



REQUEST FOR DECISION

Tiger Bay Development Corporation -
OCP & Zoning Amendment Application
(South Britannia)

Meeting Date: March 24, 2021

To: SLRD Board

Applicant: Tiger Bay Development Corporation ("Tiger Bay")

Location: South Britannia, Electoral Area D

Legal Descriptions:

1. Part of District Lot 1583 Group 1 New Westminster District Except: Firstly; Part In Reference Plan 4390, Secondly; Part in Reference Plan 4878, Thirdly; Part on Plan 21576, Fourthly; Part Shown as 8.31 Acres on Highway Plan 76 Fifthly; Part Shown as 0.08 Acres on Highway Plan 76, Sixthly; Portion on Plan BCP29232 PID 010-026-151
 2. Lot A, Except Part Dedicated Road on Plan BCP28651, District Lots 1583, 2001 and 7034 Plan 21576 PID 010-077-227
 3. Parcel 1 (Reference Plan 4878) of District Lot 1583 Group 1 New Westminster District Except Part on Plan 21576 PID 010-025-952
 4. Parcel 1 (Reference Plan 4878) of District Lot 2001 Group 1 New Westminster District Except Part on Plan 21576 PID 010-025-901
 5. Part of Lot A Except: Part Dedicated Road on Plan BCP25632 District Lot 2001 and 7035 Group 1 New Westminster District Plan 20309 PID 006-646-921
 6. Part of District Lot 4008 Group 1 New Westminster District Except: Firstly: Part on Highway Plan 76, Secondly: Part on Plan BCP29235 PID 010-025-766
-

OCP Designation: Mixed Residential, Single Family Residential, Community Commercial, Tourist Accommodation, Park, and Open Space Electoral Area D OCP Bylaw No. 1135-2013	Zoning: Rural Resource 3 and Rural Resource 4 Electoral Area D Zoning Bylaw No. 1350-2016	ALR Status: N/A	Development Permit Areas: Wildfire, RAR, Comprehensive
--	--	----------------------------------	---

RECOMMENDATIONS:

1. That prior to the Board's consideration of first reading of bylaw amendments to Electoral Area D Official Community Plan Bylaw No. 1135-2013 and Electoral Area D Zoning Bylaw No. 1350-2016 in respect to South Britannia, the applicant agree to a term sheet that summarizes all the obligations of the applicant with respect to the timing, amount, location and other pertinent information for all amenity contributions and any other relevant matters associated with the proposed development, including, but not limited to, rental housing, Minaty Bay Park and other park space, Minaty Bay Park public parking, a pedestrian overpass of the CN Rail tracks, the trail system, a community centre (possibly in combination with a public school), a playfield, transit facilities, a public works yard, a contribution to upgrading fire services (either by provision of an amenity and/or by agreeing to participate in a fire service area agreement bylaw), the conceptual design for an upgraded highway underpass, and the preparation of water, wastewater and stormwater master plans.
2. That prior to the Board's consideration of second reading and referral to Public Hearing of bylaw amendments to Electoral Area D Official Community Plan Bylaw No. 1135-2013 and Electoral Area D Zoning Bylaw No. 1350-2016 in respect to South Britannia, the applicant agree to an updated term sheet, as required, to include any additional details pertinent to the amenity contributions and any other relevant matters associated with the proposed development.
3. That prior to the Board's consideration of adoption of bylaw amendments to Electoral Area D Official Community Plan Bylaw No. 1135-2013 and Electoral Area D Zoning Bylaw No. 1350-2016 in respect to South Britannia:
 - (a) The SLRD receive written confirmation from CN Rail that it has approved a plan for the location, design and all terms and conditions for a railway crossing that provides permanent public access to Minaty Bay Park;
 - (b) Water, wastewater and stormwater master plans be completed for the entire site;
 - (c) A section 219 development agreement covenant be prepared in registrable form that reflects all the items set out in the term sheet agreed to by the SLRD and the applicant;
 - (d) The section 219 development agreement covenant include a provision that no development or building permits will be issued for any residential use on the site until construction of the surf park and associated commercial components has substantially commenced;
 - (e) The section 219 development agreement covenant include a provision that no building over 6 storeys or 20 metres in height be permitted until fire services are available to accommodate fighting fires for taller buildings.
4. That, subject to the preceding resolutions, the application move to the Board's consideration of first reading of bylaw amendments to Electoral Area D Official Community Plan Bylaw No. 1135-2013 and Electoral Area D Zoning Bylaw No. 1350-2016.

