

Survey 2 – Summary Report

The second of the three surveys, *Biodiversity, Water Conservation and Housing*, gave Gabriolans the opportunity to comment on: including the concept of biodiversity in the Official Community Plan; the effectiveness of various biodiversity policy options; the value of implementing actions outlined in the Coastal Douglas-fir Toolkit; and the importance of various measures to protect groundwater. Each question provided space for respondents to make comments in their own words.

While there were six questions in this survey, we have not included a discussion of Question 6 in the findings below. This question asked respondents to suggest particular issues they wanted to have addressed in regard to managing growth. The 63 responses informed the development of Survey 3 questions, which focused on managing growth and housing diversity. The findings from Survey 3 are reported on later in this report.

Background for Survey Two

Background information for the second survey was provided in three documents: *Forest Ecosystems, Protected Land, and Groundwater on Gabriola* (see Appendix 4); *Key Policies on Biodiversity and Freshwater Conservation for Gabriola Island* (Appendix 5); and, *GaLTT Major Conservation Threats and Priorities* (Appendix 6). A glossary of key terms was also provided. In brief:

- **Unique Ecosystems:** Gabriola Island lies within the Coastal Douglas-fir (CDF) Biogeoclimatic Zone, which is the smallest of BC's 16 major ecosystem zones. The ecosystems found within it are rare and highly endangered and include Douglas-fir forests, as well as Garry Oak woodlands, wetlands, estuaries, and other unique communities of plant, animal, and fungi found nowhere else in the world.
- **Conservation Threats:** According to the Gabriola Land and Trails Trust, apart from climate change, most conservation threats on Gabriola result from population growth and related development, which lead to:
 - Tree cutting
 - Stress on ground water
 - Fragmentation of natural habitat
 - Disturbance of sensitive ecosystems and rare species
 - Increase in invasive species.
- **Groundwater Resources:** Gabriola's primary source of water for household consumption and irrigation is groundwater stored in aquifers, which are recharged from rainwater. 57% of rainwater comes in November through February and only 13% in May through August. Gabriola thus has a freshwater storage problem, not a supply problem. While a lot of water is stored in the

ground, accessing it can be difficult. Increased development and climate change will put pressure on Gabriola’s groundwater resources.

- **Current Policy:** Detailed information about current policy related to biodiversity and groundwater protection is in Appendix D of this report. In brief:
 - The term biodiversity is not used in the current Official Community Plan (1997); however, the OCP does state that “This Plan attempts to preserve the unique environment of the Gabriola Planning Area for future generations through its established goals, which speak to the protection of the natural environment and its sensitive ecosystems.”
 - The OCP includes a number of goals, policies and objectives related to the natural environment and its protection, including groundwater resources.
 - There is currently no overarching strategy in the OCP to identify biodiversity and freshwater conservation priorities and ensure that effective objectives and policies are both in place and regulated.
 - Many of the OCP’s policies and regulations use ‘soft’ language like ‘encourage’ rather setting a requirement. Currently, requirements are expressly stated only in regard to environmentally sensitive area designations, marine resource areas, and specific development permit areas.
 - In 2018, the Islands Trust published a toolkit for protecting the Coastal Douglas-fir (CDF) ecosystem. The document includes maps showing areas needing protection along with guidance on a number of regulatory tools that Local Trust Committees can use to help preserve this unique ecosystem. None of the CDF Toolkit recommendations have yet been incorporated into the Gabriola OCP and Land Use Bylaw.
 - The Islands Trust’s *Groundwater Protection Toolkit* provides guidance on various regulatory tools that can be used to protect groundwater resources. Only one of the Groundwater Protection Toolkit recommendations has been incorporated into the Gabriola OCP and Land Use Bylaw so far.

Survey Responses

A total of 340 people responded to this survey, representing 1 response for every 11 Gabriolans over 19 years of age, based on population data from the 2016 Census. This is a slightly lower response rate than for the first survey. Not every respondent answered all questions.

In addition to the quantitative data collected, respondents shared 692 comments.



