

**City of Nanaimo
Urban Forest Study- City Trees and You
July, 2008**



Results of Public Opinion Survey

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1.0 Introduction

The purpose of this report is to describe the results of a survey conducted in Nanaimo in January and February, 2008 measuring public opinions regarding trees in the city (the urban forest). The survey results will be used to inform the development of the “Urban Forest Management Plan” for the City of Nanaimo, and constitute one component of public input designed to develop this plan.

The purpose of the Urban Forest Management Plan is to “guide Nanaimo’s future efforts to increase overall tree canopy cover, support the protection of trees, improve tree health, and maximize the benefits of trees for all residents.” Urban forests can provide many benefits to the community, such as flood water control, erosion control, and visual appeal. On the other hand, the urban forest can create some concerns. Some people may be concerned about blockage of views, the effort to clear falling leaves and branches, and other issues.

The ultimate success of the Urban Forest Management Plan will depend on public support, and this is linked to public perceptions of the possible benefits and concerns related to urban forests. This study measures these public perceptions of the current urban forest, as well as public views on the management practices of the current urban forest in Nanaimo.

2.0 METHODOLOGY

2.1 Use of Mail Survey Approach. The approach used for conducting this study was with a mail survey. Compared to other approaches (telephone, face to face, on line), mail surveys have the following advantages:

- The cost is less than face to face or telephone interviews. Although an on-line survey is cheaper, it assumes all respondents have access to internet, and that email addresses are known for all households.
- Mail surveys are less intrusive than other approaches because respondents can complete the questionnaire at a time convenient to them.
- Mail surveys provide a higher level of confidentiality, since respondents are not seen or spoken to by interviewers. Confidentiality is an important ethical concern. In addition, confidentiality usually leads to more candid responses.
- Related to confidentiality, is the advantage that every respondent receives exactly the same information with questions presented the same way to all respondents. This reduces the “interviewer effect” that sometimes occurs with telephone and face to face surveys.

However, mail surveys present some challenges, as follows:

- Compared to other approaches, mail surveys take longer to obtain results, due to the postal system and the length of time people take before mailing back completed questionnaires. For this project, sufficient time was available, so time was not a concern.
- Many mail surveys experience low response rates, raising concerns about sample size and non-response bias (does the sample truly represent the views of a population). However, if properly implemented, mail surveys can produce acceptable response rates (see discussion below).
- Compared to personal interviews or telephone interviews, there is no opportunity in a mail survey to clarify any questions that respondents may have. In this study we addressed this concern by providing several places where respondents could write in their own comments. In addition, a phone number was provided for people to call with their questions.

2.2 Implementing the Mail Survey. In order to provide reliable and accurate information through a mail survey, it is important to follow procedures that engage the respondent appropriately. This study used techniques developed by

Salant and Dillman (1994), which have shown an improved response rate and response quality in mail surveys by addressing methods for motivating respondents and reducing the difficulty of completing a mail survey. This approach is outlined in the following:

- Design the questionnaire as a booklet, which is appealing to the eye. For example, the cover page should contain no questions, but should provide an interesting illustration (e.g. photos of street trees), as well as a survey title, and the name of the agency conducting the study (City of Nanaimo).
- Keep the questionnaire short; focus only on the essential information needed.
- Create interest with the respondent by asking interesting, relevant questions first.
- Make all questions easy to answer (e.g. by providing numbers to circle). Provide some optional open- ended questions for some respondents who may have the time or interest to expand on their responses.
- Provide a short cover letter that is motivational to the respondent, providing a brief and clear explanation of the purpose of the study, how the respondent and the community will benefit from the results of the study, and measures taken to protect the confidentiality of the respondent.
- Provide a return envelope that is pre addressed and with postage attached. This reduces the cost and inconvenience to the respondent.
- Personalize the mail out package by printing the respondent's name on outgoing mail, and using real postage rather than bulk rate postage options (often associated with "junk mail").
- Follow up one week after the first mail out with a reminder letter sent to all people in the sample.
- Do not place the name of the respondent on the questionnaire – but place a unique number on each questionnaire, that is matched with the sample list so that when questionnaires are returned it is possible to know who has not yet returned the questionnaire.
- After two weeks send a follow up package to non-respondents only. This follow up package is similar to the first mailing, but contains a revised cover letter, stressing in different language the importance of the study and the importance of hearing from each respondent.

Collectively these approaches serve to motivate the respondent toward responding to the questionnaire, and providing thoughtful responses. The actual implementation of the Nanaimo City Trees survey followed these procedures, as follows:

- November 27, 2007. Focus group to discuss issues related to urban forestry, and the process for developing the Nanaimo Urban Forest Management Plan.
- November, 2007 – January, 2008. Development of questionnaire, and development of sample list (2000 randomly selected names and addresses)
- January 18, 2008. First package mailed out, containing cover letter, questionnaire, and return envelop with postage.
- January 29, 2008. Reminder letter sent to all respondents.
- February 18, 2008. Follow up package sent to those in the sample who had not yet responded. This package contained a replacement questionnaire, revised cover letter, and return envelop with postage.
- February 27, 2008. Last day for accepting returned questionnaires.
- March 3, 2008. Data entry onto excel spreadsheet completed. Data transferred into SPSS software for analysis.
- March 11, 2008. Draft report prepared.
- June 16, 2008. Second focus group conducted, to review the draft survey findings.
- July, 2008. Final report submitted.

2.3 Survey Sample. The sample list contained the names of 2000 randomly selected residents of Nanaimo. Using the approaches described above, a total of 1059 responses were obtained. Of the original 2000 surveys sent out, 205 envelopes were returned unopened, due to changed addresses or the difficulty of delivering to apartment buildings. In summary, the actual usable sample list contained 1795 names, so the 1059 completed returns represent a response rate of 59%.

With a sample size of 1059 it is possible to estimate the “margin of error” (accuracy) of the sample. Based on this sample of 1059 completed questionnaires, the margin of error is plus or minus 3.1% at the 95% confidence level. This means that the sample results should be a very accurate portrayal of the views of the adult population of Nanaimo, with all results within 3.1% of true values. For example, in Table 1 below, the survey results report that 87.5% of the sample lived in houses. This sample result is a prediction of the

true value for the total Nanaimo population, and the sample result likely is within 3.1% of this value (between 84.4% and 90.6%).

Additional checks on the sample are provided in Table 1. This table compares information from the 2006 census for Nanaimo with characteristics obtained from returned questionnaires. A number of comparisons are important to note:

- With regard to age, gender, and household size, the sample compares well with the census data.
- With regard to ownership/renting of home, the survey sample under represents renters and those living in apartments (mainly the same group probably). As noted above, it was difficult for Canada Post to deliver to apartments and many of those questionnaires were returned by Canada Post. Although this is unfortunate, the sample still represents most elements of the population quite well.
- The sample consists of a good cross section of people who have lived in Nanaimo for various lengths of time, and of people who have lived in their present home for various lengths of time. Comparable census data for these characteristics is not available.

The sample was further analyzed by postal code, so that survey results could be compared between north Nanaimo, central Nanaimo, and south Nanaimo, with sub sample sizes as follows:

- North Nanaimo = 583 respondents
- Central Nanaimo = 190 respondents
- South Nanaimo = 280 respondents
- Missing = 6 respondents

With each survey response, comparisons between regions were computed, and an appropriate statistical test was applied (chi squared, or analysis of variance), to determine which of the apparent differences between regions are statistically significant.

Table 1. Sample Characteristics

Characteristic	Sample (%)	2006 Census
Type of accommodation (Q13)		
House	87.5	71.8
Townhouse	5.6	4.0
Apartment or condominium	1.5	20.5
Other	4.7	3.5
Own or rent (Q14)		
Own	97.6	69.7
Rent	2.4	30.1
Number living in home (Q15)		
1 person	15.3	27.5
2 persons	50.6	42.7
3 persons	11.7	13.3
4 – 5 persons	15.8	15.0
More than 5 persons	5.9	1.6
Years lived in present home (Q16)		
Less than 2 years	7.1	
2 – 5 years	29.3	
6- 10 years	20.0	
11- 15 years	14.8	
16- 20 years	12.1	
More than 20 years	17.2	
Years lived in Nanaimo (Q17)		
Less than 2 years	3.2	
2 – 5 years	13.2	
6- 10 years	12.6	
11- 15 years	11.6	
16- 20 years	14.1	
More than 20 years	45.2	
Gender (Q18)		
Male	46.5	48.0
Female	53.5	52.0
Age (Q19)		
19-24 years	0.4	5.6
25-40 years	12.9	14.3
41-50 years	21.7	14.9
51-64 years	32.3	26.7
65 years or older	32.7	20.8

3.0 SURVEY RESULTS

Survey results are displayed in two formats. In the text of the results section individual results are summarized and presented with graphical techniques for ease of reading and interpretation. More detailed summaries of the results are included in the appendices.

Also, survey results compared regions of Nanaimo: north Nanaimo, central Nanaimo, and south Nanaimo. As stated in the methodology section of this report, when comparing results between regions, it is important to apply statistical tests to determine if each comparison is “statistically significant”. An apparent difference between regions can be interpreted in two ways:

- The sample data reflects true differences in the population, in which case the apparent differences are said to be “statistically significant”, or,
- The sample data reflect “random sampling effects” within the sample, rather than a true difference in the population. Statistical tests make it possible to estimate the likelihood of the sampling effects outcome, and if this probability is relatively small (5% or smaller) than we can infer that the apparent differences in regional responses are “significantly different”.

With each survey response, comparisons between regions were computed, and an appropriate statistical test was applied (chi squared, or analysis of variance), to determine which of the apparent differences between regions are statistically significant.

3.1 Awareness of City Trees. In this first section of the questionnaire respondents were asked to reflect on their homes and neighbourhoods in terms of the relative abundance of street trees. Figures 1 and 2 illustrate these reflections. Figure 1 reveals that over 80% of homes have trees on the residential property, and the number of trees varies considerably. Comparisons between regions of Nanaimo reveals that people in north Nanaimo report having more residential trees compared to people living in central Nanaimo; but there is no statistical difference between north and south Nanaimo, or between central and south Nanaimo (see Appendix A, Table 2).