BACKGROUND:

On November 26, 2020, a staff report was presented to the Board that addressed the items that were raised in Board resolutions of June 24, 2020 regarding an application for South Britannia by Tiger Bay Development Corporation ("Tiger Bay"). The report can be viewed here: [Nov 26 COW report](#)

At the November 26, 2020 meeting, the following resolutions were made:

THAT it be recommended to the Regional Board:

THAT prior to the Board's consideration of first reading of bylaw amendments to Electoral Area D Official Community Plan Bylaw No. 1135-2013 and Electoral Area D Zoning Bylaw No. 1350-2016 in respect to South Britannia, the applicant:

- a. Work with SLRD staff to resolve all remaining outstanding issues that need to be addressed as part of advancing the land use plan, zoning and term sheet, including, but not limited to, amending the plan with respect to the distribution of residential density, the timing of delivery of the rental housing, the amount of park space provided for each residential subdivision phase, and the amount and location of Minaty Bay public parking;*
- b. Agree to a term sheet that summarizes all the obligations of the applicant with respect to the timing, amount, location and other pertinent information for all amenity contributions and any other relevant matters associated with the proposed development, including, but not limited to, rental housing, Minaty Bay Park and other park space, Minaty Bay Park public parking, a pedestrian overpass of the CN Rail tracks, the trail system, a community centre, a playfield, transit facilities, a public works yard, a contribution to upgrading fire services, the conceptual design for an upgraded highway underpass, and the preparation of water, wastewater and stormwater master plans.*

THAT before the preparation of any bylaws, a staff report be brought to a future Committee of the Whole meeting for Board review and input.

DISCUSSION:

Tiger Bay has provided an updated summary of its development proposal (Attachment A). This update is in response to the matters raised by the Board in Committee of the Whole on November 26, 2020 and subsequent discussions by the applicant with SLRD staff.

Attention is drawn in particular to the master plan concepts on page 3 and in Appendix 1 ("Revised Ekistics Plan Set") of the submission for reference. There are also two video links in the submission: one in Appendix 4 that presents an overview of the South Britannia proposal and one in Appendix 5 regarding the Wavegarden (referred to in this report as the "Surf Park").

Table 1 on the following page of this report summarizes the land uses. The development area covered by the proposed plan is 53.44 ha (132.0 acres). The applicant's total land holdings at South Britannia are 203.0 ha (501.6) acres, of which 138.9 ha (345.7 acres), or 68%, are not being developed. A further 10.58 ha (26.1 acres) are being set aside by the applicant for a future Highway 99 bypass route, if it is required in the future, but in the meantime it will also remain undeveloped.

Table 1: Summary of Proposed Uses

Use	Area ha (ac)	Share (%)	Comments
Housing			
Townhouse	11.89 (29.38)	-	425 units
Apartment	3.86 (9.54)	-	536 units, including some in mixed-use buildings
Flex Zone	2.18 (5.39)		89 townhouse units or a share of the 80 tourist cabins & glamping spots
Sub-Total	17.93 (44.31)	33.6%	1,050 units (max)
Commercial			
Recreation	3.78 (9.34)	-	Surf Park & associated facilities
General	0.74 (1.83)	-	Retail, office, food & beverage
Tourist Accommodation: hotels	2.06 (5.09)	-	Surf hotel (50 units), Minaty Bay lodge – two buildings (60 units)
Tourist Accommodation: tourist cabins & glamping	5.32 (13.15)	-	80 units
Parking	Part of commercial areas	-	140 stalls @ Minaty Bay Loop Road & 320 u/g stalls @ Surf Park – 460 stalls total
Sub-Total	11.90 (29.41)	22.3%	-
Institutional			
Public Works yard	0.41 (1.01)		SLRD facility
Transit hub	0.21 (0.51)	-	Local public transit, private bus, car sharing
Sub-Total	0.62 (1.52)	1.2%	-
Parks			
Minaty Bay Park	5.19 (12.82)	-	Includes 1.03 ha (2.54 acres) of creek/riparian area
Community Park	1.50 (3.71)		Youth playfield, community centre (557 sq m / 6,000 sq. ft), public parking and possibly a school
Other neighbourhood parks	1.80 (4.45)	-	Distributed throughout the neighbourhood
Sub-Total	8.49 (20.98)	15.9%	
Natural Spaces			
Riparian	9.14 (22.59)	-	Excludes riparian area in Minaty Bay Park
Natural	1.81 (4.47)	-	Primarily steep slopes
Sub-Total	10.95 (27.0)	20.5%	-
Other			
Water treatment plant & other utilities	0.16 (0.40)		Within residential zones
Right of Way	3.41 (8.43)		Main boulevard
Sub-Total	3.57 (8.83)	6.7 %	-
Total Development Area	53.44 (132.0)	100.0%	-
Remaining			
MOTI highway bypass	10.58 (26.14)	-	Highway 99 bypass land designation
Balance of holdings	138.98(345.9)	-	Remaining lands owned by Tiger Bay
Total Land Area	203.0 (501.6)	-	-
Development Area as % of Total Land Area	-	26.3%	-

The following sections address the matters raised by the Board at the November 26, 2020 Committee of the Whole meeting.