Question 1: Housing / Property Status

Q1: Please tell us your current housing / property ownership status on Gabriola by choosing the category that applies to your situation (check all that apply)

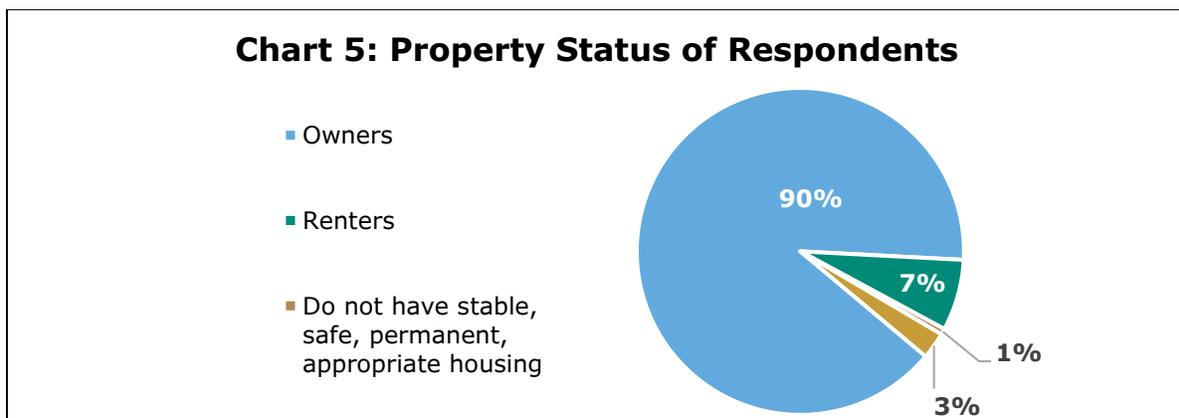
The list of possible responses to this question is the same as for Question 1 in Survey 1.

General Findings

332 respondents provided 340 responses to this question.

| Options | Proportion | Number |
|--|------------|--------|
| I own property and reside here full time | 83% | 281 |
| I own property and reside here part time | 4% | 14 |
| I own property and visit occasionally | 1% | 3 |
| I own vacant property | 1% | 3 |
| I own property which I rent out | 1% | 4 |
| I am a renter and reside here full time | 7% | 23 |
| I am a renter and reside here part time | 0% | 1 |
| I do not have stable, safe, permanent, appropriate housing | 1% | 2 |
| I live elsewhere but I work on Gabriola | 0% | 0 |
| I have treaty rights to unceded land on Gabriola | 0% | 1 |
| I prefer not to answer | 1% | 2 |
| Other (please specify) | 2% | 6 |

As Chart 5 shows, most of the 332 respondents are property owners (90%) with the rest renting (7%) and precariously housed (1%). *Other* includes all other respondents.



It should be noted that respondents were asked to identify all the categories that applied to them. For instance, a property owner could indicate that they owned and lived on the property full-time, and that they owned and rented out a property.

Owners

Of the survey respondents who owned property:

- The majority occupied the property full time (92%)
- 4.5% resided here part-time
- 1% occasionally visit
- 1% owned vacant property
- 1.5% owned property that they rent out.

Renters & Precariously Housed, and Those with Unceded Treaty Rights

Renters, the precariously housed, and those that have unceded treaty rights represented 8.5% of the responses. Of those:

- 88% rent
- 8% do not have stable, safe, permanent, appropriate housing
- 4% indicated they have treaty rights to unceded land on Gabriola.

Qualitative Responses

Five of the six respondents who defined themselves as *Other* identified themselves as renters, and two as long-time Gabriola residents of 20 years or more. They focused on the insecurity of their housing, a situation made worse by the lack of available, affordable rental housing.

- “I am a renter who resides here full time for the past 25 years. My rental is going on the market, so I also consider my family in unstable housing with zero rental availability.”
- “I am a full-time rental resident (for 3 years) and do not have safe, affordable and stable housing.”

Conclusions: Question 1

The majority of responses are from property owners (92%). This is a higher proportion of owners to renters than in the first survey and is higher than the distribution of owners to renters in the 2016 Census.

No effort was made to weight the responses to balance the perspectives between owners and renters; however, each question was evaluated to determine whether there was a statistically significant difference in responses between owners and renters.

