not have damage.	54%	54%	57%	54%	56%	56%	44%
All residents and businesses help pay the cost, either through a bond or on utility bills.	43%	57% C	43%	52%	52%	41%	45%

TABLE 49: QUESTION #5 BY AREA

What are your thoughts on options for repairing and upgrading West Linn’s water system? (Percent "Strong agree" or "Somewhat agree")	Willamette (A)	Savanna Oaks+ BHT (B)	Sunset+ Parker Crest+ Rosemont Summit (C)	Bolton (D)	Hidden Springs (E)	Robinwood (F)	Marylhurst+ Skyline Ridge (G)
I prefer incremental water rate increases (typically 5% per year), even if this could mean more frequent pipe breaks, service outages, and leaks.	35%	43% F	33%	41%	37%	26%	51% A C F
I would prefer to pay more now (potentially \$60-\$120 per year) if it would address significant repairs and needed upgrades to the water system.	77%	77%	74%	74%	74%	79%	74%

TABLE 50: QUESTION #6 BY AREA

Percent "Strong support" or "Somewhat support"	Willamette	Savanna Oaks+ BHT	Sunset+ Parker Crest+ Rosemont Summit	Bolton	Hidden Springs	Robinwood	Marylhurst+ Skyline Ridge
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?	39%	36%	38%	30%	44%	45%	31%

TABLE 51: QUESTION #7 BY AREA

	Willamette	Savanna Oaks+ BHT	Sunset+ Parker Crest+ Rosemont Summit	Bolton	Hidden Springs	Robinwood	Marylhurst+ Skyline Ridge
Percent "Strong support" or "Somewhat support"	(A)	(B)	(C)	(D)	(E)	(F)	(G)
How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center, possibly on Parker Road adjacent to Tanner Creek Park?	41%	33%	46%	34%	49% B	40%	54% B D

APPENDIX D: ADDRESS-BASED VS. OPEN PARTICIPATION OUTREACH

This section includes the full set of responses to the “open participation survey;” that is, from residents that heard about the survey and elected to participate in it. A total of 908 surveys were completed in the “open participation survey”. Results for the open-participation survey were weighted with the same process as the results of the scientific survey. Results from both surveys are included in this section for comparison purposes.

TABLE 52: QUESTION #1 BY SURVEY MODE

Before receiving this survey, how much, if anything, had you heard about each of these possible projects? (Percent "Know a lot about it" or "Know some details")	Scientific survey	Open Participation Survey
Abernethy (I-205) Bridge water line replacement	16%	32%
Replacement of removed street trees from the 2021 ice storm	24%	41%
Citywide water system repairs and line replacement plans	6%	16%
Relocation of City Public Works & Parks Operations Facility (from Norfolk Street in the Sunset Neighborhood to near I-205)	4%	11%
New indoor recreation center on City-owned property, possibly on Parker Road adjacent to Tanner Creek Park	6%	18%

TABLE 53: QUESTION #2 BY SURVEY MODE

How important, if at all, do you think it is for the City to find funding for the following projects in the next 5 years? (Percent "Essential" or "Very important")	Scientific survey	Open Participation Survey
Abernethy (I-205) Bridge water line replacement	76%	74%
Replacement of damaged street trees from the 2021 ice storm	20%	16%
Citywide Water System repairs and line replacement plans	67%	66%
Relocation of City Public Works & Parks Operations Facility	8%	6%
New indoor community recreation center	19%	21%

TABLE 54: QUESTION #3 BY SURVEY MODE

Percent "Very likely to approve" or "Likely to approve"	Scientific survey	Open Participation Survey
If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?	86%	85%

TABLE 55: QUESTION #4 BY SURVEY MODE

How strongly would you support or oppose each of the following funding options for ice storm stump grinding and tree replacement, estimated to cost \$2 million? Average rating on a 100 pts scale; 100=Strongly support, 0=Strongly oppose	Scientific survey	Open Participation Survey
Individual property owners pay all costs for damage in front of their property (including sidewalks and street trees). No cost to property owners that do not have damage.	54%	56%
All residents and businesses help pay the cost, either through a bond or on utility bills.	47%	46%

TABLE 56: QUESTION #5 BY SURVEY MODE

What are your thoughts on options for repairing and upgrading West Linn's water system? (Percent "Strong agree" or "Somewhat agree")	Scientific survey	Open Participation Survey
I prefer incremental water rate increases (typically 5% per year), even if this could mean more frequent pipe breaks, service outages, and leaks.	37%	45%
I would prefer to pay more now (potentially \$60-\$120 per year) if it would address significant repairs and needed upgrades to the water system.	75%	72%