1. Residential

The maximum of 1,050 residential units (including 50 affordable rental units) remains unchanged from the previous submission.

Housing Forms

The applicant had proposed that all the housing be in the form of townhouses and apartment buildings up to six storeys. Those are anticipated to remain the two dominant forms of housing on the site, but the applicant is now proposing that duplexes and triplexes be added as permitted housing forms on the parcels designated for townhouses to provide more flexibility to respond to future market demand. Staff support this approach.

Housing Density/ Allocation

The Board concurred with staff's recommendation that the applicant move some share of the residential density to the southern portion of the development area (south of the highway underpass and east of the railways tracks) that was proposed entirely for low density tourist accommodation use, including cabins, glamping and one of the two buildings associated with the Minaty Bay lodge west across the railway tracks on the waterfront.¹

Tiger Bay's revised plan has moved 89 townhouse units to a 2.2 ha (5.4 acre) site (Parcel 12) south of the highway underpass. This allows all of the townhouse parcels to be opened up enough to provide four parking stalls for each conventional townhouse (two in the garage and two on the driveway) and three stalls for each tandem parking townhouse (two in the garage and one in the driveway).

The applicant has requested that Parcel 12 be a "flex zone" that will permit either up to 89 townhouse units or a number of tourist cabins and /or glamping spots, as was previously planned for that area. This will allow the property owner to determine the best development option based on market conditions at the time. The applicant understands and agrees that should the decision be made to develop tourist cabins and/or glamping spots on the parcel, the 89 townhouse units will not be reallocated to other areas of South Britannia.

Staff support this proposed "flex zone" under the condition that should the land owner elect to build tourist cabins and/or glamping spots, a restrictive covenant be registered on the lands that does not allow the units to be used for long-term occupancy (i.e., converted to residential housing). The terms and conditions of the restrictive covenant will be determined as part of the rezoning process and will form part of the development agreement.

Housing Affordability

The applicant will be required to enter into a housing agreement to ensure that 150 rental units are delivered and that 50 of these units are affordable. The two options are to:

1. Build all the units in a single phase, which might be one or two buildings that are entirely purpose-built rental.

¹ A maximum of 190 tourist accommodation units are planned for the entire South Britannia site, including hotel rooms, tourist cabins and glamping spots.

2. Distribute the units over a number of phases in different buildings that are a mix of ownership strata and rental (roughly 15% of each residential parcel).

Staff and the applicant agree that Option 1 in the preferred approach since it will be easier to manage the units compared to if they are spread out across the neighbourhood. However, at this early point in the process it is not possible to determine if a financial partner can be secured (e.g., BC Housing). Hence the need for a backup option.

The applicant has agreed to enter into a formal housing agreement prior to the first phase of residential development that will establish how the 150 units will be delivered. This commitment will be part of the development agreement.

Staff believe that is a reasonable approach, subject to Parcel 12 not being part of the rental housing if Option 2 is selected because, as discussed above, that parcel could be used for up to 89 townhouses, but it could also be used for tourist accommodation. The 150 units will therefore need to be delivered as part of the development of $(1,050 - 89 =) 961$ residential units on the north side of the tunnel.

Employee Housing

The applicant's analysis of the anticipated average wage rates for people working in South Britannia, including at the Surf Park, tourist accommodation, food and beverage establishments and other commercial enterprises, indicates that the wages will be similar to those of the regional labour force as a whole. The applicant also notes that South Britannia workers are likely to be drawn from a broader area, notably Squamish, with only some of the workers expected to live in the community. There will be both market and affordable rental housing available in South Britannia if there are workers seeking that option.

For these reasons, the applicant does not believe that there is the need for a formal employee housing policy or agreement. Staff concur.

2. Transportation

There were three key transportation issues that the applicant was directed by the Board to further address:

- The current one lane tunnel connecting the northern and southern portions of the site, which staff concluded would not be adequate to handle projected traffic volumes.
- More information on the transit hub.
- Regional and local transit service.

The applicant has now agreed to upgrade the tunnel to two lanes, along with accommodation for pedestrians and cyclists. The design and timing of the upgrade will be determined based on further consultation between the SLRD, the Ministry of Transportation and Infrastructure (MOTI) and the applicant and will be included in the development agreement.

Page 12 of the attached submission discusses the transit hub. It will include a dedicated bus pull-out area, short stay and/or co-op car parking, landscaping and a covered shelter.

Tiger Bay has been discussing regional and local transit with BC Transit. According to the applicant, there has been no commitment reached yet for BC Transit to provide local transit service, which staff appreciate since the development is years away from generating sufficient

demand to potentially support the service. The applicant does, however, anticipate that there may be private shuttle service and tour operators who will be using the transit hub to move passengers between Squamish and South Britannia and possibly other locations. This could include several stops within the community, but there is no assurance of this service.