Question 2: Inclusion of Biodiversity in the OCP

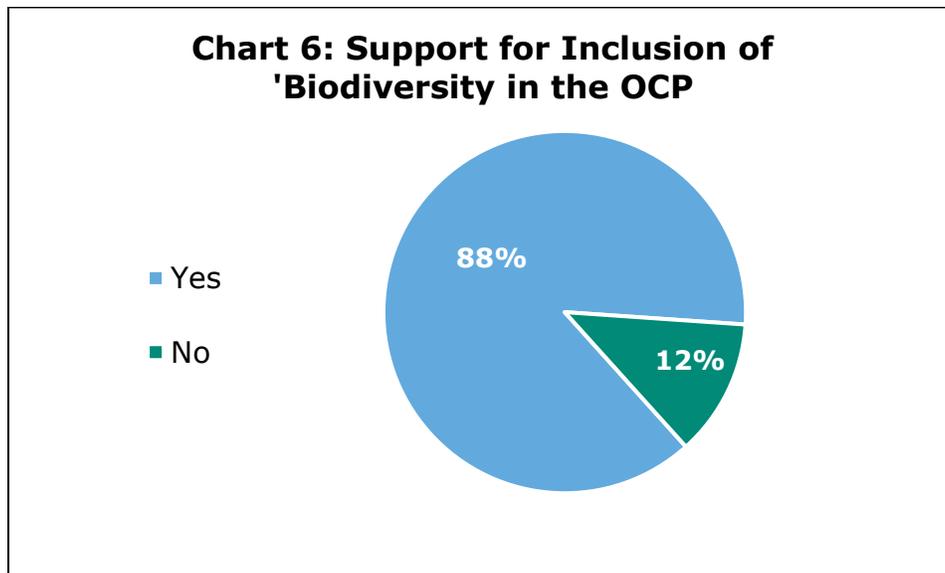
Q2: Should the Local Trust Committee draft new policies to specifically address protection of biodiversity and restoration of the natural environment on the island?

This question was asked to gauge support for more specific policies than the current OCP general statements about “preserving and protecting” Gabriola’s unique natural environment and its sensitive ecosystems.

General Findings

There were 286 responses to this question and 74 comments. 54 people skipped this question (16%).

As Chart 6 below indicates, respondents indicated strong support for the inclusion of policies that explicitly address biodiversity in the Official Community Plan (88%).



Findings by Housing Status

87% of owners support new policies around biodiversity, compared to 100% of renters.

Qualitative Responses

Seventy-four comments were received on this topic.

A majority of the comments are about the sufficiency of the current OCP: 11 feel there is no need to change the current situation, although they are not explicitly opposed to adding 'biodiversity.' Four commenters want to amend 'biodiversity' to 'biocultural diversity' recognizing that human activity is an essential element and in recognition of the need for social justice and fairness. Several stressed the need for an educational component.

Six commenters deemed the current plan inadequate. Of particular concern is the clear-cutting of lots (6) although 3 commenters recognized the difficulties of balancing property rights with forest protection. Seven commenters called for new policies that are clear and have measurable and actionable policies. Two commenters want policy specificity by zone and the protection of farmland. Three commenters want no new development or growth.

The following quotes show the range of these perspectives.

- “Our ecosystem is under pressure from a variety of external forces, including climate change and increased rates of development. The status quo is not adequate to protect it.”
- “The challenge is to extend reasonable regulation over private land to put some limits on the rights to cut trees. Too many lots are being clearcut. Striking a balance between property rights and protection will be hard and legally difficult.”
- “Yes, but biodiversity should not be compartmentalized on its own. A better more inclusive term that considers environment and culture is biocultural diversity, biocultural diversity as a framework better recognizes both nature and culture as interconnected.”

Conclusions: Question 2

The responses to this question show clear support among respondents for incorporating the concept of biodiversity into the Official Community Plan. However, the concept itself needs to be clearly articulated – for instance, delineating the difference between *biodiversity* or *biocultural diversity*, which incorporates the role of human activity.

Question 3: Effectiveness of Biodiversity Policy Options

Q3: Please rate how effective you think the following options would be in protecting biodiversity:

- Encouraging property owners to voluntarily take protective measures
- Setting requirements on a case-by-case basis for each new rezoning application
- Establishing new Development Permit Areas to regulate development and protect biodiversity
- Establishing new regulations for specific conservation objectives (e.g., reducing tree cutting) that would apply to all property owners

Question 3 allows respondents to evaluate the effectiveness of various policy options to protecting biodiversity, ranging from the current ‘soft’ language in the OCP to ‘harder’ approaches such as more specific requirements that would apply to all property owners.

