



ATTACHMENT 4

THE UPLANDS COMBINED SEWER SEPARATION PROJECT – REPORT ON SURVEY RESEARCH



Uplands Combined Sewer Separation Project

Report on Survey Research



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Executive Summary

- This document reports on the findings from a survey conducted by Strategic Initiatives (SII) on behalf of the District of Oak Bay among Oak Bay residents and/or property owners. The purpose of the survey was to help the District gather feedback and understand opinions from residents of Oak Bay about the six options under consideration to separate the combined sewer system in the Uplands neighbourhood. A total of 117 completed responses were received. Of the 117 respondents, 70% owned property in the Uplands; 95% of these in the Humber/Rutland area.
- Respondents indicated that of the various considerations about which they were asked, the most important were: minimizing operations/maintenance costs to Uplands property owners (78% rated either very important or somewhat important); most environmentally appropriate use of existing pipe (67%); and minimizing capital costs to Uplands property owners (64%). The least important considerations (based on “bottom 2 box” scores, or the percentage of respondents rating the consideration either very unimportant or somewhat unimportant) were: project is completed in a timely fashion (34%); minimize capital costs to the District (32%); and minimize length of neighbourhood disruption (25%).
- Based on respondents’ average ratings on a scale from 1 to 5, the most important considerations were: minimize operations/maintenance costs to Uplands property owners (4.2); most environmentally appropriate use of existing pipe (4.0); and minimize capital costs to Uplands property owners (3.9).
- Oak Bay homeowners whose property was not located in the Uplands (“Other OB Homeowners”) were significantly more likely than owners of property in the Uplands (“Uplands Homeowners”) to rate as important: most environmentally appropriate use of pipe (4.5 vs. 3.8); project is completed in a timely fashion (3.7 vs. 3.0); minimize capital costs to the District (4.6 vs. 2.8); and minimize operations/maintenance costs to the District (4.6 vs. 3.4). Uplands homeowners were significantly more likely than other OB homeowners to rate as important: minimize capital costs to Uplands property owners (4.4 vs. 2.6); and minimize operations/maintenance costs to Uplands property owners (4.6 vs. 2.9).
- Minimizing capital costs to Uplands property owners was rated most important by the largest percentage of all respondents to the survey (26%), followed by minimizing operations/maintenance costs to Uplands property owners (19%); and minimizing capital costs to the District (13%).
- Uplands homeowners were significantly more likely than other OB homeowners to rank as most important: minimize capital costs to Uplands property owners (37% vs. 0%); and minimize operations/maintenance costs to Uplands property owners (26% vs. 3%). Other OB homeowners were significantly more likely than Uplands homeowners to rank as most important: minimize capital costs to the District (45% vs. 2%); and minimize operations/maintenance costs to the District (28% vs. 2%).
- Almost half (44.4%) of those completing the survey took advantage of the opportunity of responding to an open-ended question asking them what other considerations they would like to make Council aware of to comment regarding cost issues – either capital or operating/maintenance. One third (32.5%) of respondents either expressed their strong preference for a gravity-based system, or indicated negative feelings about pumps and generators.
- Option 1 was the technical option preferred by the highest percentage of respondents, with 46% of all those responding to the survey ranking Option 1 first in order of preference, followed by Option 3 (10%) and Option 6 (9%).
- Based on mean ranking scores, Uplands homeowners were significantly more likely than other OB homeowners to rank Option 1 and Option 2 as their most preferred of the six technical options. Other OB homeowners were significantly more likely than Uplands homeowners to rank Option 3 as their most preferred option. The differences between Uplands homeowners and other OB homeowners in their average rankings of the remaining technical options were not significant.
- When asked for the one or two reasons why they preferred the technical option they had ranked “1”, almost half of those responding to the survey (47.9%) said their preference was related to gravity systems being “better”, or to negative feelings about pumps. More than one third of the responses (35.0%) indicated that the preference for a specific option was related to cost issues. One quarter of respondents (24.8%) related their preference for their first choice option to their concern that the current pipe be used for storm water and the new pipe be used for the sanitary system. Less than one quarter of people (17.1%) preferred their first choice option because they perceived it as less disruptive.





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Introduction and Background

This document reports on the findings, conclusions and indicated actions from a survey conducted by Strategic Initiatives (SII) on behalf of the District of Oak Bay. The survey was conducted among Oak Bay residents and/or property owners between November 9 and December 11, 2015 in order to help the District gather feedback and understand opinions from residents of Oak Bay about the six options under consideration to separate the combined sewer system in the Uplands neighbourhood, as mandated by the provincial government under the Municipal Wastewater Regulation. Responses to the survey will help inform Council's decision-making moving forward.

The survey instrument (questionnaire) was developed by Strategic Initiatives in close collaboration with the District of Oak Bay. In addition to seven closed-ended questions, the survey included two open-ended questions. Responses to the survey questions are summarized within this report. A spreadsheet including all the responses received to the open-ended questions, verbatim, is attached as appendix 1.

The online survey was hosted by Strategic Initiatives. Respondents were directed to the online survey via a clickable link on the Oak Bay website, by mentions at open houses and via social media. Paper copies of the survey were distributed at open houses and at the Oak Bay municipal offices, for those preferring to complete the survey in hard copy. A link to a downloadable hard copy version of the survey was also included on the Oak Bay website.

Of the total of 117 completed surveys, 60 were submitted in hard copy. Hard copy responses were entered into the survey software by Strategic Initiatives. Responses to open-ended questions submitted in hard copy were transcribed, verbatim, into the survey software.

Once data collection and data entry of the hard copy surveys was complete, the raw data were cleaned and tabulated. Responses to open-ended questions were coded and tabulated. Cross-tabulations were run to calculate responses to each question in the online survey according to whether respondents owned property in the Uplands. (Unfortunately, due to the small sample size, it was inappropriate to cross-tabulate responses by other variables.) Significance tests were performed at the 95% confidence level (described in the report as “significantly more likely”). Statistically significant differences between Uplands property owners and non-owners have been called out in the report. Otherwise, the reader may assume that no statistically significant differences were observed.

With a sample size of 117, survey results are accurate to within an estimated margin of error of $\pm 9.06\%$ at a 95% level of confidence (i.e. 19 times out of 20).