Staff expect that it might be some time before the topic of public transit is fully resolved. The development agreement will ensure that the local transit hub is part of the first phase of development.

Tiger Bay has also been exploring the potential for a regional transit hub within the MOTI right of way adjacent to the former Galileo Coffee shop. The coffee shop is on land owned by the applicant and it is possible that the hub might also require some of this land. This topic is being further explored by staff with the applicant.

3. The Surf Park

A number of issues were raised about the Surf Park, which have been addressed at length in the applicant's attached submission. To summarize the applicant's responses:

- Tiger Bay will be the majority owner of the Surf Park and it will be constructed under an agreement with Wavegarden to use its proprietary design, equipment and technology.
- The Surf Park will be a viable enterprise, with a projected 120,000 uses annually.
- South Britannia is a good location for the Surf Park and it will complement other outdoor sport activities in the corridor.
- It will be a year-round operation that it will provide year-round tourism benefits to the corridor.
- The Surf Park is an important part of the planned employment base at South Britannia that will directly employ 60 – 70 people (with an annual payroll of about \$3.1 million), with several dozen more jobs in facilities tied, in part, to the Surf Park.
- These other facilities will include, for example, retail (e.g., sporting goods, sports fashion), food and beverage and possibly a day care.
- The Surf Park will hold a maximum of 90 surfers per hour and is not projected to have a significant impact on highway traffic volumes.
- In the event that the Surf Park were to fail, which the applicant believes is unlikely, the other components of South Britannia, including community commercial and tourist accommodation, would still be viable on their own.
- The Surf Park will draw from the same on-site well water as the rest of the South Britannia development.
- The water will be unheated and will be chlorinated using its own treatment plant, but less chlorinated than the rest of the South Britannia water supply because the water will be constantly moving.
- Various technologies will be employed to reduce energy consumption, with the Surf Park consuming less energy per hour on average than, for example, a ski lift or an 18-hole golf course (per the table on page 11 of Appendix 4).

4. Alternative Employment Generating Uses

The Board raised the question as to whether or not there may be other significant employment generating uses for South Britannia as an alternative to the Surf Park, such as light industry.

The applicant had considered a range of other employment generating uses at South Britannia as part of earlier submissions, including light industry, and concluded that this location did not offer any competitive advantages. The applicant also notes that a recent study for the District of Squamish (DoS) concluded that the DoS has sufficient light industrial space to meet projected demand for 20 or more years. It is also a more central and well served location than Tiger Bay.

Staff concur that attracting light industrial users to South Britannia would be challenging from a market perspective. There is the added consideration that light industrial uses in close proximity to residential, commercial, tourist accommodation and park uses could result in land use conflicts.

5. Clarification of the Commercial Components

Staff had noted to the Board that further clarification was needed from the applicant on the amount and type of commercial floorspace being proposed. The Board had also raised the question of whether or not enough commercial floorspace was being provided to serve the day-to-day needs of the community.

Tiger Bay has now clarified that it is proposing to provide between 3,000 and 4,000 sq. m. (32,290 – 43,060 sq. ft.) of commercial floorspace, as follows:

- Community commercial (e.g., convenience store, café, bakery, daycare, hair stylist): 800 sq. m. (8,610 sq. ft.)
- Office: 1,000 – 2,000 sq. m. (10,760 – 21,530 sq. ft.)
- Surf Park retail (e.g. sports goods): 500 sq. m. (5,380 sq. ft.)
- Food and beverage: (e.g., brewpub, cliff top restaurant): 700 sq. m. (7,540 sq. ft.)

The applicant notes that there are additional existing and planned commercial services in North Britannia (2,000 sq. m./ 21,528 sq. ft.) and that the South and North Britannia neighbourhoods should be viewed as one commercial market. Staff concur, but believe that the community commercial in South Britannia may be on the low side and would like the plan to include the potential for some expansion of the community commercial component over time if demand is greater than anticipated. Tiger Bay agrees and indicates that there is sufficient area in the two planned commercial areas to allow significantly more floorspace if required. This will be written into the zoning.

6. School Site

The Board directed that accommodation be made for an elementary school at South Britannia in the event that there is sufficient demand for one in the future. The applicant has had further discussions with School District No. 48 on the topic. The School District is open to the concept of a 1.5 ha (3.7 acre) joint school/community centre should the need for a school arise.

According to the School District, an elementary school could potentially be supported with a student age population of 200. This population may possibly be drawn from a broader area in the corridor beyond South and North Britannia.

Staff will be discussing this topic with the School District and applicant in more detail as part of preparing the OCP and zoning amending bylaws and term sheet for South Britannia, if directed by the Board to do so.