General Findings

There were 297 responses to this question and 234 comments. 43 People skipped this question (13%). As Table 7 shows, respondents rated the effectiveness of each of the policy options depending on the relative effectiveness of the requirements.

| Policy Option | Very Effective | Somewhat Effective | Neither Effective nor Ineffective | Somewhat Ineffective | Very Ineffective | Not Sure |
|--|----------------|--------------------|-----------------------------------|----------------------|------------------|----------|
| Encourage property owners to take protective measures | 6%% | 25% | 13% | 19%% | 35% | 2% |
| Set requirements on a case by case basis for each new rezoning application | 25% | 40% | 8% | 12% | 10% | 5% |
| Establish new Development Permit Areas to regulate development to protect biodiversity | 45% | 36% | 6% | 5% | 4% | 5% |
| Establish new regulations for specific conservation objectives that would apply to all property owners | 50% | 26% | 7% | 4% | 7% | 6% |

When *Very Effective* and *Somewhat Effective* responses are combined, respondents ranked the approaches in the order shown in the table below.

| Table 8: Ranked Combined Effectiveness Ratings | | | |
|--|-----------------------|---------------------------|------------------------|
| Policy Option | Very Effective | Somewhat Effective | Combined Rating |
| Establish new Development Permit Areas to regulate development to protect biodiversity | 45% | 36% | 81% |
| Establish new regulations for specific conservation objectives that would apply to all property owners | 50% | 26% | 76% |
| Set requirements on a case by case basis for each new rezoning application | 25% | 40% | 65% |
| Encourage property owners to take protective measures | 6% | 25% | 31% |

The last (*Encourage Property Owners to Take Proactive Measures*) is clearly seen as the least effective policy tool with 54% of respondents seeing it as either *Very Ineffective* (35%) or *Somewhat Ineffective* (19%).

Findings by Housing Status

Renters are much more likely to see the *Encourage Property Owners to Take Protective Measures* option as ineffective than property owners.

Qualitative Responses

Of the 234 comments received, 20% are aimed at the voluntary option, 28% for the case-by-case option, 20% for the DPA option, and 31% for regulations that would apply to all property owners.

a) Voluntary Compliance

Although a clear majority of quantitative question respondents found relying on voluntary action ineffective, the comments tended to look at the question in a more balanced way. Five comments pointed to the inadequacy of the current situation but another five commented that voluntary action is already being taken. Seven commenters feel property owners needed to have a clear understanding of what measures could be taken, including zone-specific measures, for which educational materials are required. Five commenters pointed to incentivization; five want specific restrictions; and three want enforcement of restrictions and repercussions for non-compliance. The following quotes illustrate some of these ideas.

- “Owners need to know what area their property is in (high concern, etc.) and what protective measures” [are necessary].

- “Voluntary measures unlikely observed by developers and speculators.”
- “Demonstrated to be effective by the donations, bequeaths, and conservation easements we have on the island.”
- “Unless the encouragement has some monetary value most would not pay any attention. Perhaps a tax break for those who work with an eye to specific biodiversity.”

b) Case-by-Case

Two thirds of the respondents feel a case-by-case assessment would be effective, but the comments expressed much less certainty. Eighteen commenters are not against case-by-case assessment specifically, but they see many extenuating factors such as: staff knowledge; increased work for Trust staff; politics; lack of consistency; and, particularly, the influence of money. Seven commenters are concerned about fairness and three anticipated increased litigation or disputation. Five commenters think case-by-case assessment is the process already in place. Ten commenters want to have baseline requirements that would apply in all situations. And six want no development or density increase at all. The following quotes illuminate these points.

- “Case by case may adversely cause litigation.”
- “Depends on too many extenuating factors to be effective: bias or personal views of elected officials at the time, level of knowledge/experience of staff making recommendations, pressure from the public/private sector. Case by case could be effective, but likely would not be over the long term.”
- “Totally depends on baseline requirements. All too often money talks.”
- “Setting different requirements for different applicants may be perceived and may well be unfair.”
- “Although the effectiveness of this has much to do with the personalities involved, some flexibility in rezoning must be available.”
- “This would do nothing to protect or restore land that has already been developed / clear cut. I feel we need to put in place regulations that govern existing properties to the same standards as new developments.”

c) New Development Permit Area

Overall, the comments are supportive of this approach (8); however, some are concerned about over-regulation and counter-productivity and at least one wants more pro-activity with landowners. Three comments pointed to the lack of enforcement of regulations and three want no more development. The following quotes are examples of these viewpoints.