TABLE 57: QUESTION #6 BY SURVEY MODE

Percent "Strong support" or "Somewhat support"	Scientific survey	Open Participation Survey
How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?	38%	37%

TABLE 58: QUESTION #7 BY SURVEY MODE

Percent "Strong support" or "Somewhat support"	Scientific survey	Open Participation Survey
How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center, possibly on Parker Road adjacent to Tanner Creek Park?	42%	43%

APPENDIX E: SURVEY METHODOLOGY

The City of West Linn contracted with Polco to conduct a community-wide survey of residents. The survey gave residents the opportunity to rate the importance of future infrastructure projects for the City of West Linn. The survey also permitted residents to provide feedback to government on potential sources of funding for infrastructure projects. The City of West Linn funded this research.

DEVELOPING THE QUESTIONNAIRE

The 2022 West Linn Capital Infrastructure Funding Survey instrument was developed through an iterative process between City and Polco staff, resulting in fourteen-item questionnaire that was programmed on Polco. With the City guiding content needs and Polco leading on survey design and question structure to ensure results would be robust and actionable.

SELECTING SURVEY INVITATION RECIPIENTS

The target population for the survey was adults who live in the limits of West Linn. The list from which survey recipients are selected is referred to as a “sampling frame.” A sampling frame was chosen which will provide high “coverage,” meaning that almost every member of the target population has a chance of being selected.

Because local governments generally do not have inclusive lists of all the residences in the jurisdiction (tax assessor and utility billing databases often omit rental units), lists from the United States Postal Service (USPS), based on the Delivery Sequence File (DSF) used by the postal carriers to deliver the mail and updated every three months, usually provide the best representation of all households in a specific geographic location. A list of households within the ZIP codes serving West Linn was purchased from Go-Dog Direct. They provided a list of addresses that were selected using a systematic selection, a procedure where every Nth item is chosen, a process which closely approximates a random selection. A larger list than needed was sampled, as ZIP codes generally do not follow municipal boundaries and addresses that were not within city limits would be eliminated. Each of the addresses purchased was geocoded, and identified as being inside or outside city boundaries, and if inside the city, assigned to one of the 12 city areas (Willamette, Savanna Oaks, General West Linn, BHT, Sunset, Parker Crest, Rosemont Summit, Bolton, Hidden Springs, Robinwood, Marylhurst and Skyline Ridge).

In addition, multi-family addresses (identified as those including a unit number) were oversampled at a rate of 5:3 compared to single family addresses. This oversampling is done as those who live in multi-family housing tend to respond to surveys at a lower rate than those in single family housing. In total, 4,000 households in West Linn were selected to receive survey invitations. An individual within each household was randomly selected to complete the survey using the birthday method. (The birthday method selects a person within the household by asking the “person whose birthday has most recently passed” to complete the survey. The underlying assumption in this method is that day of birth has no relationship to the way people respond to surveys.)

SURVEY ADMINISTRATION AND RESPONSE RATE

Each selected household was contacted twice via postcard (initial invitation and reminder). The half-page-sized postcard invitations informed the household members that they had been selected to participate in the West Linn Capital Infrastructure Funding Survey and included a web link and instructions to go online to complete the survey.

The mailings were sent in May 2022, one week apart. Completed surveys were collected over the following six weeks. About 4% of the 4,000 postcards were returned because the housing unit was vacant or the postal service was unable to deliver the survey as addressed.

Of the 3,860 households presumed to have received an invitation postcard, 676 completed the survey, providing a response rate of 18%.

FIGURE 8: RESPONSE RATE BY AREA

Area	Number mailed	Undeliverable	Eligible	Returned	Response rate
Willamette	1,008	27	981	154	16%
Savanna Oaks	396	10	386	70	18%
General West Linn	12	0	12	0	0%
BHT	122	0	122	21	17%
Sunset	439	35	404	53	13%
Parker Crest	238	8	230	32	14%
Rosemont Summit	206	4	202	47	23%
Bolton	507	20	487	84	17%
Hidden Springs	443	6	437	88	20%
Robinwood	479	27	452	72	16%
Marylhurst	98	2	96	46	48%
Skyline Ridge	52	1	51	9	18%
Overall	4,000	140	3,860	676	18%

The 95% confidence interval (or “margin of error”) quantifies the “sampling error” or precision of the estimates made from the survey results. A 95% confidence interval can be calculated for any sample size and indicates that in 95 of 100 surveys conducted like this one, for a particular item, a result would be found that is within a certain number of percentage points of the result that would be found if everyone in the population of interest was surveyed. The practical difficulties of conducting any resident survey may introduce other sources of error in addition to sampling error. Despite the best efforts to boost participation and ensure potential inclusion of all households, some selected households will decline participation in the survey (referred to as non-response error) and some eligible households may be unintentionally excluded from the listed sources for the sample (referred to as coverage error). The margin of error for this survey, with 676 respondents, is $\pm 3.8\%$.