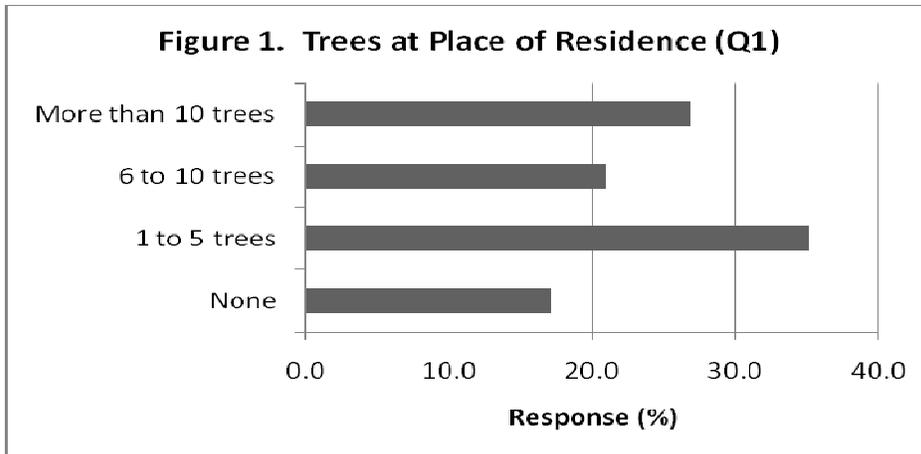
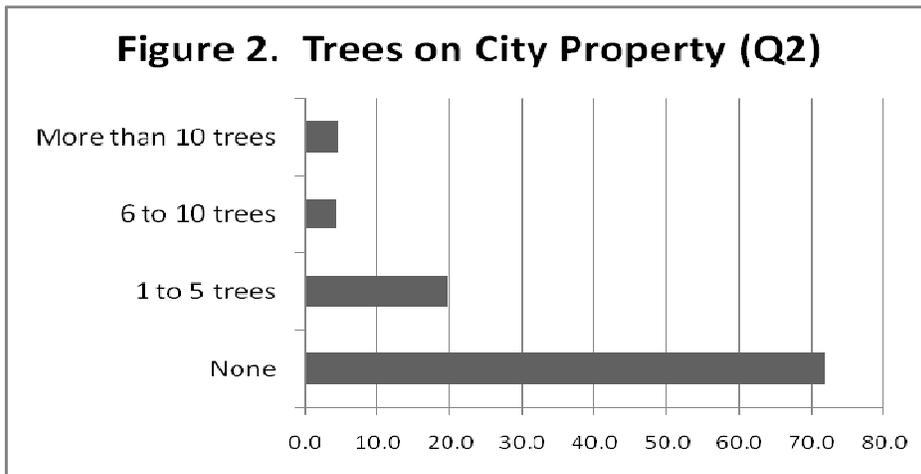


Figure 2 indicates that many homes (over 70%) do not have street trees on city property in front of places of residence. Comparisons between regions of the city (see Appendix A, Table 3) indicate no significant differences between north, central or south Nanaimo in the number of trees on city property.



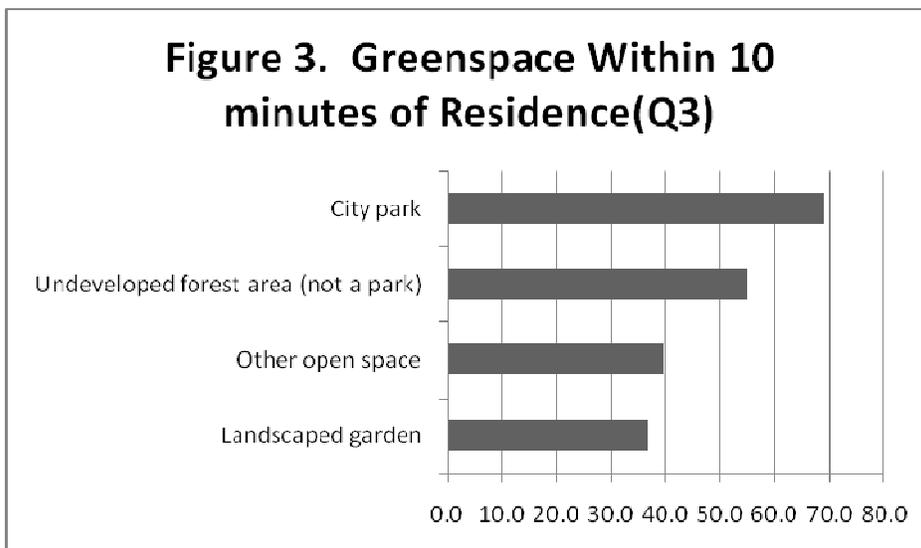
As well as trees in or adjacent to place of residence, it was also important to determine the proximity of treed areas in the same neighbourhood (within a 10 minute walk). Figure 3 indicates that most residents (nearly 70%) have a city park nearby (within a 10 minute walk), and a large number (over 50%) also have an undeveloped forest nearby. A smaller number (about 36%) have a landscaped garden nearby. Overall, nearly all respondents indicated they had at least one of these nearby:

- 4.5% had none of these types of green space nearby
- 30.8% had one type of green space nearby

- 30.5% had 2 types of green space nearby
- 23.3% had 3 types of green space nearby
- 10.0% had 4 types of green space nearby

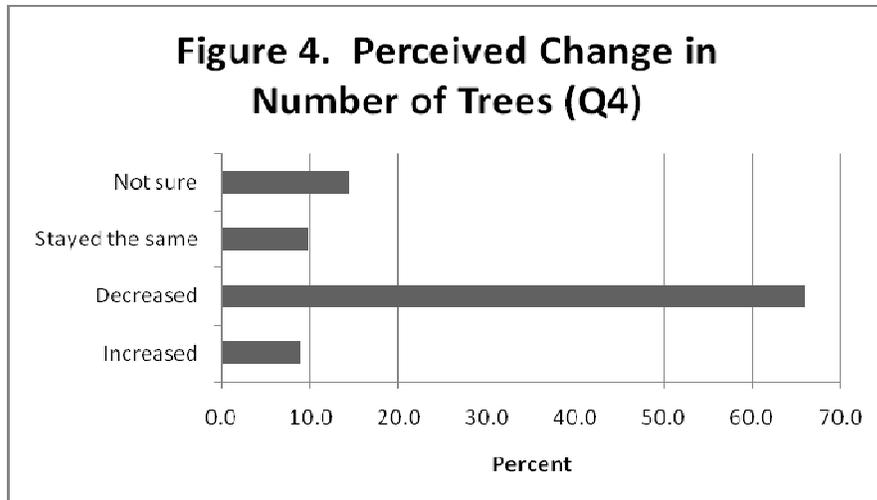
In addition, statistical comparisons between regions indicate statistically some significant differences between regions of Nanaimo (see Appendix A, Table 4) regarding:

- Large open spaces. More in north and south Nanaimo, compared to central Nanaimo.
- Undeveloped forest areas. More in north and south Nanaimo.
- City parks. More in central and south Nanaimo, compared to north Nanaimo.



Finally, respondents were asked to indicate if they felt the number of trees seems to have increased, decreased or remained the same. Figure 4 reveals that about 67% feel that the number of trees has decreased.

Analysis by region of the city (Appendix A, Table 5) indicates that residents of north Nanaimo are more likely to feel that the number of tree in their region have decreased, as compared to the perceptions of residents of central and south Nanaimo.



3.2 Perceived Benefits of City Trees. Public support for urban forests depends in part on the perceived benefits of urban trees. Figure 5 presents a summary of perceived benefits. Respondents were presented with a list of possible benefits, and were asked to indicate for each statement if they viewed it as “minor benefit”, “major benefit”, “not a benefit”, or “not sure”. Each bar in Figure 5 represents the proportion of respondents who viewed each possible benefit as a “major benefit”. Beside each statement in brackets is the mean response, which can vary from 1 to 3, where 1= not a benefit and 3= major benefit (not sure = 0).

Results in Figure 5 indicate that the strongest perceived benefits (with at least 70% indicating major benefit) are:

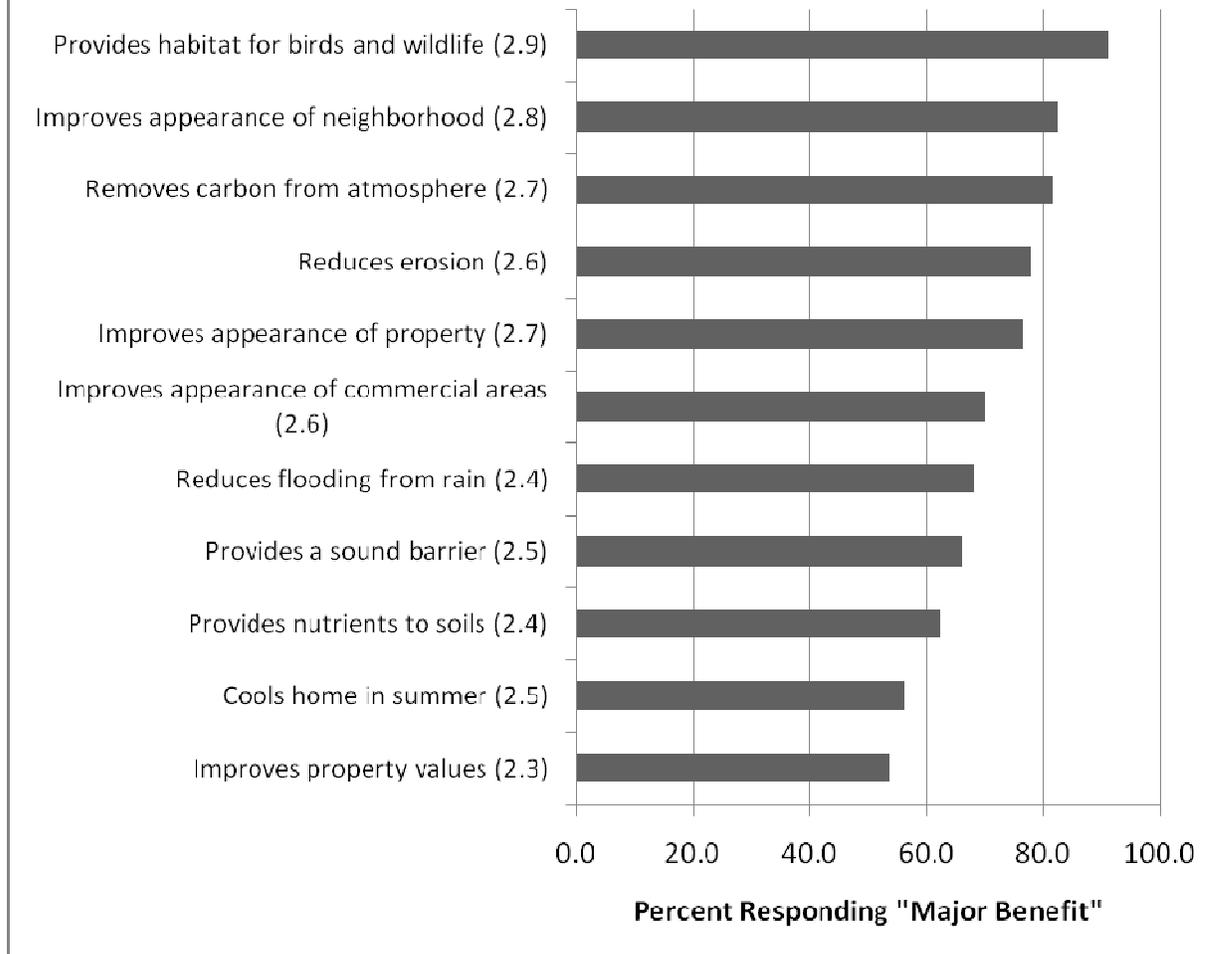
- Provides habitat for birds and wildlife
- Improves appearance for neighbourhood
- Removes carbon from atmosphere
- Reduces erosion
- Improves appearance of property

The lowest perceived benefit was for “improves property values”, but over 50% of respondents felt this was a major benefit.