- “Useful because I think our local government can do this anytime - not just in conjunction with a rezoning application.”
- “This could be counter-productive by creating resistance and needing a lot of resources to police.”

d) New Regulations Applied to All Property Owners

This approach is strongly supported in the quantitative responses and garnered the most comments. Almost all the comments are directed to tree cutting only. Fifteen commenters are fully in agreement with implementing such a policy. Five want clear directives. Nine commenters feel such a policy would meet with irritation, resistance and lawlessness. Seven said there is currently no legislative authority for such a policy and six commenters are concerned about regulating activity on private land. Five pointed to selective logging and ecoforestry practices already in use and two want grandfathering for current owners. Four commenters pointed to the difficulty of compliance for small property owners in light of hazard mitigation (1), *FireSmart* guidelines (2), and construction requirements (1). Seven commenters see developers as more of a problem than property owners.

- “This is getting to be more like it. Understanding that the evaluation of ‘tree cutting’ or other directives, must be clearly outlined.”
- “If organized and expressed as a simple percentage consistent with international biodiversity objectives i.e. all lots must maintain, conserve or restore at least 30% of their lot as a forest / native species community.”
- “Why is there so much emphasis on tree cutting. I cut down lots of dead, hazardous and other trees for fire smarting purposes. I have also planted dozens of trees on my property. Who are you to tell me which of those trees I cut or planted met your objectives.”
- “Property owners are a small part of the problem. Developers are far more of a(n) issue, in much the same way that only a few corporations on this planet are causing 70% of the GHGs.”

Conclusions: Question 3

Current OCP policies lean towards encouraging certain behaviours and applying more prescriptive strategies (e.g., through rezoning applications or establishing DPAs) in targeted areas. Clearly, there is an appetite among those surveyed to take a more assertive approach to protecting and enhancing biodiversity on the island.

Since clear cutting and site clearing on private properties is the major concern, the development of new regulations might begin there, although commenters raised concerns about resistance and litigation by property owners and the difficulty of

enforcing compliance. The implementation of protective and restorative measures in public spaces is also an area of high consensus. A need was also expressed for more educational materials directed to what is possible in each of the specific land use areas and zones.

Question 4: Coastal Douglas-fir Toolkit Policies

Q4: Please rate the degree to which you would support the Local Trust Committee in implementing each of the following activities:

- Establish policies and regulations to protect and restore CDF ecosystems on private property
- Establish new Development Permit Areas to protect and restore CDF ecosystems in high priority areas
- Establish policies to prioritize parkland dedication at the time of subdivision if it results in protection of CDF ecosystems.

The purpose of this question is to gauge support for three key policy streams emerging from the Islands Trust’s *Coastal Douglas-fir Toolkit*. None of the provisions of the CDF Toolkit have yet been implemented on Gabriola.

General Findings

There were 285 responses to this question and 121 comments. 55 people skipped this question (16%).

As Table 9 shows, there is support for all three protection policies. Policies that prioritize parkland received the highest evaluation of *Strongly Support*, at 63% compared to 58% for new Development Permit Areas and 48% for policies and regulations to protect and restore CDF ecosystems on private property.

| | Strongly Support | Support | Support in Principle but Need More Information | Do Not Support | Not Sure |
|--|-------------------------|----------------|---|-----------------------|-----------------|
| Develop new policies and regulations to protect and restore CDF ecosystems on private properties | 48% | 21% | 22% | 7% | 2% |
| Establish new Development Permit Areas to protect and restore CDF ecosystems in high priority areas of the island | 58% | 22% | 15% | 3% | 3% |
| Develop new policies which prioritize parkland dedication at the time of subdivision if it results in protection of CDF ecosystems | 63% | 19% | 13% | 3% | 3% |

As Table 10 below shows, when levels of support (*Strongly Support*, *Support*, and *Support in Principle*) are combined, the rankings are as follows:

- Develop new policies which prioritize parkland dedication at the time of subdivision if it results in protection of CDF ecosystems (82%-95%)
- Establish new Development Permit Areas to protect and restore CDF ecosystems in high priority areas of the island (80%-94%)
- Develop new policies and regulations to protect and restore CDF ecosystems on private properties (63%-91%).

| Policy | Strongly Support | Support | Support in Principle but Need More Information |
|--|-------------------------|----------------|---|
| Develop new policies which prioritize parkland dedication at the time of subdivision if it results in protection of CDF ecosystems | 63% | 19% | 13% |
| Establish new Development Permit Areas to protect and restore CDF ecosystems in high priority areas of the island | 58% | 22% | 15% |
| Develop new policies and regulations to protect and restore CDF ecosystems on private properties | 48% | 21% | 22% |

Qualitative Responses

Question 4 received 121 comments distributed across the three policy options and the category *Other*, as outlined below.

a) Policies and Regulations Aimed at Private Property

Thirty-two comments were submitted on this option, representing 26% of the 121 total comments.

While many respondents are supportive generally, quite a few have concerns similar to those expressed in the previous question, such as the infringement on property rights, small lot compliance, and penalizing those already using good practices. Four commenters want clearly defined and detailed parameters, and one mentioned the need for educational materials that are zone- and site- specific. Four want forest protection first and one wants forest preservation on public lands. The following comments demonstrate these concerns.

- “Even if the Trust cannot do this [clear-cutting regulations], it should never stop trying and advocating for this.”

- “Hard to balance landowner rights and community rights.”
- “No more logging or building of any kind in red zone areas. Protect the Douglas fir areas first and foremost.”

b) Establish New Development Permit Areas in Priority Zones

Twenty-two comments were submitted on this option, representing 18% of the total comments.

A solid majority of respondents are in favour of this suggestion. Those that did comment are in favour of applying DPAs to larger and/or public tracts of land (5), with one seeing the educational benefits of public visibility. One commenter feels there might be Indigenous resistance. Four commenters rejected more development and two want to see the application be retroactive in the interests of protection and fairness. The following comments illustrate some of these concerns.

- “Any publicly visible restoration projects are an opportunity to educate and engage people. Post-Covid reality is outdoors!”
- “On public land only.”
- “I suspect the Snuneymuxw may not support this for the Crown / treaty lands where most of the contiguous CDF areas remain.”

c) Subdivision That Prioritizes Parkland of CDF Ecosystem

Thirty-eight comments were submitted on this option, representing 31% of the total comments.

Although there is a more solid majority support for this suggestion in the quantitative responses, it did attract more comments than the previous two questions. Thirteen commenters rejected any more subdivision altogether, no matter what amenity concessions are proposed. Five think we already have regulations of that type and two see such a regulation as being ineffective. One commenter argued for co-management with Indigenous partners. The following comments illustrate some of these concerns.

- “There are legal requirements set by provincial legislation in regards for parkland at the time of subdivision. New policies would be ineffective.”
- “Amenities given shouldn’t be the carrot for developers to have their proposals passed or densities allocated in their favour.”
- “No further development or increased densities. The Trust’s job is to preserve and protect the environment and not be density brokers.”

d) Other Responses

Twenty-nine comments were submitted on this option, representing 24% of the total comments.

As was the case for responses to this question more generally, the main focus is the rejection of any further subdivision or development (7). Several commenters are concerned about the lack of time to make decisions because too little forest would be left. Two mentioned the need for mapping both buildout and forest preservation priority areas combined. Other suggestions included a native plant nursery, assessment of existing legislation and site-specific guidance. The following comments illustrate some of these concerns.

- “Incentive-based voluntary stewardship delivered by local conservancies and trusts has long been proven to be an effective and expeditious tool over long road to regulation and enforcement. We don’t have that kind of time now!!!!”
- “Finding ways to protect larger areas of land (parks, protected zones, etc.) rather than bits and pieces on people’s small lots would be more effective in actually preserving the CDF forest environment.”
- “Establish programs to support landowners who develop land using environmentally sound methods. Discourage those who clearcut their properties.”

Conclusions: Question 4

Survey respondents are clearly supportive of all measures to protect and enhance Gabriola’s CDF biogeoclimatic zone. But as the qualitative responses above show, there are certain caveats and conditions that survey respondents want to see implemented.