7. Community Centre

The applicant is proposing to construct a 557 sq m (6,000 sq ft) community centre adjacent to the playing field at the community park. The facility was proposed be a shell and turned over to the SLRD to be finished however the SLRD wishes.

The applicant has now agreed to provide a fully completed community centre, with language to be included in the development agreement as to when and how it will be delivered.

Staff and the applicant agree that specifying at this point how the community centre will be programmed and therefore designed is unnecessary. Rather, that should be determined closer to the time of construction when the needs of the South Britannia residents are better known. Whether or not there may be an attached elementary school will also be a factor in how the centre is designed. SLRD approval of the final design will be required in the development agreement.

8. Parks

The applicant has committed to delivering 35 public parking stalls for Minaty Bay Park users. This number is based on the recommendation of a consultant to the SLRD who examined the amount of parking provided at similar parks in the corridor and should help limit the amount of usage by visitors from outside the community. The parking lot will be provided immediately to the east of the CN Rail tracks close to where the pedestrian overpass will be located. The lot will be transferred to the ownership of the SLRD, which will allow the regional district to control how it is maintained and managed.

The applicant was proposing a total of 7.64 ha (18.9 acres) of park for South Britannia, including Minaty Bay, a community park and other smaller parks throughout the neighbourhood. This is now being increased by 0.85 ha (2.1 acres) by providing more park space at several locations in the neighbourhood. Most notably, that includes taking land originally planned to be private around the cliff top restaurant and turning it into park offering good views of Howe Sound. Staff believe that this added park space significantly enhances the planned parks network in the community.

9. Trail Connection to North Britannia

The applicant is exploring the possibility of overlaying the planned sanitary sewer right of way to North Britannia with a public access easement agreement for a pedestrian and cycling trail. Some parts of the right of way are on lands owned by the applicant, but other parts are under the control of MOTI. Staff are encouraging the applicant to continue to work on resolving this issue with MOTI so that the trail can be constructed in an early phase of development.

10. Fire Services

The consultants retained by the SLRD to assess the impact of proposed developments in the corridor, including the Britannia Beach, Furry Creek and Porteau areas, concluded that the Britannia Fire Department will need to change its level of service from exterior operations (outside of structures only) to interior operations (both outside and inside of structures) and will

require additional apparatus, as well more firefighters. The move to Interior Operations will also increase the Department's training requirements. There are significant costs associated with these changes.

Tiger Bay has indicated that it is prepared to contribute to the upgrading of the existing public safety services to expand their capacity, but the amount and timing of that contribution has not yet been determined. In addition, there will likely be a requirement that all of the new construction associated with the Howe Sound East communities (Porteau Cove, Furry Creek and Britannia South) will need to participate in a fire service area agreement and bylaw in order to fund the required ongoing fire service needs during the construction phase and build out of the communities. Staff are seeking the advice of the SLRD's fire service consultants on these topics.

11. Flood Protection

The applicant's engineering consultants have confirmed that a sea-level rise of 1 metre (3.3 ft) by 2100 is accounted for in the site plans, with the minimum flood construction level for structures ranging from 5 to 5.6 metres (16.4 to 18.4 ft). The SLRD's consulting engineer for this application concurs that this is acceptable.

12. Energy Provision

Tiger Bay has confirmed that it will be primarily relying on electric power supplied by BC Hydro and that it does not intend to connect a natural gas line to the development. The applicant has also committed to working with the SLRD on sustainable building initiatives that will reduce energy consumption. The BC Energy Step Code that is being phased in within the next 10 years will also dictate high efficiency construction standards.

13. Complete Community

South Britannia will provide a mix of living, employment, shopping and recreational opportunities and also provide the opportunity for an elementary school if required. Combined with the existing and planned commercial development in North Britannia, this will reduce travel outside the community by residents. However, it is recognized that, as with any community, there will be residents of South Britannia who will travel elsewhere for work and people working at South Britannia who will be commuting from elsewhere. Given that South and North Britannia combined will have limits to the amount and type of commercial space that can be viably supported, there will also be significant travel outside of the community for shopping and other purposes (e.g., health care). It is anticipated that much of this interaction will be with Squamish.

14. Conformity to Regional Growth Strategy

Staff confirm that the applicant's proposal is in conformity with the Regional Growth Strategy (RGS) and that the amendments to the OCP being sought by Tiger Bay would not result in any additional review under the RGS.

15. Sustainability Features

Pages 14 – 15 of Tiger Bay's attached submission describe the environmental, social and economic sustainability features of the South Britannia proposal. To briefly summarize:

- There will be significant environmental upgrades to the former gravel pit site, including to the creeks, the wetlands and vegetation.
- It will be a compact community, which will reduce the use of the automobile by residents for internal trips.