Respondent Demographics

The first four questions of the survey (Q1 through Q4) were used to screen and classify respondents. Individuals who were not either residents of Oak Bay or Oak Bay property owners were disqualified from completing the survey.

The base of 117 survey respondents broke down as follows:

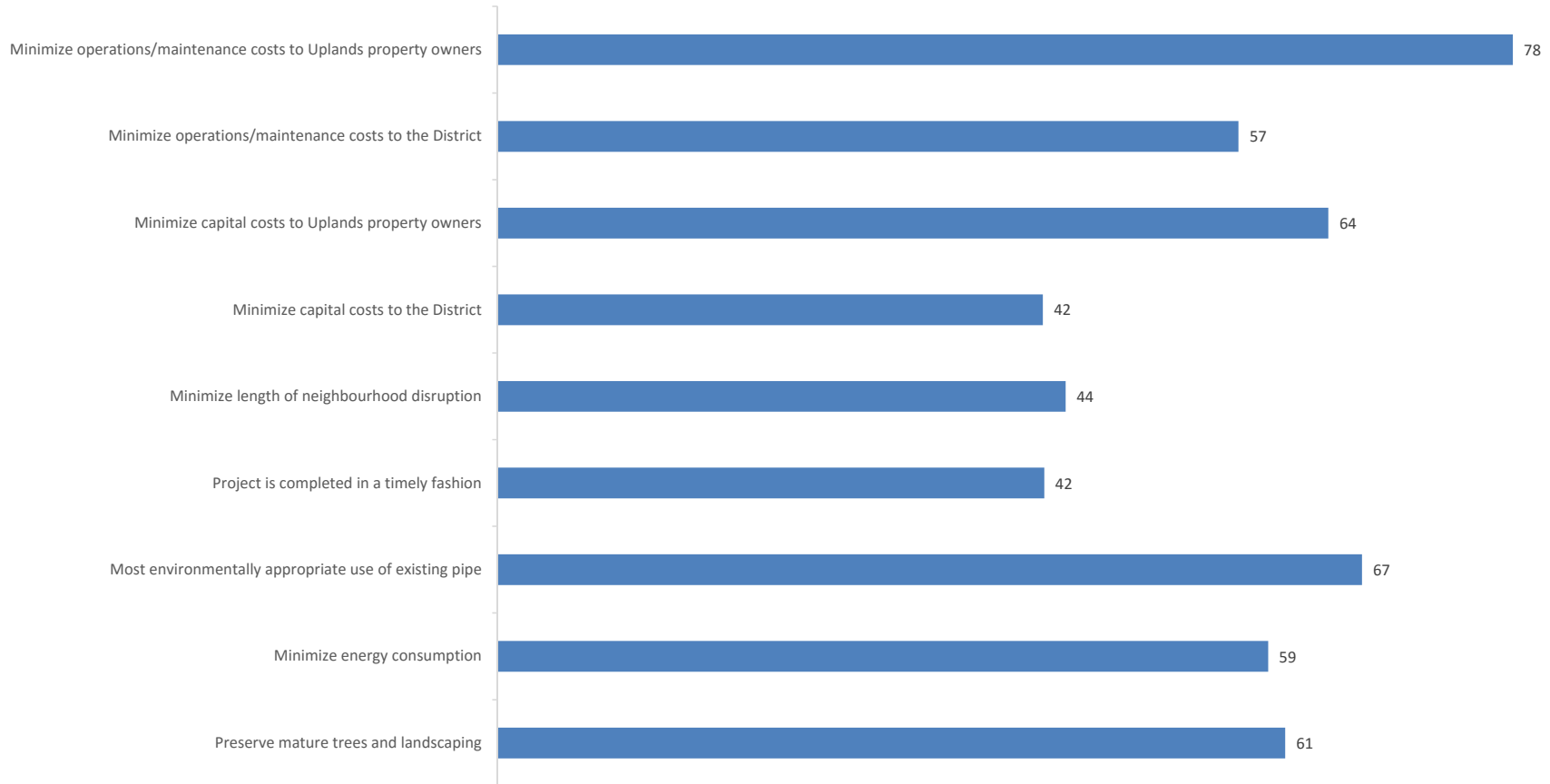
- 93% of those beginning the survey identified themselves as residents of Oak Bay;
- 93% of all respondents said they owned property in Oak Bay;
- 70% of Oak Bay property owners indicated their property was in the Uplands (82 respondents); and
- 95% of Uplands property owners said their property was located in the Humber/Rutland catchment area (78 respondents).





Overall Importance of Various Considerations

Importance of Various Considerations – Most Important
(Top 2 Box Summary – % Important)



Q5 Council will be weighing a number of considerations as it determines how best to comply with the provincial government’s mandatory Municipal Wastewater Regulation. Please rate the importance of each of the following considerations.