Regulations applicable to existing properties are seen as important but there is also the acknowledgement of the potential for resistance from private property owners. Parkland enhancement is also seen as desirable; however, it is also seen as being too closely tied to development, ecological disturbance and increased density. As in the previous question, the development of educational materials is seen as important.

Question 5: Groundwater Protection Measures

Q5: Please rate your level of support for the Local Trust Committee to explore the following options to identify and protect groundwater quality and quantity on Gabriola Island:

- Develop new regulations that would require rainwater collection and re-use for domestic purposes for new dwellings

- Develop new regulations that would require groundwater monitoring and data collection for new commercial, industrial, institutional or multi-family developments
- Provide educational materials to residents on groundwater quality and quantity protection measures
- Develop new proof of water requirements for subdivision applications that are aligned with local groundwater conditions and the Islands Trust 'preserve and protect' mandate
- Develop policies and regulations that encourage retention of forests and watershed ecosystems to promote groundwater recharge

This question was intended to gather feedback on five broad policy directions to protect and enhance sustainability of groundwater resources.

General Findings

There were 277 responses to this question and 194 comments. 63 people skipped this question (23%). Table 11 below shows all responses to this question.

| Table 11: Support for Groundwater Quality and Quantity Protection Options | | | | | |
|--|-----------------------|--------------|----------------|-----------------|--------------------------|
| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
| Develop new regulations that would require rainwater collection and re-use for domestic purposes for new dwellings | 68% | 23% | 5% | 1% | 1% |
| Develop new regulations that would require groundwater monitoring and data collection for new commercial, industrial, institutional or multi-family developments | 69% | 19% | 4% | 2% | 2% |
| Provide educational materials to residents on groundwater quality and quantity protection measures | 62% | 26% | 9% | 0% | 2% |
| Develop new proof of water requirements for subdivision applications that are aligned with local groundwater conditions and the Islands Trust 'preserve and protect' mandate | 70% | 19% | 4% | 2% | 1% |
| Develop policies and regulations that encourage retention of forests and watershed ecosystems to promote groundwater recharge | 68% | 20% | 6% | 1% | 2% |

When the choices *Strongly Agree* and *Agree* are combined, as in Table 12 below, there is very strong support (i.e., above 85%) for implementing all of the policies to protect groundwater quality and quantity on Gabriola. Respondents gave a slightly higher rating to developing new regulations requiring rainwater collection and re-use for domestic purposes for new dwellings.

| Table 12: Combined Support for Groundwater Quality and Quantity Protection Options | | | |
|--|-----------------------|--------------|------------------------|
| Policy | Strongly Agree | Agree | Combined Rating |
| Develop new regulations that would require rainwater collection and re-use for domestic purposes for new dwellings | 68% | 24% | 92% |
| Develop new regulations that would require groundwater monitoring and data collection for new commercial, industrial, institutional or multi-family developments | 69% | 20% | 89% |
| Provide educational materials to residents on groundwater quality and quantity protection measures | 62% | 26% | 88% |
| Develop new proof of water requirements for subdivision applications that are aligned with local groundwater conditions and the Islands Trust 'preserve and protect' mandate | 70% | 20% | 90% |
| Develop policies and regulations that encourage retention of forests and watershed ecosystems to promote groundwater recharge | 68% | 20% | 88% |

Findings by Housing Status

There is no significant difference between property owners and renters in regard to these measures with one exception: while both groups see education as a useful tool, property owners are more likely to take this position (89%) than renters (75%).

Qualitative Responses

This question received 194 comments distributed across the five policy options and the category *Other*, as outlined below.

a) Require Rainwater Collection for New Dwellings

Forty-seven comments were submitted on this option, representing 24% of the 194 total comments.

This option has the highest level of support in the quantitative responses as well as the highest number of comments. Eighteen commenters support making rainwater catchment mandatory: 13 support mandatory catchment for all new buildings including affordable or multi-units; three support it for all dwellings; and, two for all structures. Two commenters pointed out that such a regulation would be under the

RDN's jurisdiction. Five want either incentives or rebates for cisterns. Two are concerned about construction costs and one about cistern maintenance costs.

The following comments illustrate some of these perspectives.

- “We rely solely on rainwater but to get a mortgage HAD to drill a well.”
- “Affordable and rental housing should not be exempt.”
- “Provide more rebates for people interested in retrofitting older homes with cisterns.”

b) Ground Water Monitoring and Data Collection

Thirty-one comments were submitted on this option, representing 16% of the total comments.