SURVEY PROCESSING (DATA ENTRY)

Polco’s web-based survey and analytics platform was used to collect the online survey data. Use of an online system means all collected data are entered into the dataset when the respondents submit the surveys. Skip patterns are programmed into the system, so respondents are automatically “skipped” to the appropriate question based on the individual responses being given. Online programming also allows for more rigid control of the data format, making extensive data cleaning unnecessary.

A series of quality control checks were also performed in order to ensure the integrity of the web data. Steps may include and not be limited to reviewing the data for clusters of repeat IP addresses and time stamps (indicating duplicate responses) and removing empty submissions (questionnaires submitted with no questions answered).

WEIGHTING THE DATA

The primary objective of weighting survey data is to make the survey sample reflective of the larger population of the community. This is done by comparing the demographic profile of survey respondents to that of the target population, adults living in West Linn. Weighting is a statistical adjustment where more weight is given to groups who responded at a lower rate than other groups, and less weight is given to those who responded at a higher rate. For example, in nearly all surveys, younger people respond at a lower rate than older people. Weighting rebalances the profile. The theory behind this weighting is that younger people (or other groups who tend to under respond) who did participate in the survey are more like the younger people who did NOT participate than they are like the older people who did respond to the survey¹.

Initial weights were calculated using an Iterative Proportional Fitting model via a python raking algorithm plug-in to SPSS. These initial weights were trimmed so that no case was given a weight greater than 5.5. No adjustments were made for design effects. The results of the weighting scheme are presented in the table on the next page.

¹ An example of how weighting works may be helpful. Hypothetically, suppose the population norm for gender was 50%/50%, but 70% of the surveys we received were from females, and 30% were from males. The weights we would need to apply to make our sample representative of the population would be 0.7143 for females (thereby giving each response **less** weight in the overall ratings) and 1.6667 for males (giving each response **more** weight overall). Let's further suppose that these two groups had very different ratings of parks; females felt very favorably, with 80% of females giving a positive rating, and males felt much less favorably, with only 40% giving a positive rating. Given that we had more responses from women, if we did NOT weight the results, we would be left with a rosier picture of the perception of parks by residents than if we did weight the data. The unweighted average rating is 68% ($80\% \times 70\% + 40\% \times 30\%$), while the weighted average is 60% ($80\% \times 50\% + 40\% \times 50\%$).

Characteristic	Percent in Population	Percent in Sample	Weight to bring to 50%	Unwt'd Rating of Parks	Parks rating with proper weights
Female	50%	70%	0.714	80	(80 * .50)
Male	50%	30%	1.666	40	(40 * .50)
TOTAL	100%	100%	----	68	60

FIGURE 9: WEST LINN CAPITAL INFRASTRUCTURE FUNDING SURVEY WEIGHTING TABLE

Characteristic	Population Norm ²	Unweighted Data	Weighted Data
Housing			
Rent home	22%	6%	16%
Own home	78%	94%	84%
Detached unit	79%	88%	83%
Attached unit	21%	12%	17%
Race and Ethnicity			
White	92%	89%	90%
Not white	8%	11%	10%
Not Hispanic	97%	96%	96%
Hispanic	3%	4%	4%
Sex and Age			
Female	52%	52%	51%
Male	48%	47%	47%
18-34 years of age	20%	4%	15%
35-54 years of age	44%	39%	46%
55+ years of age	36%	57%	39%
Females 18-34	10%	3%	8%
Females 35-54	23%	20%	24%
Females 55+	19%	29%	20%
Males 18-34	10%	2%	8%
Males 35-54	21%	18%	22%
Males 55+	17%	28%	19%

² Source: 2010 Census

STATISTICAL ANALYSIS

The electronic dataset was analyzed by Polco/NRC staff using the Statistical Package for the Social Sciences (SPSS). For the most part, frequency distributions and mean ratings are presented in the body of the report. A complete set of frequencies for each survey question is presented in *Appendix B: Complete Survey Frequencies*.

Also included are results by respondent characteristics (*Appendix C: Responses to Survey Questions by Respondent Characteristics*). Chi-square or ANOVA tests of significance were applied to these breakdowns of selected survey questions. A “p-value” of 0.05 or less indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of the sample represent “real” differences among those populations. Where differences between subgroups are statistically significant, they have been noted in the tables.