- There will be opportunities for social interaction and activities through the park space, the community centre (and possibly school) and the commercial services.
- There will be an estimated 417 to 631 jobs created by the Surf Park, tourist accommodation and other commercial activities, with the potential for an estimated 50 to 100 additional jobs in home based businesses.

NEXT STEPS:

If the recommended resolutions are moved by the Board, staff will prepare bylaws to amend Electoral Area D Official Community Plan Bylaw No. 1135-2013 and Electoral Area D Zoning Bylaw No. 1350-2016. A term sheet will also be prepared that would be turned into a full legal development agreement before adoption of the bylaws. Unless otherwise directed by the Board, the next time this item is brought forward will be to a Regular Board meeting with a staff report, the amending bylaws for consideration of first reading, and the term sheet.

ATTACHMENT:

Attachment A: South Britannia Committee of the Whole Submission by Tiger Bay, March 2021

Prepared by: E. Vance, Contract Planner and K. Needham, Director of Planning and Development Services

Reviewed by: K. Needham, Director of Planning and Development Services

Approved by: M. Helmer, Chief Administrative Officer

SOUTH BRITANNIA



Response to Committee of the Whole March 2021

Submitted by: Tiger Bay Development Corp.



Prepared by: Cameron Chalmers Consulting Inc.



1	Introduction.....	1
1.1	Purpose	1
1.2	Background.....	1
1.3	New Design Drawings.....	1
2	Responses to Committee of the Whole	2
2.1	Density Allocation and Housing Mix.....	2
2.2	Economic Development and Commercial Land Use	5
2.3	Wavegarden Commercial Surf-Park	7
2.4	Institutional Uses, Parks, and Trails.....	10
2.5	Transportation, Access	12
2.6	Fire Services	13
2.7	Other Matters	13
2.8	Sustainability Statement and Features.....	14
3	Closure.....	15

Table of Appendices

Appendix 1: Structuring Concept Plan

Appendix 2: Affordable Housing Submission

Appendix 3: Commercial Support Letters

Appendix 4 Wavegarden Sustainability Directives

Appendix 5: South Britannia Video Link

Appendix 6: Wavegarden Benefits Video Link

1 Introduction

1.1 Purpose

This submission is intended to provide additional information and response to comments and questions raised by the SLRD Committee of the Whole (CoW) on November 26, 2020. At the meeting, the CoW did not pass a specific resolution, but rather provided comments and questions on a range of matters in the South Britannia application. This submission is intended to provide detailed responses.

The responses summarize the current status of each of the points raised by the CoW. In some instances, the information provided is from previous submissions to the SLRD, and much of the submission is new information or refined information based on additional work undertaken following the CoW. There are a few matters raised that will be resolved through the remainder of the rezoning process, and this submission details how those issues will be resolved before completion of the rezoning process.

1.2 Background

Following the CoW meeting, the Owners and SLRD Staff collaborated on preparing a comprehensive summary of the comments expressed at the CoW. The Owners then prepared a framework for how each of the comments would be addressed prior to the next CoW meeting. A meeting with Staff followed, and this submission is the Owner's response and action plan for addressing each of the individual questions. On the direction of Staff, the Owners have listed and responded to the comments specifically. Though the comments are loosely grouped into topic areas, the submission is framed in a question-response format.

1.3 New Design Drawings

As many of the CoW comments impacted the design of the project, the Owner's re-engaged the lead design team at Ekistics to update the drawings. The new drawing submission is attached as Appendix 1 to this submission and will be referred to throughout the submission.

2 Responses to Committee of the Whole

2.1 Density Allocation and Housing Mix

2.1.1 Concern about density allocation.

The newly revised Structuring Concept prepared by Ekistics has incorporated a number of changes requested by the CoW and Staff. Specifically, it has expanded the residential footprint to include potential residential development south of Highway 99 in an area previously identified for tourism accommodation. This approach will include a flex-zone approach, to be ultimately resolved through the rezoning process, but will enable the project to expand horizontally to achieve the 1,000 (plus 50 affordable) units on a larger footprint than presented to CoW in November.

Additionally, the townhouse development has incorporated additional on-site parking, with each townhouse unit fronted by a minimum 5.5 metre long driveway. For conventional two-car garages, this will provide each unit with four parking stalls or a combination of storage and parking. For smaller units which may utilize tandem parking, there will be additional storage capacity or space for three vehicles per unit.

These two moves have spread out the ground-oriented housing forms in response to the comment that the townhouse portion of the site was considered too compact.

To ensure the density of 1,000 units is achieved, additional apartment buildings have been identified adjacent to the surf-park and a mirror building has been added adjacent to the previously proposed apartment building across the road from the surf-park. Consequently, the unit split between ground-oriented townhouse and apartment dwellings has shifted and the revised concept is effectively balanced.