This option also has a high level of support in the quantitative responses. The comments are mainly directed to development. Eight commenters want no development, especially of the listed types but also including multi-unit housing. One commenter proposed no well use at all for all new developments. Three commenters think data collection is useful although one feels that monitoring by itself is insufficient. One commenter wants a groundwater map showing water abundance and quality. The following comments illustrate some of these perspectives:

- “100%, also make it retroactive to existing commercial, industrial, institutional developments.”
- “And not just the volume/GPM of a well. Much of the well water on Gabe is not suitable for potable purposes for many reasons, some of which are very costly and inefficient to mitigate.”
- “Need a groundwater map of high/low or poor quality for island.”
- “Any of the above [structure types] are just not acceptable on the island and would further impact the already distressed island ecology and none of this addresses the threat that any of these developments present to the already endangered groundwater supply via sewage or contaminant incursion.”

c) Groundwater Educational Material

Twenty-five comments were submitted for this option, representing 13% of the total comments.

This option also garnered high support in the quantitative responses and has the distinction of being the only question in the survey that did not garner any *Not Sure* responses. Most of the commenters said that education is good but not effective by itself. Five argued that sufficient information is already available but two said area-

specific information would be helpful. Four commenters said that education is effective and necessary. The following comments describe some of these perspectives.

- “Yes, promote an attitude of stewardship instead of exploitation.”
- “I feel we need to compel people to change. The time for education and asking nicely has passed long ago.”
- “Maybe, let people know the geography of this [groundwater] and where shortages have happened, how rectified.”
- “All new owners and renters could be given guidelines for water protection and use. We would all have enough water if we collected”.

d) Subdivision Proof of Water Requirements

Thirty-nine comments were submitted on this option, representing 20% of the total comments.

Many commenters are against any subdivisions. For those who are not, the emphasis is on catchment, not well water use (5). Several feel requirements are already in place while several others feel there are jurisdictional issues. Three commenters are concerned about the unpredictability of climate change effects and several pointed to the difficulty of water adequacy assessments. The following comments illustrate some of these perspectives.

- “I believe any new subdivisions should not be relying on well-water, except as a backup source only.”
- “This sounds like a good idea but determining local groundwater conditions is not easy.”
- “N/a if using more rainwater catchment and well feed into cistern systems. Plus-- it’s next to impossible outside of initial well pump tests to prove long term hydrology predictability. Better to emphasize and require rainwater collection and heavy conservation and ed measures.

e) Forest and Watershed Retention Approach

Twenty-seven comments were submitted for this option, representing 14% of the total comments.

Four commenters think this proposal would be effective but three feel that enforcement, not encouragement, is required. One feels that education before regulation is necessary. Four believe regulations protecting water are already in effect. The following comments describe some of these perspectives.

- “Absolutely, this [forest retention] must be done at a community level, individuals can’t get this done.”
- “We already have riparian area regulations in spite of the fact that a majority of residents opposed it.”

f) Other Responses

Twenty-five comments were submitted for this option, representing 13% of the total comments.

The most common concerns are complaints about the Island Trust (4) and incentivizing programs for cistern installation (4). A suggestion was made to exempt cisterns from lot coverage and setback regulations. Grey water use and composting toilets are also listed as possible solutions. The following comments illustrate some of these perspectives.

- “Provide assistance to existing homeowners to install collection systems.”
- “Remove cisterns from list of structures considered in lot coverage. Also allow them within the setback on small lots.”
- “Create rules around minimum volumes of water storage (tied to building area) in all new builds.”
- “As a fairly new resident 5 years, we didn’t understand that a coastal community would have water issues. It would have been helpful to have a brochure for anyone looking to buy to help deal with the issue and understand the importance.”

Conclusions: Question 5

There is strong support for the entire array of policy options for protecting groundwater on Gabriola. Since water sufficiency appears as a major concern across many survey questions, there is likely to be a consensus for regulations requiring water catchment and storage in new dwellings of all types and support for promoting and assisting residents to develop or enhance water storage systems on existing properties. There is also support for developing and distributing informational materials to all householders and new residents. If forest and site integrity protection can be more explicitly tied to water retention, there may be a greater willingness to consider protective measures.