APPENDIX F: SURVEY MATERIALS

The following pages contain copies of the survey materials sent to randomly selected households within the City of West Linn.



Presorted
First Class Mail
US Postage
PAID
Boulder, CO

Dear West Linn Resident,

The City of West Linn needs your input as we make important plans for our community. Your guidance will help us ensure we are meeting our community's needs.

Please take a few minutes to answer this short survey at:

www.polco.us/XXXX

It won't take much of your time to make a big difference!

If you have any questions about the survey, please call (503) 657-0331 or email (webmaster@westlinnoregon.gov) the City.

Thank you for your time and participation!

Sincerely,



Jules Walters, Mayor

Dear West Linn Resident,

Just a reminder—if you have not yet taken our community survey, please do so now!

If you have completed it, thank you. Please do not respond twice.

The City of West Linn needs your input as we make important plans for our community. Your guidance will help us ensure we are meeting our community's needs.

Please take a few minutes to answer this short survey at:

www.polco.us/XXXX

It won't take much of your time to make a big difference!

If you have any questions about the survey, please call (503) 657-0331 or email (webmaster@westlinnoregon.gov) the City.

Thank you for your time and participation!

Sincerely,



Jules Walters, Mayor

West Linn Capital Infrastructure Funding Survey 2022

Thank you for participating in this survey! Your answers will help guide our plans for the future infrastructure projects. Your responses are confidential and no identifying information will be shared. Please note that after you complete the survey you will be asked to subscribe to the City profile on Polco by providing an email and zip code - **this is optional** but we hope you will subscribe as we will have more input opportunities coming up soon. Be assured that your email address will never be shared and will only be used to connect with you for further input on public issues or to share the results.

1. Before receiving this survey, how much, if anything, had you heard about each of these possible projects?

	<i>Have not heard anything</i>	<i>Have heard of it, but don't know any details</i>	<i>Know some details</i>	<i>Know a lot about it</i>
Abernethy (I-205) Bridge water line replacement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Replacement of removed street trees from the 2021 ice storm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Citywide water system repairs and line replacement plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relocation of City Public Works & Parks Operations Facility (from Norfolk Street in the Sunset Neighborhood to near I-205)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New indoor recreation center on City-owned property, possibly on Parker Road adjacent to Tanner Creek Park	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Here are a few details about the projects

For most of these projects, the exact funding source and budgets have not yet been finalized, but we can provide ballpark costs. We are interested in your initial thoughts for each of these projects to help us prioritize and plan. More details will be shared and more input will be sought as they are further framed out.

Abernethy (I-205) Bridge Water Line Replacement. West Linn receives its entire water supply via a pipe under the I-205 Bridge. This pipe must be replaced at West Linn's expense when the State replaces the bridge (expected to begin in 2022). The City will seek funding assistance from the State and Federal Government for this project, however West Linn's share could be as much as \$14 million. West Linn voters will likely see a bond measure in November 2022 for this expense. If the measure does not pass, the money will come from deferring water maintenance

activities on West Linn’s water system. This could lead to increased problems with breaks and leaks as our system ages. The cost of a \$14 million bond would be approximately \$84/year for the owner of a home of average assessed value.

Ice Storm Damaged-Tree Replacement. Over 1,600 street trees were lost in the February 2021 ice storm and the cost to grind out stumps and plant new trees is estimated to total approximately \$2 million. Property owners are financially responsible for these costs, but the City Council is considering a city-wide funding measure to assist these owners in recognition of the scope of the damage and to ensure a coordinated, cost-effective approach. The cost of a \$2 million bond would be approximately \$12/year for the owner of a home of average assessed value.

Citywide Water System Repairs/Line Replacements. A new water system master plan is being completed, including an assessment of the aging infrastructure. It is expected that significant repairs and replacements will be needed to ensure a safe, reliable drinking water network across the City. The master plan will be completed in 2023, but initial estimates are that \$10-\$20 million will be needed to address the highest priority drinking water system repairs and upgrades (about \$60-\$120/year for the owner of a home of average assessed value).

City Public Works & Parks Operations Facility. West Linn’s Operations facility is currently located in a residential area on Norfolk Street in the Sunset Neighborhood. The facility could be relocated to a site along Highway 205 on land acquired from the Oregon Department of Transportation. A new facility would be better placed, adequately sized, seismically resilient, and allow for updated amenities to help staff better serve the community. It would also remove the conflicts with surrounding neighborhood residents. The initial estimate for a project several years in the future is \$15 Million and about half of the funding has been identified. A \$7.5 Million bond for the remainder would cost approximately \$45/year for the owner of a home of average assessed value.