Below is a comparison of the Structuring Concept presented on November 26, 2020, which is shown first, and the new, revised Structuring Concept second.



Figure 1: Initial Structuring Concept Plan (Usurped)



Figure 2: New Structuring Concept Plan

2.1.2 Preference for some residential density on the south side of the highway

The Owner is now proposing a “flex zone” for a portion of lands south the highway whereby a portion of the lands would be zoned for both tourism accommodation and residential multi-family use, thereby providing additional flexibility to deliver additional residential development if warranted or desired by the Owner. This approach would enable the Owner to make a determination prior to Development Permit, whether to proceed with the originally contemplated tourism accommodation, or the additional residential density. It may also enable the Owner to construct tourism accommodation initially, with additional townhouse development potential in the later stages of the development. As the project contemplates a multi-decade development cycle, the flex zone represents a reasonable long-term solution.

For clarity, the flex zone does not contemplate mixing tourism accommodation and residential development, and this approach will be clarified and additional information would be considered through the preparation of the rezoning bylaws.

2.1.3 Concern about strata roads/site layout having lack of space for visitor and resident parking etc.

The redesigned Structuring Concept will now provide four parking stalls per conventional townhouse, and three stalls for tandem-parked townhomes. This is a significant over-allotment from the current Zoning Bylaw parking requirements for townhouse development. This has been provided based on the concern that future occupants may not utilize the garage parking for vehicles, thereby creating a parking challenge in the strata neighbourhoods. Parking for the apartment units will be provided as per the current Zoning Bylaw standards.

For both townhouse and apartment uses, visitor, bicycle parking, and all other parking standards will be provided in accordance with the Zoning Bylaw and will be addressed in detail at the Development Permit stage.

The care, maintenance, enforcement, and operation of the strata roads will rest with each individual strata corporation.

2.1.4 Clarity on affordable housing approach is needed.

The Owner is fully committed to delivering 50 non-market rental housing units and 100 purpose built rental units and is agreeable to securing the delivery of those units through a Housing Agreement Bylaw as a pre-requisite to the first phase of residential development.

However, the exact nature of the Housing Agreement is not yet known and there are several options for how the rental housing will ultimately be delivered. Given the importance and complexity of the affordable housing approach, the Applicants have

prepared a detailed approach to affordable housing deliver which is attached as Appendix 2.

2.1.5 Suggestion for more diverse housing types such as tri-plex.

The Owner encourages the SLRD to provide as much flexibility as possible in the Zoning Bylaw to encourage a diversity of housing types. The Zoning Bylaw definition of townhouse currently permits tri-plex development, and the Owner anticipates additional variation in housing types including this form at the DP stage. The Owner would welcome the inclusion of duplex buildings as part of a townhouse definition for additional flexibility in housing types, and this additional flexibility could be included in the Comprehensive Development Zone for South Britannia.

2.1.6 Employee housing concerns.

The Owners submit the surf-park employees will have a range of income levels and will provide employment opportunities to a range of people with different housing needs. The proposal will provide at least 100 purpose-built rental units amongst the range of housing options. The Owner's also note that as a regional destination, it will likely draw employees from throughout the region and will not likely trigger a formal employee housing requirement to ensure adequate levels of employment. Additional information about the employment and income levels generated by the surf-park follows.

2.2 Economic Development and Commercial Land Use

2.2.1 Concern about surf-park viability relative to other employment options

Following the Board's 2017 direction to increase employment opportunities on the site, the Owners considered and researched a number of options to create jobs within the South Britannia masterplan. Conclusively, the industry that benefits the local economy most effectively is within the tourism and outdoor adventure sports, with in excess of 120,000 visitors/users per annum. Once operating, the surf-park will directly employ 60-70 people, with an annual payroll in excess of \$3.1m. This employment is exclusive to the Wavegarden and does not include additional employment opportunities available in the commercial/office lands assigned in the proposed Structuring Concept.

The indirect economic benefit to the region generated by the destination will help drive tourism accommodation on-site and locally, in addition to other supporting and service industries.

The world class surfing facility will act as an economic stimulant for the entire Sea to Sky Corridor while fitting with the ethos of the area. It will create more reason to visit the area throughout the year including the shoulder seasons. It will also attract more businesses and entrepreneurs to the area that have an interest within the surfing and outdoor sport industry.

Tiger Bay is committing to build the Wavegarden surf park in Phase 1. This instantly creates more than 100 new permanent jobs for the area. This does not include the brewery or 20 cabins proposed within Phase 1, nor does it include the construction industry jobs to build it.

There will be other jobs created in the following phases of the development from the hotel accommodation and their facilities. These are not limited to sports activities, food and beverage, wellness centre and tourism operations. Details of these jobs are listed in the document attached.