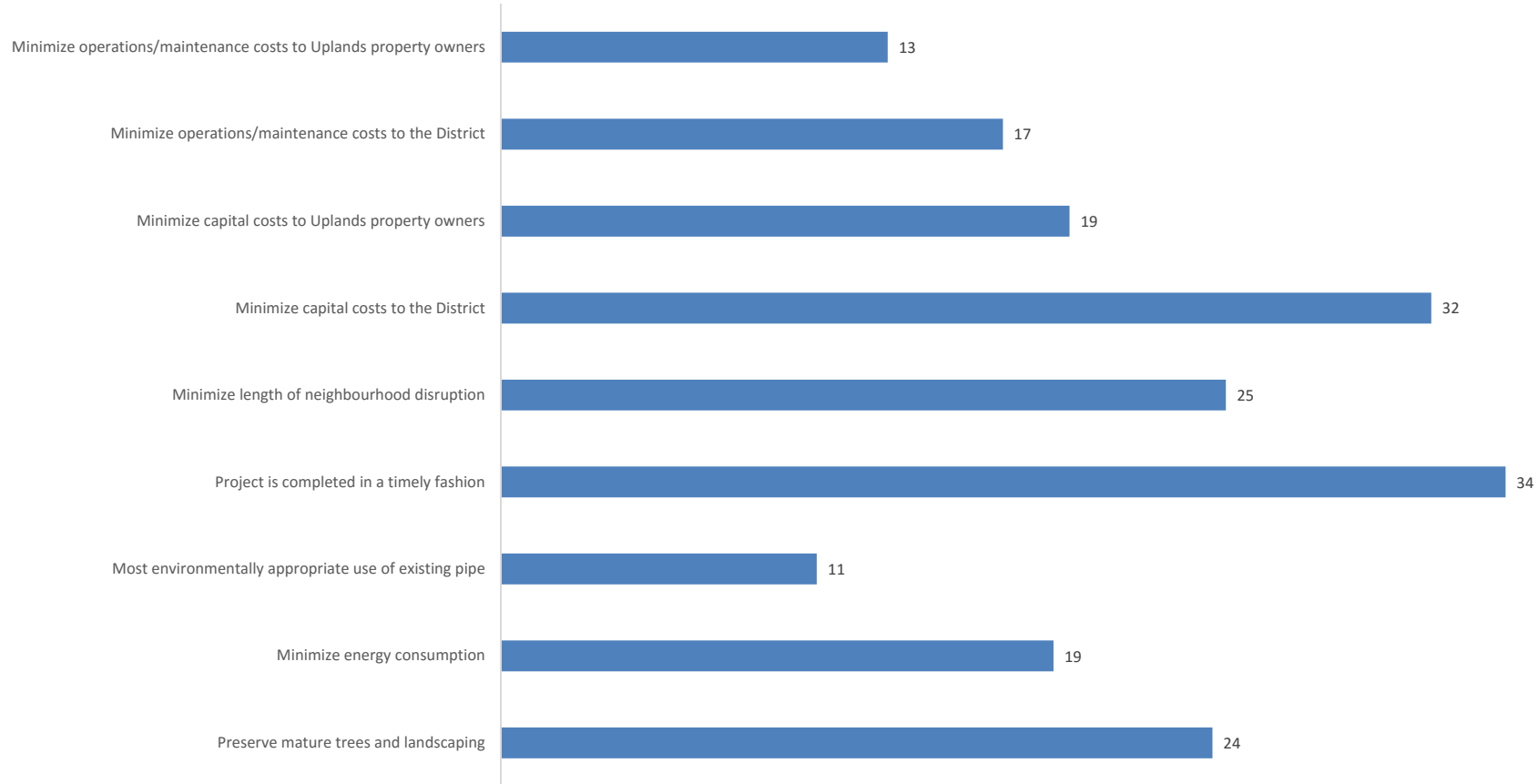
Respondents indicated that of the various considerations about which they were asked, the most important were: minimize operations/maintenance costs to Uplands property owners (78% rated either very important or somewhat important); most environmentally appropriate use of existing pipe (67%); and minimize capital costs to Uplands property owners (64%).





Overall Importance of Various Considerations

Importance of Various Considerations – Least Important
(Bottom 2 Box Summary – % Not Important)



Q5 Council will be weighing a number of considerations as it determines how best to comply with the provincial government’s mandatory Municipal Wastewater Regulation. Please rate the importance of each of the following considerations.

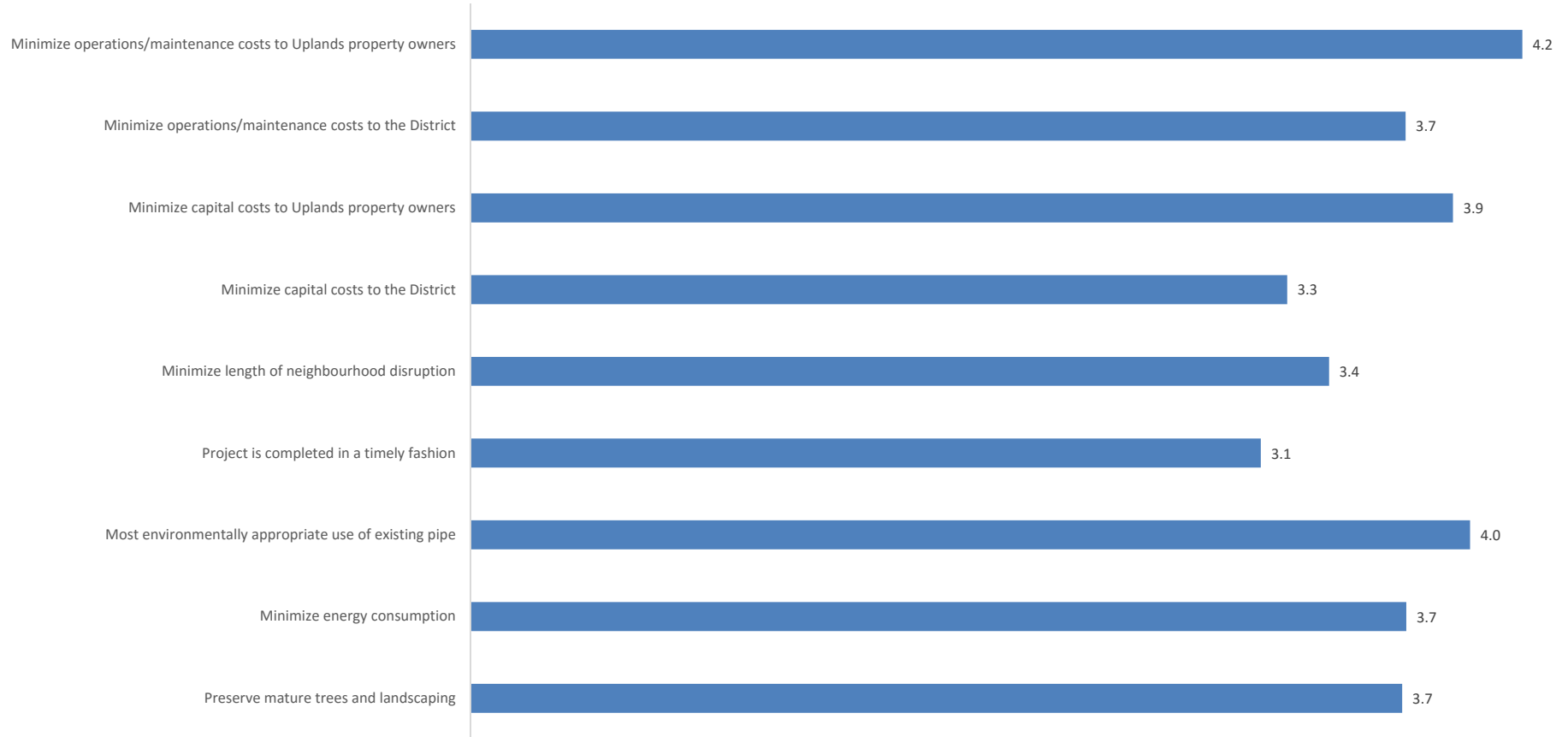
The least important considerations (based on “bottom 2 box” scores, or the percentage of respondents rating the consideration either very unimportant or somewhat unimportant) were: project is completed in a timely fashion (34%); minimize capital costs to the District (32%); and minimize length of neighbourhood disruption (25%).