Indoor Community Recreation Center. The City currently has a mix of buildings for indoor recreational activities. Two are managed by the City (Adult Community Center and Sunset Fire Hall) while two are operated by local non-profits (McLean House and Robinwood Station). None of these facilities provide large flexible spaces, as are available in some traditional recreation centers. An indoor recreation center could be built on City-owned property, potentially on Parker Road adjacent to Tanner Creek Park. Similar projects in other cities have ranged from \$20 to \$40 million or more. The current estimate for a West Linn Indoor Community Recreation Center is \$25 Million or approximately \$150/year for the owner of a home of average assessed value.

2. How important, if at all, do you think it is for the City to find funding for the following projects in the next 5 years?

	Essential	Very important	Important	Somewhat important	Not at all important
Abernethy (I-205) Bridge water line replacement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Replacement of damaged street trees from the 2021 ice storm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Essential	Very important	Important	Somewhat important	Not at all important
Citywide Water System repairs and line replacement plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relocation of City Public Works & Parks Operations Facility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New indoor community recreation center	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please let us know what you think about these funding options, given the details you know so far.

3. If it was put on the November 2022 ballot, how likely would you be to approve or oppose the bond measure to cover the estimated \$14 million cost to the City for the Abernethy (I-205) Bridge Water Line Replacement?

- Very likely to approve

- Likely to approve

- Likely to oppose

- Very likely to oppose

- I would not vote/usually don't vote

- Don't know/no opinion

4. How strongly would you support or oppose each of the following funding options for ice storm stump grinding and tree replacement, estimated to cost \$2 million?

	Strongly support	Somewhat support	Somewhat oppose	Strongly oppose	Don't know/no opinion
Individual property owners pay all costs for damage in front of their property (including sidewalks and street trees). No cost to property owners that do not have damage.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All residents and businesses help pay the cost, either through a bond or on utility bills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. What are your thoughts on options for repairing and upgrading West Linn's water system?

	<i>Strongly agree</i>	<i>Somewhat agree</i>	<i>Somewhat disagree</i>	<i>Strongly disagree</i>	<i>Don't know/no opinion</i>
I prefer incremental water rate increases (typically 5% per year), even if this could mean more frequent pipe breaks, service outages, and leaks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would prefer to pay more now (potentially \$60-\$120 per year) if it would address significant repairs and needed upgrades to the water system.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. How strongly do you support or oppose the City building a new Public Works/Parks Operations facility adjacent to I-205 and moving out of the current facility on Norfolk Street in the Sunset Neighborhood?

Strongly support

Somewhat support

Somewhat oppose

Strongly oppose

Don't know/no opinion

7. How strongly would you support or oppose the City creating a general obligation bond measure for \$25 Million (approximately \$150/year for an owner of an average home), to fund the construction of a new indoor recreation center, possibly on Parker Road adjacent to Tanner Creek Park?

Strongly support

Somewhat support

Somewhat oppose

Strongly oppose

Don't know

Our last questions are about you and your household. Again, all of your responses to this survey are completely confidential and will be reported in group form only.

8. What is your gender?

Female

Male

Identify in another way

9. How much do you anticipate your household's total income before taxes will be for the current year? (Please include in your total income money from all sources for all persons living in your household.)

Less than \$25,000

\$25,000 to \$49,999

\$50,000 to \$74,999

\$75,000 to \$99,999

\$100,000 to \$149,999

\$150,000 to \$199,999

\$200,000 or more.

10. Are you or any other members of your household aged 17 or younger?

No

Yes

11. Are you or any other members of your household aged 65 or older?

No

Yes

12. Do you rent or own your home?

Rent

Own

13. Which best describes the building you live in?

One family house detached from any other houses

Building with two or more homes (duplex, townhome, apartment or condominium)

Other

14. In which category is your age?

17 years or younger

18-24 years

25-34 years

35-44 years

45-54 years

55-64 years

65-74 years

75 years or older

15. What is your race? (Mark one or more races to indicate what race you consider yourself to be.)

Choose all that apply

American Indian or Alaska Native

Asian

Black or African American

Native Hawaiian or Other Pacific Islander

White

A race not listed

16. Are you of Hispanic, Latino/a/x, or Spanish origin?

No, not of Hispanic, Latino/a/x, or Spanish origin

Yes, I consider myself to be of Hispanic, Latino/a/x, or Spanish origin

17. Not everyone manages to make time for voting, please let us know whether or not you:

	No	Yes
Are currently registered to vote in Clackamas County	<input type="radio"/>	<input type="radio"/>
Voted in your most recent local election	<input type="radio"/>	<input type="radio"/>