Comparisons by region of the city indicate few statistically significant differences; only regarding two benefits:

- Improves appearance of property (lower perception in central Nanaimo).
- Provides habitat for birds and wildlife (lower perception in central Nanaimo).

Figure 5. Perceived Benefits of City Trees (Q5)



Respondents were provided with the opportunity to comment on other possible benefits (Q6). These open ended responses were analyzed and placed into categories (See Appendix B for a representative selection of the comments), as follows:

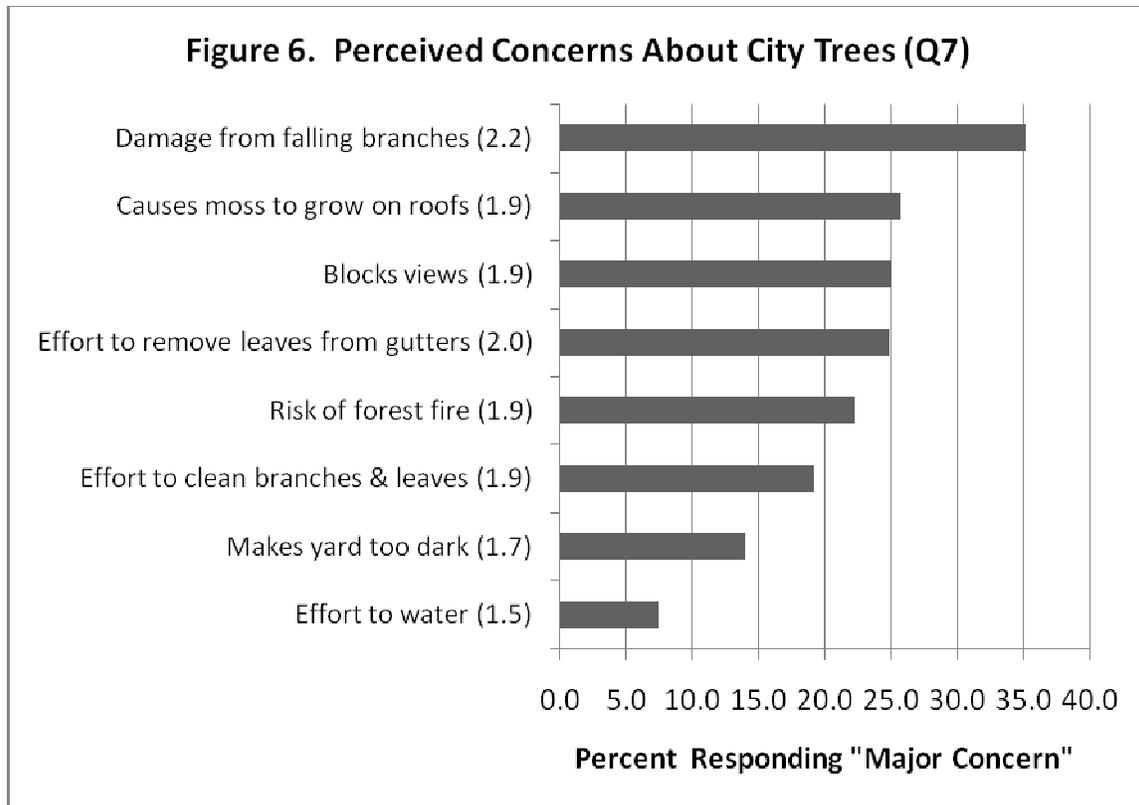
- Privacy (56 comments)
- Visual (53 comments)
- Health – feel good (56 comments)
- Good for children (17 comments)
- For wildlife (12 comments)
- Improves development (1 comments)

- Reduces cost to landscape (2 comments)
- Provides firewood (3 comments)
- Food source (11 comments)
- Noise reduction (4 comments)
- Provides shade (20 comments)
- Wind reduction (21 comments)
- Future (2 comment)
- Other (52 comments)

3.3 Perceived Concerns of City Trees. Public support for urban forestry is influenced by perceived benefits and concerns. Looking now at perceived concerns, the questionnaire provided a list of possible concerns and asked respondents to rate each statement as “not a concern”, “minor concern”, “major concern” or “not sure”. Figure 6 presents a summary of these responses where each bar indicates the percent of the sample who responded “major concern.” Beside each statement in bracket is the mean score, derived from scoring each response where 1 = not a concern, 2 = minor concern, 3 = major concern, and 0 = not sure.

Overall, concerns are rated much lower than benefits (compare Figure 6 with Figure 5), with the most significant concerns, ranging from 25% to 35% rating of “major concern” are:

- Damage from falling branches
- Causes moss to grow on roofs
- Blocks views
- Effort to remove leaves from gutters



When comparing these responses by region of the city, only one significant difference was observed: damage from falling branches, which was lower in south Nanaimo (see Table 7B in Appendix A).

In addition to these findings, respondents were provided the opportunity to write in any additional comments or concerns. A representative selection of these open ended responses are listed in Appendix B (Table 12), and a summary of these additional comments (those not listed above) is provided below:

- Damage to power lines (36 comments)
- Damage created when roots enter drains and pipes (16 comments)
- Damage when roots interfere with foundations, sidewalks, and driveways (13 comments)
- Block street signs and visibility of traffic (21 comments)
- Danger and property damage (64 comments)
- Fire risk (5 comment)
- Moss on roof and grass (6 comments)

- Insects and disease (9 comments)
- Financial (11 comments)
- Other (53 comments)

3.4 Perceived Importance of City Trees. As stated above, public support for city trees and the Nanaimo Urban Forestry Plan will be influenced by perceived benefits and concerns regarding city trees. The discussion above suggests that perceived benefits are stronger than perceived concerns for most respondents, so we would expect these findings to lead to generally positive support for city trees. This seems to be the case. The questionnaire (Question 9) asked respondents to rate a series of statements by responding “not at all important”, “somewhat important”, “very important”, or “not sure”. Figure 7 displays the overall importance that respondents attach to city trees, reporting on the percent of respondents who indicate “somewhat important” or “very important” to each statement. In brackets beside each statement, the mean response is reported, where 1 = not at all important, 2 = somewhat important, 3 = very important, and 0 = not sure.

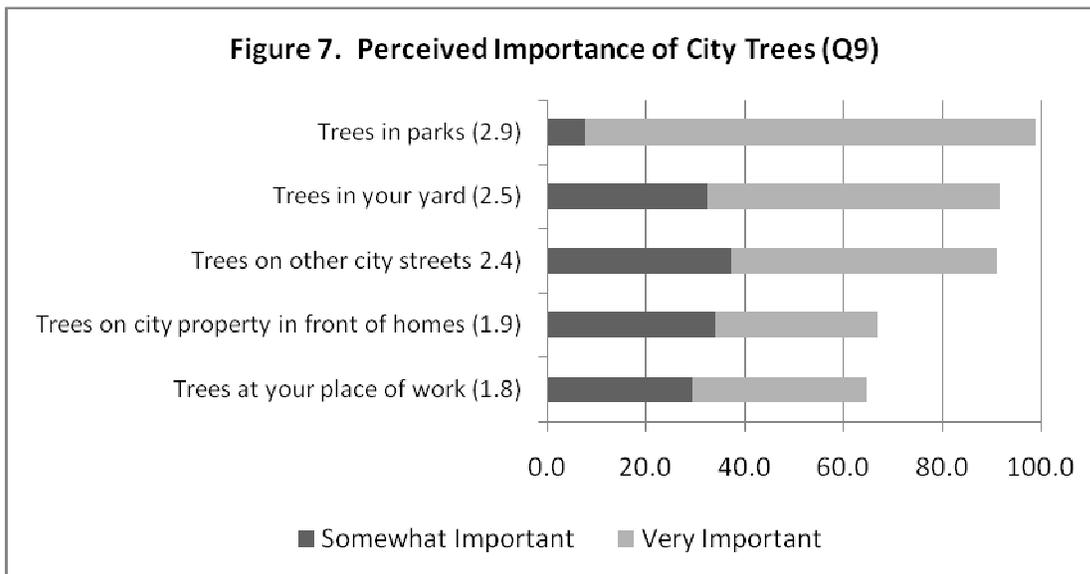


Figure 7 reveals high levels of importance for city trees, with the highest levels of support for trees in parks, trees in your yard, and trees on other city streets (not in front of homes). The lowest rating was for trees at your place of work, but here over 60% of respondents felt trees were somewhat or very important.

When responses were compared between north, central and southern Nanaimo, no significant differences between regions were apparent (see Table 8B in Appendix A).

3.5 Priorities for Managing City Trees. The final section of the questionnaire examined public support for tree related programs and services provided by the City of Nanaimo. For each statement, respondents could indicate their rating as “low priority”, “medium priority”, “high priority” or “not sure.” These responses are summarized in Figure 8 below, where each bar represents the percent responding as “high priority.” In brackets beside each statement is the mean response, where 1 = low priority, 2 = medium priority, 3 = high priority, and 0 = not sure.