Overall Importance of Various Considerations

Importance of Various Considerations
(Mean Importance)



Q5 Council will be weighing a number of considerations as it determines how best to comply with the provincial government’s mandatory Municipal Wastewater Regulation. Please rate the importance of each of the following considerations.

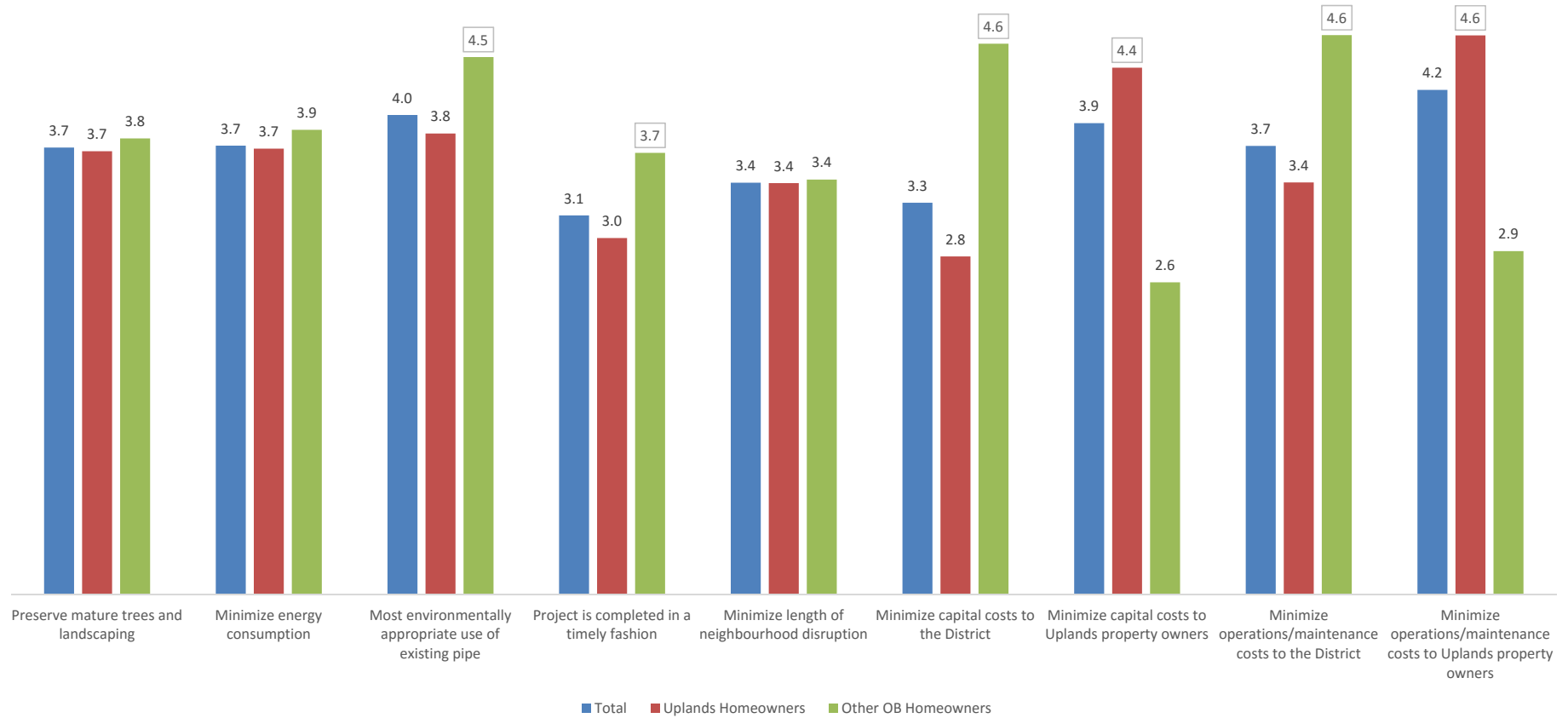
Based on respondents’ average ratings on a scale from 1 to 5, the most important considerations were: minimize operations/maintenance costs to Uplands property owners (4.2); most environmentally appropriate use of existing pipe (4.0); and minimize capital costs to Uplands property owners (3.9). Considerations with the lowest average importance scores were: project is completed in a timely fashion (3.1); minimize capital costs to the District (3.3); and minimize length of neighbourhood disruption (3.4).





Overall Importance of Various Considerations

Importance of Various Considerations
(Mean Importance)



Q5 Council will be weighing a number of considerations as it determines how best to comply with the provincial government’s mandatory Municipal Wastewater Regulation. Please rate the importance of each of the following considerations.