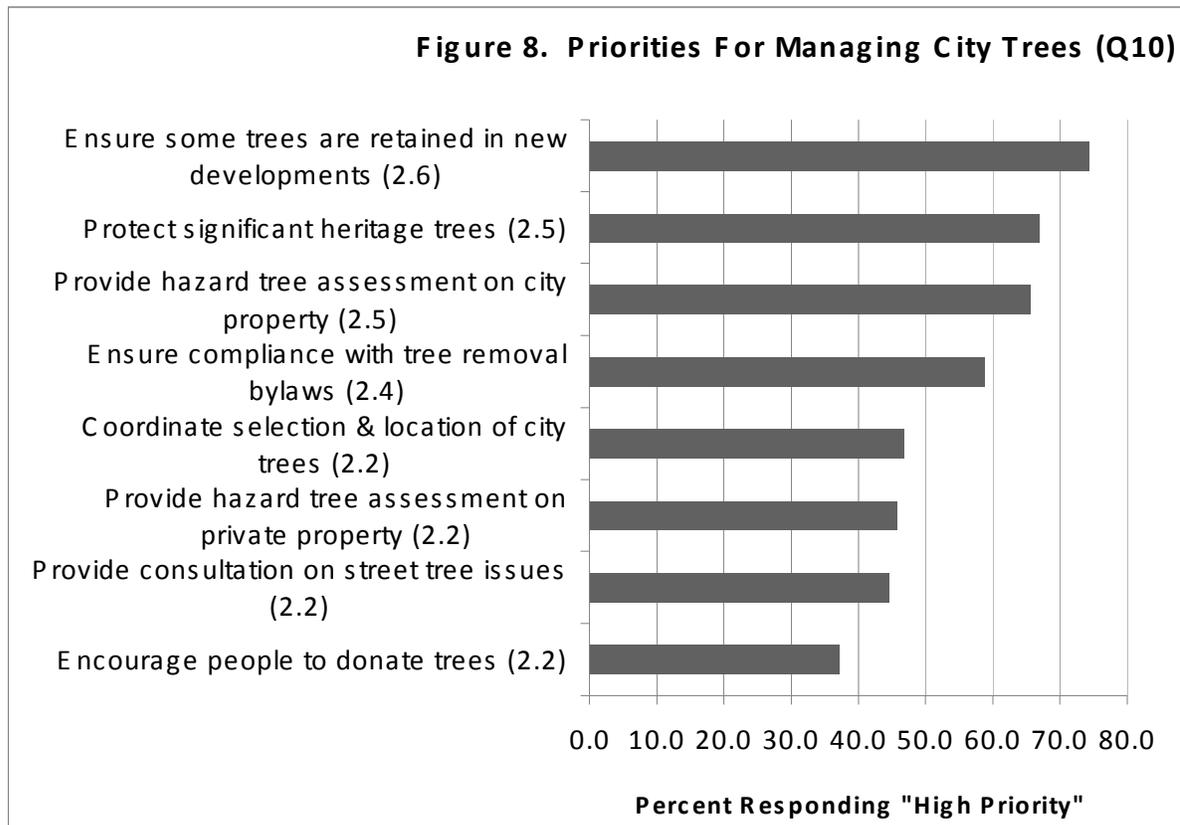


Figure 8 indicates strong support for most programs, and highest priority attached to the following (each with over 50% of respondents providing a “high priority” rating):

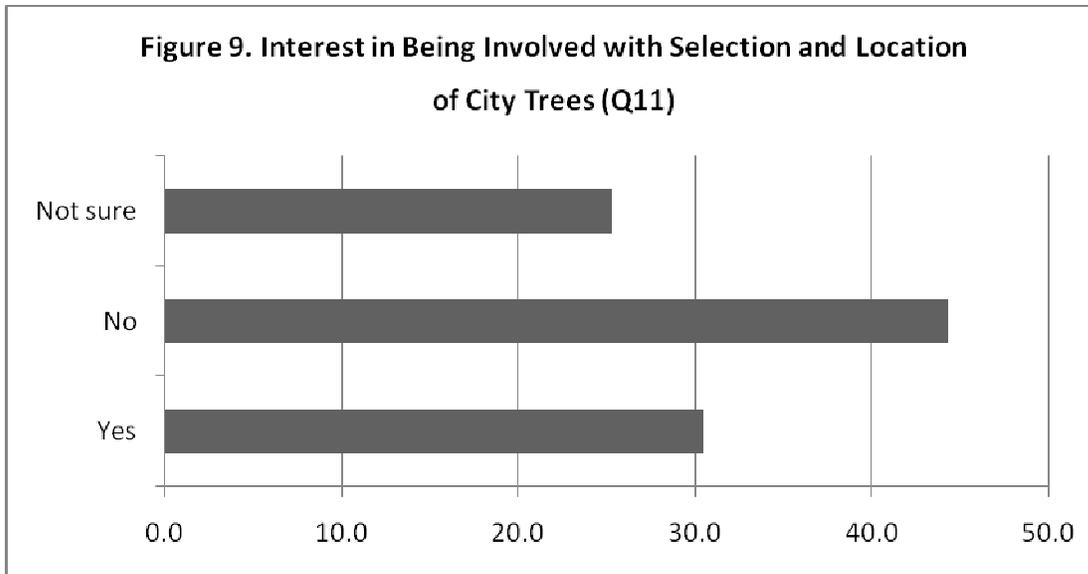
- Ensuring some trees are retained in new developments;
- Protecting significant heritage trees;
- Providing hazard tree assessment on city property; and,
- Ensuring compliance with tree removal bylaws.

These priorities are consistent across different regions of the city, with the exception of “ensure some trees are retained in new developments”, which was rated slightly higher in north Nanaimo (see Appendix A, Table 9-B).

In addition to these programs, respondents offered a number of additional suggestions that are summarized below (see Appendix B for listing of all comments):

- City should do more pruning of street trees, and control of tree height;
- City should do some thinning of trees to allow some views;
- City should provide curb side pick up of branches and leaves;
- City should offer a mulching service for branches and leaves;
- City should do more to manage diseases in trees;
- City should plant the “right trees” that are strong and need little maintenance;
- More ornamental trees should be provided in the downtown area;
- City should educate the public about the value of street trees;
- City should educate the public on proper tree selection and maintenance of trees;
- Ensure that some trees are left in new developments;
- City should provide a web site providing information about trees, tree services, and how to maintain trees;
- City should provide a hot line where people can call in for information, or to report concerns;
- City should work with local nurseries for donations and sponsorships for cost reductions; and,
- City should not over regulate trees on private property, but should focus on trees on city property.

Related to this discussion, respondents were asked to indicate their willingness to be involved in the selection and location of street trees in their neighborhood. Responses illustrated in Figure 9 below indicate that 31% would welcome this opportunity. Analysis of responses by region indicated no significant differences between north, central and south Nanaimo (see Appendix A, Table 10-B).



4.0 SUMMARY AND RECOMMENDATIONS

These results indicate strong support from the residents of Nanaimo for sustaining urban forestry in the City. Most residents support having trees in their yard, on city streets in front of their home and elsewhere, including city parks.

This support for urban forestry stems from the perceived benefits for city trees. Not surprisingly, most residents felt that trees improve the appearance of their residence and of their neighbourhood. In addition, most residents valued the ecological values of trees; for example in providing habitat for birds and wildlife, reducing erosion, reducing flooding, and removing carbon from the atmosphere. These responses suggest a strong understanding of natural processes and support for environmental stewardship within an urban environment. This is an important finding, and an opportunity to build strong partnerships in stewardship between the Nanaimo Parks Department and the Nanaimo community.

However, to sustain this relationship and community support, some of the issues raised in this study will need to be addressed. Some suggestions are provided below:

- *Damage from falling branches.* This comment appeared several times in the open ended questions. The risk can be reduced by increasing individual understanding of tree care management, the application of proper pruning techniques, the proper selection and location of trees, and regular tree assessment.

- *Cause moss to grow on roof.* This can be reduced through the application of moss reducing products to roof surfaces. The selection and placement of trees can also reduce the probability of moss growth.
- *Block views.* This is a complex issue, with a range of responses, depending upon the specific situation. For example, city trees blocking views could be pruned or thinned to allow for some views without requiring tree removal. On the other hand, some people plant trees that obscure the views of neighbours – this situation may require bylaws that are sensitive to the impacts of trees on surrounding properties.
- *Effort to remove leaves from gutters.* There are a variety of ways this issue can be reduced, including: attention to the location of trees, selection of trees, and regular pruning.
- *Risk of forest fire.* The City of Nanaimo has developed guidelines regarding the proximity of urban homes to mature forest stands where forest fires are most likely to originate. Perhaps these guidelines need to be made more apparent to residents.
- *Effort to clean branches and leaves.* This issue can be reduced by exploring ways of providing mulching and street side pickups of garden refuse.
- *Make yards too dark.* As with other issues discussed above, this problem can be reduced through better tree selection and placement as well as pruning.
- *Effort to water.* Not many people viewed this as a problem, but this problem can be reduced by using trees and shrubs that require less water, including native species.
- *Trees blocking street signs and reducing visibility of traffic.* This comment was raised several times by respondents. However, such comments appeared in the open ended portions of the questionnaire, so it is difficult to assess how prevalent this concern may be. Nevertheless, the City of Nanaimo will need to be vigilant in pruning to reduce this hazard. Providing public access to information and request for service, through a web site or hot line, would also assist in an individual's ability to report this situation.

Many of the comments raised here relate to the approaches developed for managing trees in the city. In this regard, there was strong support evidenced for a number of programs provided by the City of Nanaimo, including:

- Retaining some trees in new developments

- Protecting significant heritage trees.
- Providing hazard tree assessment
- Ensuring compliance with tree removal bylaws.
- Coordinating the selection and location of street trees.
- Providing consultation on street tree issues.

The many comments provided on survey questionnaires and the high response rate to the survey suggests a strong interest in the public to be heard and involved regarding the management of trees in the city of Nanaimo. This support can be sustained and improved by developing a communication strategy, built around the provision of an effective web site. This website could provide information about managing trees and plants on private property, seasonal tips for yard maintenance, responses to frequently asked questions, links to city bylaws and other resources. This would be an effective public relations tool, and would contribute to sustaining public support for the urban forest.

APPENDIX A: Detailed Tables of Results

Table 2. Trees on Place of Residence (Q1)

Trees on Place of Residence	Percent			
	Total Sample	North Nanaimo	Central Nanaimo	South Nanaimo
None	17.1	9.0	7.1	10.5
1 to 5 trees	35.1	37.4	48.4	34.5
6 to 10 trees	20.9	21.9	24.3	24.0
More than 10 trees	26.8	32.7	20.1	30.9
Mean	11.7	12.6	8.6	12.0

Analysis of variance = .044 (* significantly more residential trees in north Nanaimo, compared to central Nanaimo; no difference between north and south Nanaimo, or between central and south Nanaimo)

Table 3. Trees on City Property - Street (Q2)

Trees on City Property - Street	Percent			
	Total Sample	North Nanaimo	Central Nanaimo	South Nanaimo
None	71.8	72.5	76.8	66.7
1 to 5 trees	19.6	17.9	19.2	23.3
6 to 10 trees	4.2	4.9	1.2	4.9
More than 10 trees	4.5	4.7	2.8	5.2
Mean	2.2	2.2	1.3	2.7

Analysis of variance = .22 (* no significant difference in trees on city property when comparing responses from north, central and south Nanaimo.

Table 4. Green space Within 10 Minutes Walk of Residence (Q3)

Type of Green Space	Percent Responding "Yes"				Chi-squared Probability
	Total Sample	North Nanaimo	Central Nanaimo	South Nanaimo	
Landscaped garden	36.8	35.2	40.3	38.1	.64
Other open space	39.7	40.0	30.6	45.0	.00
Undeveloped forest area (not a park)	54.9	64.8	29.0	51.6	.00
City park	69.0	64.4	80.1	71.0	.00

Chi squared results indicate statistically significant differences between regions of Nanaimo regarding:

- Large open spaces (significance = .00). More in north and south Nanaimo.
- Undeveloped forest areas (significance = .00). More in north and south Nanaimo.
- City parks (significance = .00). More in central and south Nanaimo.