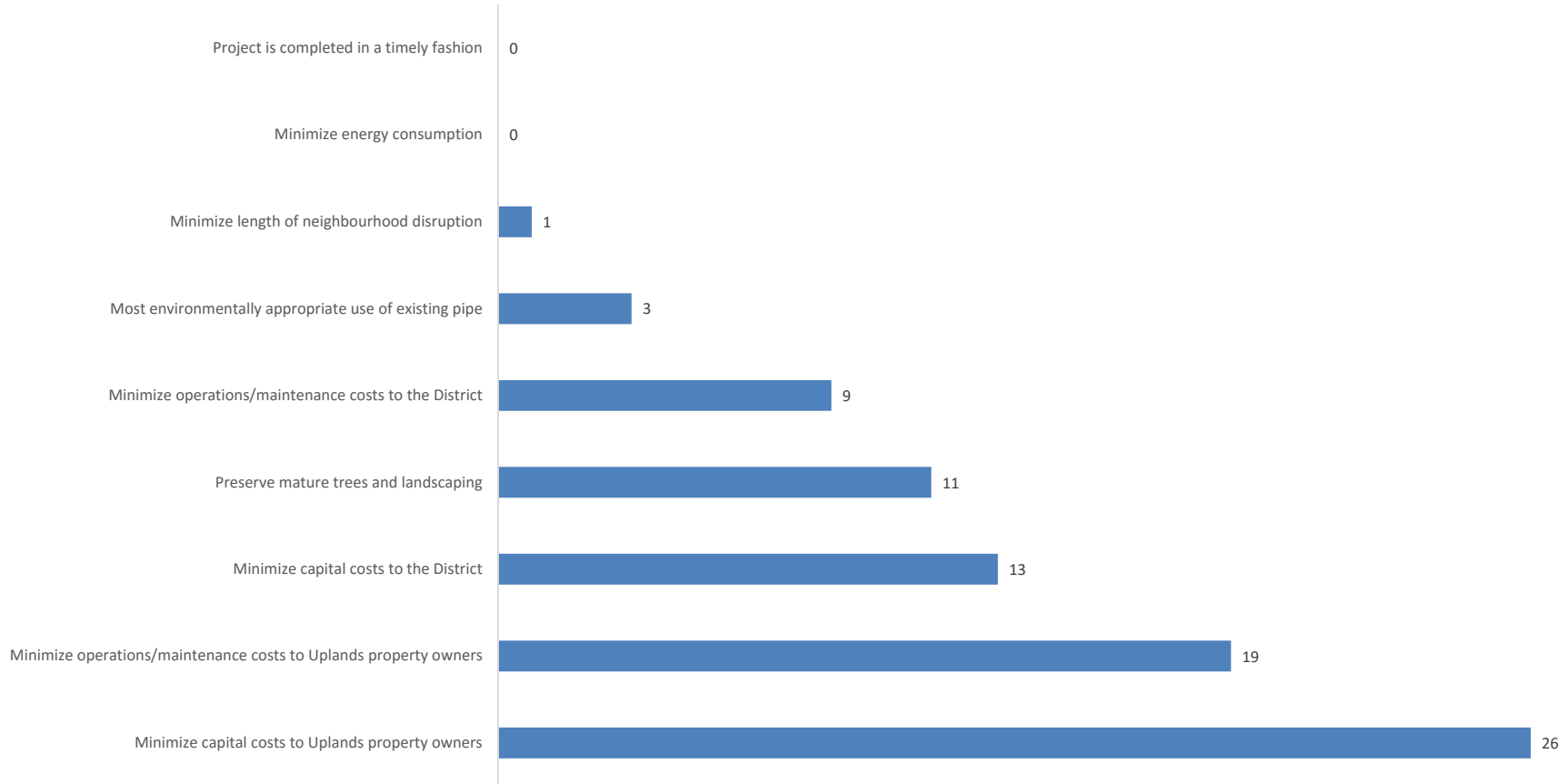
Oak Bay property owners whose property was not located in the Uplands (“Other OB Homeowners”) were significantly more likely than owners of property in the Uplands (“Uplands Homeowners”) to rate as important: most environmentally appropriate use of pipe (4.5 vs. 3.8); project is completed in a timely fashion (3.7 vs. 3.0); minimize capital costs to the District (4.6 vs. 2.8); and minimize operations/maintenance costs to the District (4.6 vs. 3.4). Uplands homeowners were significantly more likely to rate as important: minimize capital costs to Uplands property owners (4.4 vs. 2.6); and minimize operations/maintenance costs to Uplands property owners (4.6 vs. 2.9).





Ranked Importance of Various Considerations

Importance of Various Considerations
(% Ranked First)



Q6 Please indicate which 3 of the following considerations are the most important to you.

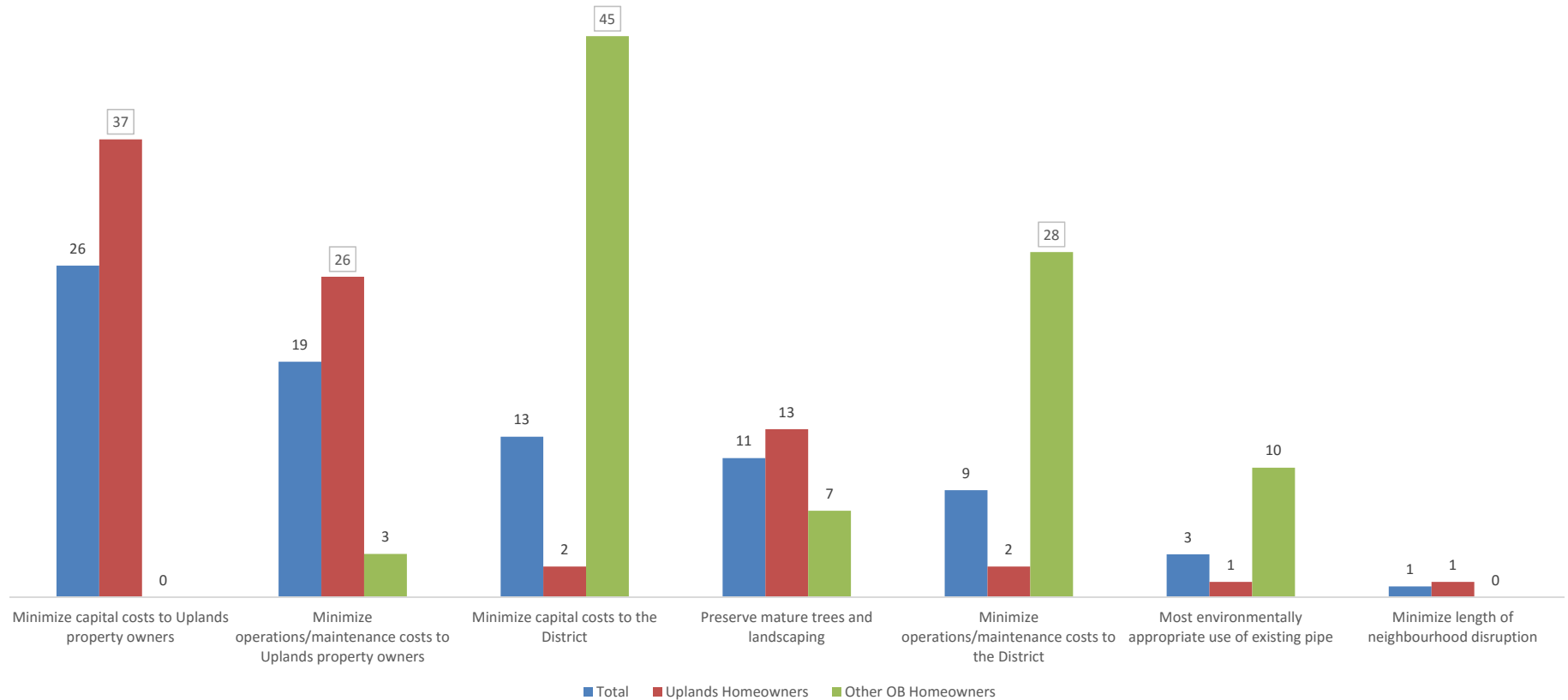
Minimize capital costs to Uplands property owners was rated the most important consideration by the largest percentage of all respondents to the survey (26%), followed by minimize operations/maintenance costs to Uplands property owners (19%); and minimize capital costs to the District (13%).





Ranked Importance of Various Considerations

Importance of Various Considerations
(% Ranked First)



Q6 Please indicate which 3 of the following considerations are the most important to you.

Respondents owning property in the Uplands were significantly more likely than those whose Oak Bay property was located outside the Uplands (“Other OB Homeowners”) to rank as the most important consideration: minimize capital costs to Uplands property owners (37% vs. 0%); and minimize operations/maintenance costs to Uplands property owners (26% vs. 3%). Other OB homeowners were significantly more likely than Uplands homeowners to rank as the most important criteria: minimize capital costs to the District (45% vs. 2%); and minimize operations/maintenance costs to the District (28% vs. 2%).





Other Considerations

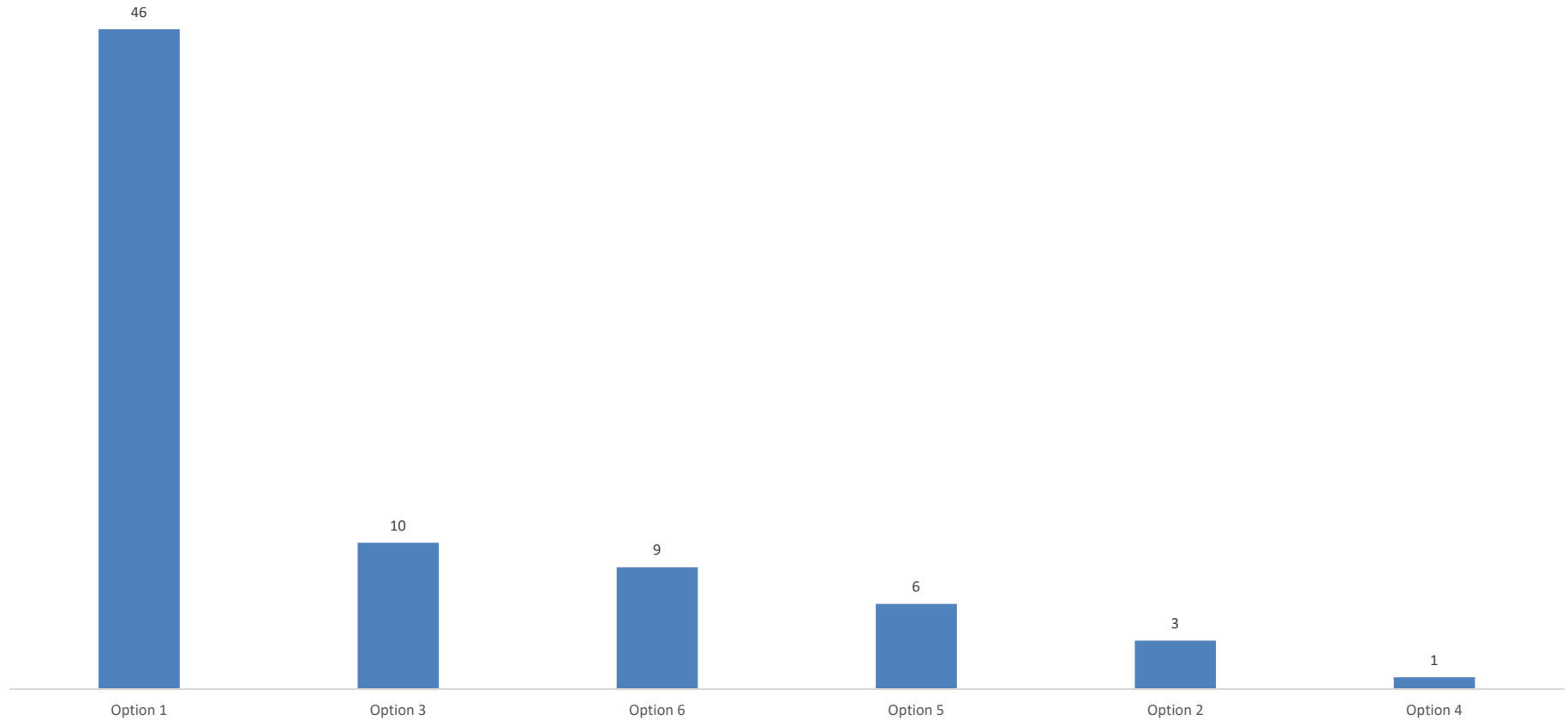
- Almost half (44.4%) of those completing the survey took advantage of the opportunity of responding to an open-ended question asking them what other considerations they would like to make Council aware of to comment regarding cost issues – either related to the capital costs of the sewer separation project or to long term costs related to operation/maintenance.
- One third (32.5%) of respondents either expressed their strong preference for a gravity-based system, or indicated negative feelings about pumps and generators. They included comments such as: pumps and generators are unfair/ridiculous/an unnecessary expense, too big a burden, unacceptable, etc.; pumps are a concern because of power outages (especially lengthy and severe in the Uplands); Oak Bay is predominantly gravity, therefore Uplands should be too; pumps are unreliable and require frequent/costly maintenance; gravity is the least costly in the long term, requires least maintenance, relies on fewer pumps, etc.; and gravity always works/is most appropriate/is a natural solution (2.6%).
- A number of those responding to the survey (9.4%) said that they felt the solution should be fair for Uplands residents who already pay high taxes, indicating that they want Uplands property owners to be treated the same as any other Oak Bay neighbourhood, that treating the Uplands differently is “discriminatory” and that the eventual decision should reflect the best interests of all taxpayers in Oak Bay.
- A smaller percentage of respondents (8.5%) suggested a number of alternative solutions, such as alternate storm water disposal methods for homeowners, solving property problems on an individual basis, separate street drains, holding tanks, etc.
- Interestingly, some respondents (6.8%) encouraged Council to ensure they focus on the best solution for the long term, and to do it correctly/once/right even if this might mean the least expensive solution was not adopted.