There was no significant difference between regions regarding close access to landscaped gardens (significance = .64)

Table 5. Perceived Change in Number of Trees (Q4)

Response	Percent			
	Total Sample	North Nanaimo	Central Nanaimo	South Nanaimo
Increased	8.9	7.4	11.2	10.6
Decreased	66.0	73.0	62.6	55.7
Stayed the same	9.8	8.9	8.6	12.8
Not sure	14.4	10.7	17.6	20.9

Chi squared results (probability = .00) indicate that residents of north Nanaimo are more likely to feel that the number of tree in their region have decreased, as compared to the perceptions of residents of central and south Nanaimo.

Table 6-A. Perceived Benefits of City Trees (Q5)

Possible Benefits of City Trees	Response (%)				Mean
	Not a Benefit 1	Minor Benefit 2	Major Benefit 3	Not Sure 0	
Cools home in summer	5.6	37.0	56.2	1.2	2.5
Improves appearance of property	3.5	18.9	76.6	1.1	2.7
Improves appearance of neighbourhood	2.8	13.9	82.5	0.8	2.8
Provides a sound barrier	5.4	25.4	66.0	3.2	2.5
Improves appearance of commercial areas	5.1	21.9	70.0	3.0	2.6
Improves property values	5.8	32.1	53.8	8.4	2.3
Reduces flooding from rain	4.4	17.9	68.0	9.7	2.4
Reduces erosion	3.0	13.5	77.9	5.6	2.6
Provides nutrients to soils	4.5	24.4	62.5	8.6	2.4
Removes carbon from atmosphere	1.1	11.8	81.7	5.5	2.7
Provides habitat for birds and wildlife	1.2	7.2	91.2	0.5	2.9

Table 6-B. Perceived Benefits of City Trees (Q5), Comparing Responses by Region

Possible Benefits of City Trees	Percent Responding "Major Benefit"				Chi-squared Probability
	Total Sample	North Nanaimo	Central Nanaimo	South Nanaimo	
Cools home in summer	56.2	53.9	60.2	59.9	.40
Improves appearance of property	76.6	77.9	69.4	80.1	.05*
Improves appearance of neighbourhood	82.5	83.9	78.1	85.5	.49
Provides a sound barrier	66.0	65.9	69.5	64.9	.59
Improves appearance of commercial areas	70.0	71.5	69.7	68.8	.89
Improves property values	53.8	54.2	51.6	54.5	.20
Reduces flooding from rain	68.0	70.8	66.7	64.6	.41
Reduces erosion	77.9	80.7	76.3	74.9	.18
Provides nutrients to soils	62.5	62.2	59.4	66.2	.64
Removes carbon from atmosphere	81.7	83.8	79.7	79.7	.77
Provides habitat for birds and wildlife	91.2	93.0	88.3	90.6	.02*

Chi squared results indicate statistically significant differences between regions of Nanaimo regarding:

- Improves appearance of property (significance = .05). Lower in central Nanaimo.
- Provides habitat for birds and wildlife (significance = .02). Lower in central Nanaimo.

No significant difference between regions regarding other possible benefits (significance values reported in final column on right all greater than .05)

Table 7-A. Perceived Concerns About City Trees (Q7)

Possible Concerns About City Trees	Response (%)				Mean
	Not a Concern 1	Minor Concern 2	Major Concern 3	Not Sure 0	
Blocks views	32.0	42.1	25.0	0.9	1.9
Damage from falling branches	13.9	50.7	35.1	0.4	2.2
Effort to clean branches & leaves	29.0	51.2	19.1	0.7	1.9
Effort to water	46.4	42.9	7.4	3.4	1.5
Effort to remove leaves from gutters	26.1	48.6	24.8	0.6	2.0
Risk of forest fire	32.8	44.0	22.2	1.1	1.9
Makes yard too dark	43.0	42.4	13.9	0.8	1.7
Causes moss to grow on roofs	27.2	45.4	25.7	1.7	1.9

Table 7-B. Perceived Concerns About City Trees (Q7), Comparing Responses by Region

Possible Concerns About City Trees	Percent Responding "Major Concern"				Chi-squared Probability
	Total Sample	North Nanaimo	Central Nanaimo	South Nanaimo	
Blocks views	25.0	26.6	27.8	20.8	.21
Damage from falling branches	35.1	39.8	36.4	26.0	.01
Effort to clean branches & leaves	19.1	19.6	22.6	16.4	.09
Effort to water	7.4	7.4	8.5	6.9	.27
Effort to remove leaves from gutters	24.8	25.1	31.6	20.5	.09
Risk of forest fire	22.2	25.0	21.8	17.7	.15
Makes yard too dark	13.9	15.8	15.0	9.4	.33
Causes moss to grow on roofs	25.7	26.0	31.9	21.7	.09

Chi squared results indicate statistically significant differences between regions of Nanaimo regarding:

- Damage from falling branches (significance = .01). Lower in south Nanaimo.

No significant difference between regions regarding other possible concerns (significance values reported in final column on right, all greater than .05)

Table 8-A. Perceived Importance of City Trees (Q9)

Importance of City Trees	Response (%)				Mean
	Not at all Important 1	Somewhat Important 2	Very Important 3	Not Sure 0	
Trees in parks	1.2	7.6	91.1	0.1	2.9
Trees in your yard	8.4	32.4	59.1	0.2	2.5
Trees on city property in front of homes	30.5	34.0	32.7	2.7	1.9
Trees at your place of work	29.0	29.3	35.5	6.1	1.8
Trees on other city streets	7.3	37.5	53.4	1.8	2.4

Table 8-B. Perceived Importance of City Trees (Q9). Comparing Responses by Region

Importance of City Trees	Percent Responding "Very Important"				Chi squared Significance
	Total Sample	North Nanaimo	Central Nanaimo	North Nanaimo	
Trees in parks	91.1	93.2	88.9	89.9	.20
Trees in your yard	59.1	58.2	59.7	61.4	.74
Trees on city property in front of homes	32.7	31.8	30.1	38.1	.59
Trees at your place of work	35.5	36.6	37.3	38.2	.45
Trees on other city streets	53.4	51.6	58.3	54.4	.37

Chi squared results indicate no statistically significant differences between regions of Nanaimo regarding any category (significance values reported in final column on right, all greater than .05).

Table 9-A. Managing City Trees in Nanaimo (Q10)

Types of Programs Provided by City of Nanaimo	Response (%)				Mean
	Low Priority 1	Medium Priority 2	High Priority 3	Not Sure 0	
Ensure some trees are retained in new developments	5.1	19.2	74.4	1.2	2.6
Provide hazard tree assessment on private property	16.7	33.3	45.8	4.2	2.2
Provide hazard tree assessment on city property	5.1	26.6	65.6	2.8	2.5
Ensure compliance with tree removal bylaws	10.6	26.2	58.8	4.4	2.4
Protect significant heritage trees	7.7	22.5	67.0	2.9	2.5
Provide consultation on street tree issues	11.8	38.8	44.6	4.8	2.2
Coordinate selection & location of city trees	10.2	38.1	46.8	4.9	2.2
Encourage people to donate trees	19.0	38.9	37.2	4.9	2.1

Table 9-B. Managing City Trees in Nanaimo (Q10); Comparing Responses by Region

Types of Programs Provided by City of Nanaimo	Percent Responding "High Priority"				Chi squared Significance
	Total Sample	North Nanaimo	Central Nanaimo	South Nanaimo	
Ensure some trees are retained in new developments	74.4	77.9	70.3	73.8	.05
Provide hazard tree assessment on private property	45.8	46.4	48.1	45.6	.51
Provide hazard tree assessment on city property	65.6	66.7	68.6	64.1	.19
Ensure compliance with tree removal bylaws	58.8	61.6	55.1	58.8	.48
Protect significant heritage trees	67.0	66.3	68.4	70.1	.83
Provide consultation on street tree issues	44.6	44.5	49.7	44.2	.58
Coordinate selection & location of city trees	46.8	46.8	50.5	45.8	.61
Encourage people to donate trees	37.2	36.4	42.0	37.1	.75

Chi squared results indicate statistically significant differences between regions of Nanaimo regarding:

- Ensure some trees are retained in new developments (significance = .05). Higher in north Nanaimo.

No significant difference between regions regarding other types of urban forest programs (significance values reported in final column on right, all greater than .05)

Table 10. Desire to be Involved In Selection and Location of Trees (Q11)

Response	Response By Region			
	Total Sample	North Nanaimo	Central Nanaimo	South Nanaimo
Yes	30.5	28.4	37.2	31.9
No	44.3	45.9	40.2	45.6
Not sure	25.3	25.7	22.4	22.6

Chi-squared significance = .23, so no significant differences in response by region of city.

APPENDIX B.

Representative selection of the Responses to Open Ended Questions

Approximately one third of the responses are shown here.

Table 11. Other Possible Benefits (Q6)

<i>Privacy</i>
Affords privacy, reduces energy consumption: more trees, less lawn, less lawn mowing. Improves view: I don't have to look at the new homes being built around my property.
Block view from neighbours.
creates privacy
I would prefer to live where there are trees it makes properties more private
improved privacy
Possibly privacy for some.
Privacy
Privacy & trees help keep us from being encased in a concrete jungle. Places for children to play
Privacy- neighbours.
privacy, area to play
Privacy/visual barrier.
provides privacy from neighbours
provides privacy from neighbours, city streets
Provides Privacy.
Provides privacy; trees help us develop a personal spirituality- a sense of being part of the greater whole- create an inner peace.
small city lots- provides some privacy
They can act as a privacy shield, and trees make a neighbourhood look more appealing and blend in with the natural environment.
Trees also provide privacy between neighbours. We provide habitat for birds. I would like to see cats controlled like dogs to stop them from killing birds under our trees.
A very calming aspect to our home; provides significant privacy; a great wind break.
<i>Visual</i>
Aesthetic enjoyment
Aesthetic Generally soften a landscape visually
An attractive city will encourage people to relocate and visit here.
Emphasis on beautification of Nanaimo.
give added beauty, greenery
Hides unsightly developments
I love trees we should not cut any trees down, last ting to do. Trees are beautiful and make the city of Nanaimo look very lovely
I protect neighbourhoods with mature trees & could not imagine living in a development where all old trees are cut down.
Just nice to see nature around us
Makes for a better vacation place, adding to the beauty of the city.
not when they grow over your ocean view
they add good looks and ambiance by having trees around
Trees lush with growth reflects the nature of Nanaimo - This is a rainforest so let's look like one.
Trees make our city beautiful, good for breathing too!
Trees very well located and properly maintained add greatly to the overall appearance of subdivision. There are not enough trees planted in the new subdivisions, they are clear-cut, there should be requirements that certain number of trees are replanted by developers.

When a tree is well maintained, it's as attractive as any flower.
<i>Health</i>
Allows recharge to ground water provide habitat to mosses ect.
Beneficial to the environment and to the cleanliness of Nanaimo's air.
duality of life for all of us
fun to put lights on
Give off oxygen
gives us a sense of nature back to us
Gives you a reason to smile.
Improve a persons well being!
Improves our morale/mood. Enhances our spiritual life.
Makes me feel good to see trees.
provides shade on a sunny day
provides very good and healthy water
reduces sunburn when gardening in shade
Shade during summer.
Summer shade
Trees give us a calming feeling. Reduces the stress effects a city life can bring.
Visually trees are calming & contribute to emotional well being - by deflecting the impact of the concrete urban sprawl.
Shade for people in summer, children can play in/on them (forts, swings)
<i>Children</i>
place for kids to play
provide play places for children
Helps people, especially children, connect to nature.
a place for kids to play (forts, swings)
<i>Wildlife</i>
Attracting wild life to our home.
Benefits the large population of deer & other wildlife. Also privacy to home owners.
Habitat are having a harder & harder time finding a space to live as trees are removed fro the extensive development for
Provides food for wildlife as well as people. Don't take out all the blackberries.
<i>Development</i>
Too many trees and their habitat have been removed for housing developments
<i>Financial</i>
I love trees but because I am on disability, I need my small funding to survive myself. BC is a tree province; take that away and we no longer stand out.
Provides employment, gardening, tress services ect.
<i>Firewood</i>
In the end they could provide firewood to some residents.
source of firewood
<i>Food</i>
Fruit trees - privacy
provide a harvest of fruit in season

wind barrier/fruit trees/ food
<i>Future</i>
I believe trees whether rural or urban are vital for today & for future generations. Human beings must coexist with our ecosystem. In doing so inspiration understanding and enjoyment of nature will continue to exist on our globe.
<i>Noise Reduction</i>
Although the parkway falls under MOT control, the city and the province might consider planting more sound absorbing trees along the parkway. The sound from vehicles travels a long way
Don't minimize sound muting. This area has become incredibly loud with buses, loud mufflers, trucks, speeding vehicles.
<i>Property Value</i>
Increases property value. Keeps everything green.
<i>Wind Reduction</i>
lessens wind in certain situations
Protects nearby trees from strong winds.
provides a windbreak -shade
Provides habitat for other plants (shade tolerant species). Can reduce landscaping capital. Properly placed wind firm trees around homes block wind (reduce heating cost, more comfortable)
Provides shelter from wind.
reduce wind damage
Wind Brake
<i>Other</i>
Helps cool commercial areas too- trees should be planted in more parking lots.
Compost from trees
I would think concerns will vary from property to property. Location and exposure determine benefits and concerns.
Median trees keep drivers focused on their own lane but tree cover can be enough to block view of oncoming traffic
Maintain species.
Not killing unnecessarily.
Removal of dead & dangerous branches
Smells nice
Thanks for trying to keep Nanaimo beautiful.
Trees are good around living area, but do not like tall tree if in storm they fall it damages the property.
Without trees, man cannot breathe, without trees man will not survive. Before we allow anyone remove a tree because he or she wants to improve or create a "view" we should remember that every tree, every living natural entity, serves a purpose, a purpose which is bigger, more complex, more inexplicable, than man can even hope to comprehend. At our peril we remove trees for someone's "view."

Table 12. Other Possible Concerns (Q8)

<i>Hydro and Electrical damage</i>
Power outages.
Hanging over Hydro lines
Causing power outages.

Power outages often occur when stormy weather causes trees to fall on power lines; the need to monitor trees/power lines.
Possible power outages - lets put the power lines under ground & save the trees
Hydro outage from falling branches.
Should be trimmed or removed near power lines
Fallen trees & branches causing power outages.
Damage to driveways etc as tree roots mature. Damage to power lines & similar services.
When trees get to close to electric lines they should be trimmed by BC Hydro
Hydro lines get caught up.
Risk of root incision of water drainage systems
Interference with hydro lines, blocking light from City light posts
If any trees are close to BC Hydro line they should be topped and trimmed
<i>Interference to foundations, sidewalks and driveways</i>
Some trees can cause damage to services and crack driveways by their root systems
Uplifting of sidewalks from tree roots. People planting fast growing, tall trees like Leyland cypress & poplar on small city lots
Structure of bldg compromised when planted to close to foundations.
<i>Damage to drains and pipes</i>
Roots causing plugged perimeter drains.
Clogging drains.
Root system can block drainage pipes; sewer, run off, underground services-new building sites seem to demand all services underground.
Roots in pipes and drains
Root damage to underground pipes is a major concern. Residents dependent on solar E.
<i>Visibility Issues</i>
Blocking viewing of traffic at some corners.
Blocking street signs & ensuring good visibility when driving, etc. Major!
wind damage to property
Trees near corner intersections that block view of oncoming traffic (i.e.; Left turn Oliver & Rutherford). One has to pull out over crosswalk to see the traffic.
Trees growing too close to corners etc, curbs where they block your view of oncoming traffic are of major concern
Blocking visibility from the roads and curb sides. Safety concerns.
Trees in the middle of roadways on traffic islands. Uplands by Longwood block views when trying to get in & out.
Trees blocking a clear view at intersections. A safety issue for traffic.
Blocking visibility - driveways and intersections. Root damage to sidewalks, paths and driveways
Obstructing traffic views for oncoming traffic around corners, harbouring diseases transmitted to private
Blocking signs that indicate school zones, eg. Sign on N-E corner of McGirr/ Waldbank intersection
With respect to A-blocking views; it's a concern when people leave trees and shrubs unpruned and block clear views of traffic thus possible causing accidents.
Foliage that obscures traffic signs on the sides of the road.
Poorly trimmed trees blocking sidewalks growth overhanging can be dangerous for visually impaired.
Willow tree on corner Ashler & Kerr Blocking view at inter sec. Also shrub tree at corner of Doric & 1st
<i>Development Projects</i>
To often trees are left after clearing. Developers are left to clean up the mess. We need a better method of what is to stay & what must be clear cut.
Wholesale cutting of trees for development. i.e. Hammond By Rd, Ridge north of Laguna, etc.
Huge loss of trees due to housing construction.

I am concerned about damage caused to mature trees by topping them to improve views. I am concerned about removal of trees by developers; trees need more & better protection.
Too many trees removed by developers. Enact tougher laws against indiscriminate removal.
We are very concerned when a beautiful tree lot is cut to build homes - there could be more restrictions on the cutting & building.
I have trouble finding out what the bylaws are regarding trees on other peoples property blocking my view. There doesn't seem to be a clear policy on this.
Trees/views need to be addressed. Development standards make tree retention almost impossible.
<i>Falling branches increase danger and property damage</i>
Damage to homes and other structures & power lines in a wind storm.
safety concern
Provide hazard tree assessment of trees on private & city property.
It would be nice to have long standing trees limbed to ensure safety of homes & improve view.
Liability due to trees on our property. Potential damage to adjacent properties. Conflict between roots & drainage piping.
Damage the house if falls in a heavy wind.
Large cedar/maple trees behind property; deer eroding steep bank abutting major thru-traffic streets. Concerned if they fall will damage/destroy portion of house & contents
The effort to top/prune dead trees. To prevent toppling in winds/heavy snow and even dry weather.
Some of the large trees should be removed from house lots. Too big and dangerous
Trees should be pruned to a maximum height
It's more the fact that if trees are maintained a lot of these concerns wouldn't be there i.e. branches, leaves and forest fire
<i>Financial Concerns</i>
I think more people would be inclined to plant trees if the cost of water goes down a lot. I know I would.
Worried about growing tax burden to look after trees.
Difficulty & cost of disposing of fallen branches & leaves.
<i>Risk of Fire</i>
If Newcastle catches fire we will have an ugly city. What is the plan if a fire starts?
<i>Shade leads to increased moss growth on roof and grass</i>
moss can be natural means Falling leaves/branches can be maintained by Homeowners
The lack of sunlight during winter months if possible plant deciduous trees on southerly exposures.
When you have a lot of trees which makes the yard dark which makes the moss grow in the lawn
not enough sun get through
<i>Insects and Disease</i>
Large number of Fir trees on neighbouring properties does create big problems of moss growing on roofs & endless problems of bugs & debris.
Trees suffering from severe root rot.
blight or infestation
Insects.
<i>Other Comments</i>
Topped trees that are then left unattended. This leads to split trunks which are then more likely to fall and damage property.
The tree is leaning. No branches below. Someone peeled bark off trunk.
When underbrush not removed - a haven for misbehaviour. Trimmed trees a solution to most major concerns. I wish city would collect our leaves from ditches.
We are not located near large trees but people who are/ would be concerned with the entire list.

Species selection should not be left to homeowners.
Like Victoria, plant the right trees that are strong and need little care
I would like 2 trees on city property - at the front of my house to come down. To allow me more ease to enter my property in icy weather....etc
Proper species selection can reduce or eliminate any of the above concerns.
Ban on yard burning makes getting rid of fallen branches & trimmings. Expensive & requires use of polluting gas engines to haul to dump or chip.
Supply a pick up of branches & leaves for composting 2x a year.
Trees live for hundreds of years with few complaints. We should treasure them.
You must be aware to plant trees to not obstruct or block door & windows for security reasons.
Trees of any kind are beautiful & make Nanaimo beautiful. It's a shame we clear-cut every tree to put in new subdivisions.
Some trees prevent other plants from growing. Trees can obscure views which can be detrimental to safety & security
We feel the city parks dept. does a very good job.
Trees provide oxygen. Humans need oxygen to survive. Trees add beauty to any landscape. Please leave nature alone
Fall trees in neighbouring gardens create fear of falling across house.
Neighbours' trees are a problem because they leave a mess.
Trees are most valuable and their merits out weigh vastly any detrimental affect. I am the owner of a great heritage tree that is registered under the Heritage Tree Act of B.C.
Why doesn't the City trim their trees and cut grass on their property?
City trees like parks. Highway landscaping is a big source of work for doubtfully useful City workers. We can't afford them.
The City and property owners let trees get too large. Property owners should be able to remove any trees on their property without having to get permission from the city to do so.
More attention should be done by the City to put in storm drains and get rid of open ditches.
Needs to prune trees on city & private property. Large trees may provide unwanted hiding places - security risk.

Table 13. Other Possible Tree Services (Q.12)

<i>Hydro and Electrical damage</i>
Private & City trees should be not allowed to cause a problem for BC Hydro users
Closer monitoring with regard to power outages due to falling limbs. Assessment of possible damage because of falling trees.
Hydro lines & cables.
Our power source is lost each year due to falling trees & hydro lines.
Yes, trees on city property should be controlled under utility lines.
<i>Planting suggestions</i>
Plant more
I have noticed many new properties where no trees have been replaced. I believe properties should be required to replace or plant at least 3-4 trees.
I would like to see the City plant more trees in new subdivisions, (tree boulevard trees) as often residents do not plant man trees in new areas.
Tree section or links to tree issues on city websites.
More planting of trees and other plants
City should develop a tree nursery to supply to new developments, parks & Streets.
Planting of ornamental trees where ever it is suitable.
I would like to see more trees. We need every street to be more like Victoria.