Preferred Technical Option

Preferred Technical Option
(% Ranked First)



Q8 Six options have been developed by engineering firm McElhanney Consulting Services Ltd. To separate the combined sewer in the Uplands. Please rank the six technical options in order of your preference.

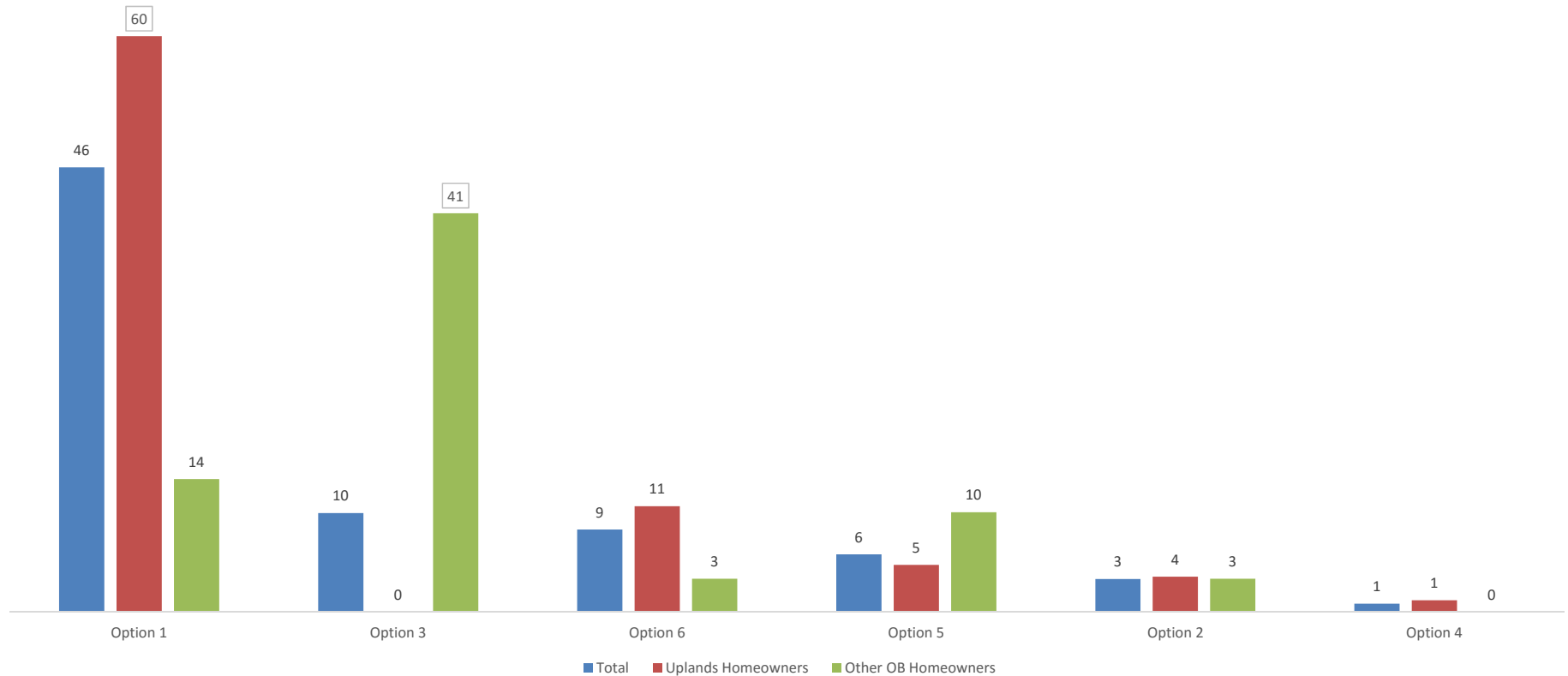
Option 1 was the technical option preferred by the highest percentage of respondents, with 46% of all those responding to the survey ranking Option 1 first in order of preference, followed by Option 3 (10%) and Option 6 (9%).





Preferred Technical Option

Preferred Technical Option
(% Ranked First)



Q8 Six options have been developed by engineering firm McElhanney Consulting Services Ltd. To separate the combined sewer in the Uplands. Please rank the six technical options in order of your preference.