I would like to see the City plant more trees in new subdivisions, (tree boulevard trees) as often residents do not plant many trees in new areas.
More planting of trees and other plants
Reforestation/replanting.
Plant only strong branch trees on side of streets for low risk of branch breakage.
The type of trees chosen for city property is very important. They should be low maintenance varieties in order to keep the costs within reason while enhancing the high value of trees in our environment.
Plant more.
Indigenous trees for surviving indigenous animals, birds, & insects. Demands less tree service.
<i>Pruning suggestions</i>
Limbing of trees in green belt area
Regular tree pruning, control and removal of City trees.
Trimming of trees on Private property which could damage our home.
Topping trees that block city views not cutting them down.
Pruning advice - workshops, articles.
Annual pick up of dead fall limbs & cuttings
Topping of very tall trees.
Removing pruning. Create a bylaw – re: tent caterpillars and removal on private property.
Provide regular topping, pruning, removal of trees that may topple or create danger.
Tree thinning for view corridors.
Fallers to cut them down.
Regular tree pruning, control and removal of City trees.
View restrictions & occasional Topping & thinning to maintain views
Hedge height & Mgmt trees used to stop erosion.
Compulsory trimming/pruning to protect views or reduce unwanted overgrowth on private property paid for by the beneficiary
Trees should be pruned & kept healthy before they become dangerous hazards.
Tree growth management where trees have overgrown their place.
<i>Falling branches increase danger and property damage</i>
Provide regular topping, pruning, removal of trees that may topple or create danger.
City should be prepared to cover the cost of removal of trees which are creating a hazard to neighbours.
Removing pruning. Create a bylaw – re: tent caterpillars and removal on private property.
Any trees that are a hazard on private or City property should be checked.
Size.
Trees that cause issues to a tree on a neighbour's property.
There may not be space for street trees in older, well established areas. Too much enthusiasm for removing unsafe trees in the past. I.e. Bowen Park
Topping of dangerous trees & rotten ones regardless of which park they are in.
Provide city assistance for private home owners or home purchasers to have hazardous trees removed from their property if necessary. Maybe also a problem to a neighbour or danger.
Assessing tree hazards near homes of city parks. Brechin City park has many, trees are dead, very tall & branches fall on homes.
Dead trees or fallen trees on City Property should be cut down & removed or trees that are diseased and could fall or topple onto a house etc.
<i>Financial Concerns</i>
City should be prepared to cover the cost of removal of trees which are creating a hazard to neighbours.
Since trees require pruning, the City should provide, within current tax levels, twice a year curb side chipping or pick up.
Discount given for tree trimming for private yards, or take trees that are no longer wanted and replant instead of cutting down

Anything to keep cost down, donations, clubs, volunteers, property owners splitting costs.
Create a program in which suitable trees could be purchased at a reduced price instead of the high prices at nurseries or residents could adopt a tree.
City provides free trees to property owners. This program ran in Nanaimo about 12-15 yrs ago.
Discount given for tree trimming for private yards, or take trees that are no longer wanted and replant instead of cutting down
<i>Education</i>
Letting the public know about donating trees.
Information & educating the public on ho to recognize & treat arbutus trees affected with blight. Protecting remaining arbutus trees from dev. Cutting or root disturbance which also weakens them.
Advice on Dangerous trees
Notification of tree disease if found in City and measures suggested to culprit.
Providing clear maps of buried hydro, Telus, gas, and sewer lines for anyone who wants to plant.
Consultation on tree care.
Pruning advice - workshops, articles.
More public awareness of the value of our trees, especially in schools.
Information & educating the public on ho to recognize & treat arbutus trees affected with blight. Protecting remaining arbutus trees from dev. Cutting or root disturbance which also weakens them.
<i>Leaf/ branch clean up</i>
Leaf clean up service
More readily available and affordable composting drop-off sites for tree trimmings and leaf matter during the fall and spring.
Semi annual collection @ curb side
Stump removal.
Have a leaf collection pickup each fall. The City can use them as compost for city garden beds.
Curb side pick-up
Once or twice a year have the opportunity to mulch tree branches through city service.
Curb-side pick-up of tree branches and pruned branches on a periodic basis from private property 3-4 times/year; this would greatly promote health and beauty of the city's private property trees.
Mulching service to benefit park/forest walkways.
Provide drop off areas for tree branches and pruning, etc.
Annual pick up of dead fall limbs & cuttings
Since trees require pruning, the City should provide, within current tax levels, twice a year curb side chipping or pick-up.
More readily available and affordable composting drop-off sites for tree trimmings and leaf matter during the fall and spring.
<i>Phone line</i>
Provide a department in City Hall where a concerned tax-paying citizen can phone to complain about a neighbour's trees that are blocking views and sun and maybe creating a potential risk (high wind storms ect.) especially where a neighbour is unapproachable and uncooperative.
Only a complain department to deal with over height tree complaints.
<i>Other</i>
Please consider not cutting down everything in Nanaimo to aid your "high-density" campaign
Maintain sight lines to the ocean and mountains.
I would like to see developers prohibited from cutting down whole forests, particularly on sandy hills. There must be a balance between need for housing development and leaving trees in the same area.
Residents and City should be responsible for trees on City And private properties. They should be held accountable for the proper upkeep of them and dangerous unkept should be removed by a by-law.
Yes. Ensure Arborist is involved when removing trees from private residences. For example, a few years ago – I had very old established trees removed from my property for water line issues the City outsourced a tree

falling company who ended up killing another of my established trees. Very disappointing.
I have noticed many new properties where no trees have been replaced. I believe properties should be required to replace or plant at least 3-4 trees.
City looking after the trees they have planted.
Identification of old possible heritage trees including and especially fruit trees in the City.
Where ocean views etc are concerned maintain property control over height of trees & plants
Assist with annual maintenance of city owned trees.
Tree section or links to tree issues on city websites.
Small park Benches under trees so citizens & visitors can enjoy a break. Not big enough to sleep on.
Get rid of large trees lining island highway behind condo developments, hazards, moss growth, etc.
I would like to see a tree planting program for all the babies born in Nanaimo. Parents or loved ones to plant the tree & have it catalogued.
Monitor/Rate Fire hazard of properties.
City should develop a tree nursery to supply to new developments, parks & Streets.
Disease management & consultation.
What purpose is served by retaining a few separated trees on lots intended for housing where buyers are then required to remove to build their houses on?
<i>Disease control.</i>
Diseased trees being uncared for and the "blight" spreads. These should be removed.
We live on a cul-de-sac with limited city space for trees. Most neighbours have mature landscaping.
Cut back trees which obscure street signs.
Consult First Nations people.
Not allowing developers to clear cut potential sub divisions.
Note other comments - see sheet
Fruit tree spraying by the City for domestic trees as well as city property. Encourage collecting fruit for distributing or swapping, etc. etc.
Needs to be effective laws in place to protect owners rights to remove or plant trees to improve the enjoyment and usefulness of the property but there needs to be some reasonable recourse in disputes.
Awareness - when your neighbour wants to cut down many trees to gain light, it would be nice to know they are removing only their trees!
no comment
We want to emphasize the importance of retaining trees in city developments (residential otherwise)
Disease control.
Removal of trees on private land dangerous to blocking of views or on-coming traffic
I think private property after development should be the owners concern on what trees should stay or be removed.
If the tree is on my property I think I should be responsible for it.

Table 14. Other Comments

<i>development</i>
Concerned about over-development & impact on environment & habitat of tree removal. Too much removal.
Do not allow builders to clear-cut- contributing to the "uglification" of Nanaimo!
I feel the most important thing to do right now during the construction Boom is to monitor new subdivisions.
I realize development can't be stopped but to remove every tree from a subdivision is not smart. Even more so on a slope. It also creates areas for wind gusts to pick up, and remaining trees are at risk, make these <u>greedy</u> developers leave a few trees.
Other cities I lived in plant trees on the road r/w in all new Subdivisions once the lots have been built on.

please do not send again I don not need any trees thank you
The more trees in Urban Areas the better. Developments such as those in North Nanaimo should no be allowed to strip log areas in order to build houses, some trees should be retained, these supply relief from the sun and wind.
Too many new developments lack trees and any green space. There is no room for them either.
<i>education</i>
A good neighbour awareness program. Departure Bay area needs some trees for shade & beauty.
A regular column in the local newspaper about core & maintenance of trees would be good.
<i>environment</i>
Nanaimo has a great responsibility to our environment. Trees do this! Keep planting! I would be happy to donate to tree planting.
Serious concerns regarding clear cutting/demolishing mountain behind property in the event of extreme rainfall. One envisions a slide of epic proportions. Who is responsible?
<i>financial</i>
Trees may impede a view as they grow older but I feel their benefits outweigh the view. Now if only people's taxes would reflect the loss of view they may be more sympathetic to the trees. But having said that, when people buy a house and there are trees in the surrounding area, they must know that trees do grow and it is usually up!
With the current concerns of "global warming" cities and communities should be encouraged to plant/preserve the urban forest. This could be accomplished though government and corporate funding and education.
<i>food</i>
I would love to see areas where we could have fruit planted for use in community food share programs. Parks could have fruit trees where neighbours could pick the fruit and volunteers help with the city to manage the tree gardens. Schools could have fruit to provide the children with fresh fruit in the growing seasons.
<i>hazardous trees</i>
Some of the trees in my living are a hazard on stormy days.
I feel trees definitely add to quality of life, the only concern is if they are unsafe because of wind hazard, traffic, view, blockage, ect.
The heights of many trees in Nanaimo have reached a hazardous level. Trees that are above the height of your home have no value to cooling your home or aesthetics. Every year someone in the forest is hurt of fatally wounded, the risk of this happening on an urban area from similar trees is much higher.
<i>hydro and electric</i>
Do not think trees should be allowed to grow under power lines and have to be trimmed forever by the city. (On city property - boulevards etc.)
<i>maintenance</i>
City should provide maintenance.
Hang onto what we have and look after them, rather than strip area for re-development and then replant!
keep trees trimmed
Trees are immensely important trees planted maintained by the City become yet another excuse for incredible expense and corruption
persons property with trees should provide clean up of trees, branches and leaves on public property
<i>personal threat</i>
I love trees lined boulevards but in this day & age where even shopping centres are not safe from unseen attacks & innocent people continually prey upon, caution & wisdom need to be the primary concern for planning tree plantings.

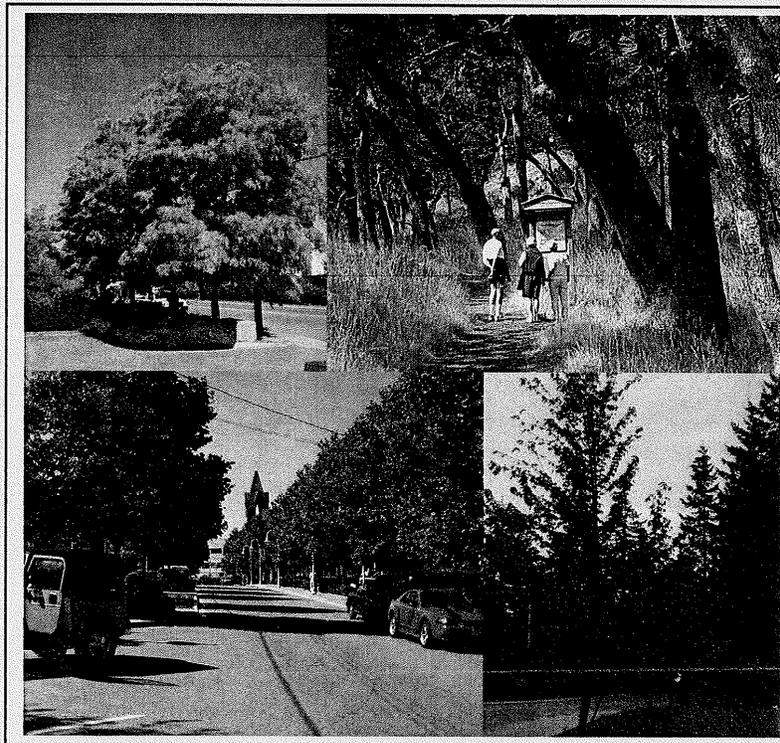
<i>planting</i>
I strongly support planting trees & landscaping the city.
More trees should be planted along meridians etc. let's get this city greener.
Not nearly enough median trees in streets/residential neighbourhoods- need more decorative blooming trees on city streets (cherries, plums etc) for seasonal delight
Planting trees that have foliage year round.
Please plant more Japanese cherry trees on streets they are soooo pretty!
Replace interesting species of trees with similar ones set back if possible when trees- such as the 100 year old black walnut had to be removed for widening the down-town to the bypass connection along third street.
There should be several species of trees spread throughout the city so that if possible they don't have devastating impacts on the tree populations.
Would like to see more street trees.
rooftop trees in the city center, on malls, and industrial areas
<i>policy</i>
I do not know if there is some law for the following 1) the owner of a dog must pickup the excitement of their animal in the public area. 2) an owner that blocks the view of the ocean of their surrounding neighbours must prune, clean and culture trees at the level of the roof of their house- many thanks. If there is no law for these please work to have some it is very important for the peace of the neighbourhood. Many thanks for these considerations.
NEED a tree bylaw with a focus on SAFETY (huge trees on adjacent properties), view corridors, (neighbours, lower properties) and selection of appropriate species. Tricky, balancing private property rights, & different people's opinions & perspectives. The tree that provides one person privacy blocks another person's view.
Please zone green spaces along ridges for both beauty and to reduce noise from highways.
Requirement, if not already addressed, should be put in place limiting the number of trees a developer can remove when developing a sub-division. Too many times they have been allowed to destroy all the trees.
We need a bylaw to restrict the height of trees in CILAIRE and other places. They should not be higher than the roof of the house.
<i>preserve</i>
Heritage trees should include "split trees" which are important to the First Nations.
People generally move to an area because of the beauty- trees, greenery, and general "feel" of the area. Nanaimo needs to protect it's "green spaces". We need them as well as the animals and other living creatures living there.
<i>property damage</i>
I am concerned about trees on private property that have limbs that break off and fall on the neighbour's property and cause damage.
<i>removal</i>
I have been discouraged be clearing of trees for development, particularly in the North End of Nanaimo.
I was somewhat disturbed to see a seemingly healthy arbutus tree cut down by city staff during the past summer. I would have liked to have had information in this before it happened as it was a feature of our street and didn't seem to be affected by disease.
I was very sorry to see all the cherry blossom trees removed from the south end of Nicol.
When someone's trees are to be "bulldozed" it could be beneficial to offer them to residents for transplant versus simply filling the landfill.
<i>retain</i>
It is important that we make sure to ensure that trees remain on important fixtures in Nanaimo area. Green space is very limited.

<i>view</i>
Some of my trees block the view of neighbours, and neighbours trees block my view, it's life.
trees that block views should be dealt with consideration for all concerned
<i>visibility</i>
large old trees over the road provide incredible charm to city streets
Trees should be properly and regularly pruned so they don't impede driver's views at corners or obstruct street signs and driveways for homeowners or cars going past driveways.
<i>visual</i>
A city without trees looks cold & uninviting. Trees make a city look alive & vibrant. Help reduce erosion & pollution.
I do think trees on the streets are somewhat important they really pull the look of the city together and make it look cleaner. Greener=cleaner.
I think that it is important to plant/ keep as many trees as possible - especially around commercial developments & road development- trees in parking lots & road medians do a lot of beautify & also reduce the amount of exposed asphalt which heats up so much in the summer. Keeping trees where possible, and planting them, should be part of residential development too.
trees on streets add flavour and colour to the areas
We purchased our property because of the numerous trees and adjacent greens space- I feel this is a huge asset to our investment.
<i>wildlife</i>
Trees are an important part of Nanaimo; the trees provide beauty, a safe home for birds, and shade for us. Trees are great.
Trees are important for the animals. Perhaps a park could be set up for the animals
<i>other</i>
I believe this is an important issue- thank you for addressing it!
We live on a beautiful island; we should keep it lush and green. We should not try to turn it into a concrete jungle, after all this is beautiful BC- is it not?
keeping the island as green as possible is important
Nanaimo should be proud of the amount of trees it has, the variety and the values to the city and its population
Should have similar studies by the city on variety of issues
Surveys are very important to obtain the city population input especially on major issues which could affect a majority of the population.

Appendix C
Survey Questionnaire



City Trees and You



**A Public Opinion Survey
Regarding the Management of
Trees in Public Places**

January, 2008

ABOUT CITY TREES

The purpose of this questionnaire is to determine public opinions about city trees (trees growing within city limits), and how they are managed. The results will be used to help the City of Nanaimo improve its level of service in the future.

- Q.1 First, considering your **place of residence**, about how many trees are within the property?
 _____ Trees on your property
- Q.2 About how many trees are on city property on the street in front of your residence?
 _____ Trees on City property
- Q.3 In the neighbourhood where you live, please indicate if any of the following are located nearby (within a 10 minute walk). Please circle all that apply.
- | | |
|----------------------|---|
| 1. Landscaped garden | 3. Undeveloped forested area (not a park) |
| 2. City Park | 4. Other open space |
- Q.4 Over the period of time you have lived in Nanaimo, would you say the number of trees within the city limits has increased, decreased, or stayed the same. Please circle number.
- | | |
|--------------|--------------------|
| 1. Increased | 3. Stayed the same |
| 2. Decreased | 4. Not sure |

POSSIBLE BENEFITS OF URBAN TREES

Q.5 Retaining city trees within the city provides a number of benefits, but also a number of concerns. Looking first at possible benefits, please indicate if you feel each of the following is a minor benefit, major benefit, or not a benefit. Please circle a number beside each statement.

	NOT a Benefit	MINOR Benefit	MAJOR Benefit	NOT SURE
A. Helps cool homes in summer.....	1	2	3	4
B. Improves the appearance of a property.....	1	2	3	4
C. Improves the appearance of a neighbourhood.....	1	2	3	4
D. Provides a sound barrier.....	1	2	3	4
E. Makes commercial areas more attractive.....	1	2	3	4
F. Improves property values.....	1	2	3	4
G. Reduces flooding from rain.....	1	2	3	4
H. Reduces erosion.....	1	2	3	4
I. Provides nutrients to the soil.....	1	2	3	4
J. Removes carbon from the atmosphere.....	1	2	3	4
K. Provides habitat for birds and other wildlife.....	1	2	3	4

Q.6 Are there any other possible benefits you would like to mention?

POSSIBLE CONCERNS ABOUT CITY TREES

Q.7 Listed below are a number of possible concerns regarding city trees. Please indicate if you feel each of the following is a minor concern, major concern, or not a concern.

	NOT a Concern	MINOR Concern	MAJOR Concern	NOT SURE
A. Blocking views.....	1	2	3	4
B. Damage from falling branches or trees.....	1	2	3	4
C. The effort to clean falling leaves & branches...	1	2	3	4
D. The effort to water.....	1	2	3	4
E. The effort to remove leaves from house gutters	1	2	3	4
F. The risk of forest fire.....	1	2	3	4
G. Making the yard too dark.....	1	2	3	4
H. Causing moss growth on roofs	1	2	3	4

Q.8 Are there any other possible concerns you would like to mention?

Q.9 Please indicate the importance to you of each of the following

	NOT AT ALL Important	SOMEWHAT Important	VERY Important	NOT SURE
A. Trees in parks.....	1	2	3	4
B. Trees in your yard.....	1	2	3	4
C. Trees on city property in front of your home	1	2	3	4
D. Trees at your place of work.....	1	2	3	4
E. Trees on other city streets	1	2	3	4

MANAGING CITY TREES IN NANAIMO

Q.10 Below is a list of tree related programs and services provided by the City of Nanaimo. For each, please indicate if it is a low, medium or high priority.

	LOW Priority	MEDIUM Priority	HIGH Priority	NOT SURE
A. Review development projects to ensure some trees are retained or replanted.....	1	2	3	4
B. Provide hazard tree assessment for city trees on <u>private</u> property	1	2	3	4
C. Provide hazard tree assessment for city trees on <u>city</u> property ...	1	2	3	4
D. Ensure compliance with tree removal bylaws	1	2	3	4
E. Protect significant trees through the Heritage Tree Program.....	1	2	3	4
F. Provide consultation on street tree issues.....	1	2	3	4
G. Coordinate selection and location of city trees.....	1	2	3	4
H. Encourage people to donate trees.....	1	2	3	4

Q.11 Would you like to be involved in the selection and location of street trees in your neighbourhood?
1. Yes 2. No 3. Not Sure

Q.12 Are there any other tree services you think should be considered?

ABOUT YOU

In order to help analyse these results it is helpful to know a few things about you.

Q.13 Which of the following best describes where you live?
1. House 2. Townhouse 3. Apartment
4. Condominium 5. Other

Q.14 Do you rent or own?
Rent Own

Q.15 How many people live in your place of residence?
_____ People

Q.16 About how many years have you lived in your present residence?
_____ Years

Q.17 About how many years have you lived in the greater Nanaimo area?
_____ Years

Q.18 What is your gender?
_____ Male _____ Female

Q.19 Please circle the number best describing your age.
1. 19 - 24 Years 2. 25 - 40 Years 3. 41 - 50 Years
4. 51 - 64 Years 5. 65 Years or older

OTHER COMMENTS

Please use the space below to provide any additional comments about street trees in Nanaimo. If there is not adequate space, please feel free to attach notes.

Thank you for participating in this study. Please insert your completed questionnaire into the pre-addressed and stamped envelope provided, and mail today.