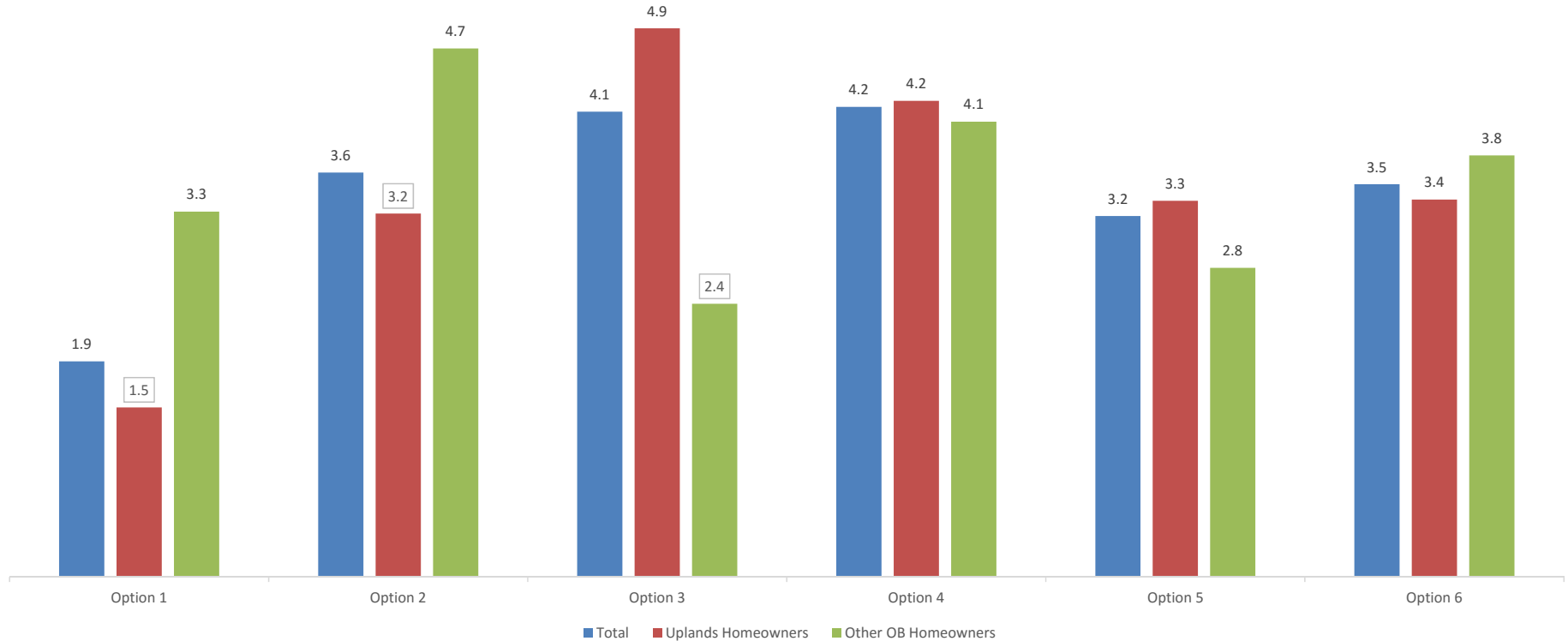
Uplands homeowners were significantly more likely than other OB homeowners to rank Option 1 as their most preferred of the six technical options (60% vs. 14%). Other OB homeowners were significantly more likely than Uplands homeowners to rank Option 3 as their most preferred option (41% vs. 0%).





Preferred Technical Option

Preferred Technical Option
(Mean Ranking)



Q8 Six options have been developed by engineering firm McElhanney Consulting Services Ltd. To separate the combined sewer in the Uplands. Please rank the six technical options in order of your preference.

N.B. Lowest mean score indicates highest ranking of preference. Option 1 was the most preferred among all survey-takers, with an average ranking of 1.9. Uplands homeowners were significantly more likely than other OB homeowners to rank Option 1 and Option 2 as their most preferred of the six options (mean ranking 1.5 vs. 3.3 and 3.2 vs 4.7 respectively). Other OB homeowners were significantly more likely than Uplands homeowners to rank Option 3 as their most preferred technical option (mean ranking 2.4 vs 4.9). The differences between Uplands homeowners and other OB homeowners in their average rankings of the remaining technical options were not significant.



Reasons for Preference

- When they were asked to indicate the one or two reasons why they preferred the technical option they had ranked “1”, almost half of those responding to the survey (47.9%) said their preference was related to gravity systems being “better”, or to negative feelings about pumps. These comments were completely consistent with (and in some cases repeated) the responses made to Q7, the earlier open-ended question.
- More than one third of the responses (35.0%) indicated that the preference for a specific option was related to cost issues, whether the lowest cost to Uplands property owners or to the District. Some of these comments included specific references to long term costs or operating/maintenance costs, but not all comments cited either capital costs or operating/maintenance costs; nor did all of the comments specifically mention which parties would bear the costs to which the comment referred (i.e. Uplands property owners or the District).
- One quarter of respondents (24.8%) related their preference for their first choice option to their concern that the current pipe be used for storm water and the new pipe be used for the sanitary system; several said specifically that if the old pipes were to leak, storm water leakage would be acceptable but leaking sewage would not be acceptable.
- The reasons given by less than one quarter of people (17.1%) for their preferred option were because they perceived the option as being less disruptive.



Conclusions and Indicated Actions

- Respondents to the survey were drawn heavily from Uplands homeowners and, within this group, were almost entirely owners of properties located in the Humber/Rutland catchment area so the survey findings must be interpreted within this context. That said, several conclusions can be drawn from the data:
 - While two of the most important considerations, as rated by respondents, clearly related to the fact that most were the owners of property in the Uplands (minimizing capital costs to Uplands property owners and minimizing operations/maintenance costs to Uplands property owners), making the most environmentally appropriate use of existing pipe was also rated highly in terms of its importance, regardless of whether the respondent was an Uplands homeowner or not.
 - In addition to making the most environmentally appropriate use of the existing pipe, ensuring the project is completed in a timely fashion and minimizing both capital and operations/maintenance costs to the District were important to other OB homeowners.
 - There are clearly a number of Oak Bay residents who will be watching the cost implications of the sewer separation project closely. Comments regarding cost issues – either related to the capital costs for installation or the long term ongoing costs of operating/maintaining the system – were made by almost half of the respondents to the survey. A number expressed concerns about the costs related to a specific technical option, while others were concerned about possible capital cost overruns, or (depending on where one’s property was located) about costs being unduly onerous for Uplands residents, or about all Oak Bay taxpayers being required to share a cost burden that Uplands homeowners should be shouldering.
 - Preference for a gravity-based system was strongly expressed by between one third and one half of respondents to the survey; this was either expressed as a positive about gravity systems (they are “better”) or as a negative about systems requiring pumps and/or generators. Comments such as “let gravity do the work” or “gravity never fails” were made in response to both of the two open-ended questions in the survey.
 - Option 1 was clearly the most preferred of the six technical options among Uplands homeowners, however, other OB homeowners were significantly more likely to prefer Option 3. The differences between Uplands homeowners and other OB homeowners in their average rankings of the remaining technical options were not significant.