The community retail located within the residential neighbourhood will make provision for a range of conventional community commercial uses such as convenience store, café, bakery office, and personal/professional services.

The surf village and surrounding area will have retail such as sporting goods, tourism operators, fashion, gymnasium, food and beverage, daycare and training facilities. As indicated by the letters included in Attachment 3, the surf park has generated encouraging early interest from significant retail and food and beverage providers. Tiger Bay has started receiving 'Letters of Intent' for the office space from major companies within the surfing industry and small businesses within the area that see the benefit of having an office overlooking a surf park.

Office space will be located above the village retail and could support local businesses and local professional consultants.

Similar surf park developments in the United States are working closely with their municipalities and some have invested significant money as they see the economic benefits that come with the surfing facilities. For example, the City of Palm Desert is investing US\$36.5million in subsidies into the \$200 million Wavegarden surf park development that has recently been approved. Similarly, the City of Virginia Beach has invested US\$95million into the \$328million Wavegarden surf park development that has recently been approved.

In addition to the Wavegarden and specialty commercial anticipated adjacent to the Wavegarden, the land use proposal includes approximately 800 sqm community commercial space. The land use framework and draft CD zone contemplates general retail, personal service, and office uses within the commercial precinct. Additional office uses will be explored and are considered an attribute for the community.\

The Owner also notes that the commercial contemplated is at the level directed by the OCP, and further that with the impending commercial core development in Britannia North, there will be sufficient commercial development opportunity to meet the needs of residents of South Britannia.

2.3 Wavegarden Commercial Surf-Park

2.3.1 Concern about the viability and impacts of the Wavegarden.

The Wavegarden will represent a direct investment of between \$35-50 million dollars which will be made several years before the first phase of residential development is initiated. Accordingly, the viability of this investment has been scrutinized by Tiger Bay, Wavegarden and potential investors who have undertaken thorough analysis to confirm the viability of the business. The analysis has given comfort to all involved sufficient to make the major capital investment to construct it in phase 1. Further, the project is garnering support among investors and major players in the surf industry who are all confident, based on their experience with other similar facilities, that the project will represent a viable and attractive investment.

In the unlikely scenario of decommissioning the surf park, through careful landscaping design the pool could be easily modified into an artificial lake and park area. The outdoor sport facilities that are proposed to neighbour the surf park could then be extended in size. The anticipated CD zone will place the SLRD control of any alternate uses that may replace the surf-park if unsuccessful.

2.3.2 Types of employment and relative wages.

As mentioned previously, the surf-park will offer a range of employment from front-line service, lifesaving, specialist instructors through to upper management and general management positions. It will employ between 60-70 full-time equivalent positions with an estimated payroll of \$3.1 million.

2.3.3 Seasonality of the Use

Though the attractiveness of the Wavegarden the general public is expected to peak in summer months. The market analysis and experience from other comparable facilities indicates that there will be satisfactory demand to keep the surf park open during the winter months making it a year-round operation. The current estimate is that the facility will generate in excess of 120,000 uses per annum. During winter months, the facility will be sustained by advanced surfers, and those, such as Surf

Canada, seeking an all-season training facility and water-based recreation experience.

2.3.4 Ownership and operation

The majority ownership will be Tiger Bay Development Corp. The surf-park will be constructed based on an agreement with Wavegarden to use their proprietary design, equipment, and technology. Tiger Bay is in discussions with multiple surf park operators that have a trusted track record. Details about these potential groups can be shared in good faith when available. Wavegarden will assist with management during the early transition stages and has partners they work with if management is needing to be organized. Additionally, Tiger Bay Development Corp. has received significant interest from potential investors into the project which may be a means of assisting with the capital costs of the facility.

2.3.5 Environmental impacts, water and energy consumption of the Wavegarden.

Please see Wavegarden's "Sustainability Directives" attached as Appendix 3. The surf-park will be serviced from the on-site water well, and there will be strict protocols for draining the pool for maintenance or if necessary.

2.3.6 What are the traffic impacts of the Wavegarden given its rate of customer turnover?

As outlined in the Bunt report, the Wavegarden's visitors do not have a major effect on the traffic. The surf park only holds a maximum of 90 surfers per hour and the sessions are pre-booked creating a well-managed flow of visitors. The dispersion of traffic throughout the day, and the relatively small numbers do not generate a perceptible impact on the Sea-to-Sky Highway.

2.3.7 Concern about viability of tourism accommodation. What happens to tourism if Wavegarden fails?

It is intended that the accommodation by Minaty Bay south of the tunnel will be run independently of the Wavegarden and the surf hotel creating a different experience and a different reason to visit. The Surf Hotel business plan will be connected to the Wavegarden. But stand-alone tourism accommodation is viable in the Sea to Sky Corridor, particularly given the splendor of the setting. Hotel buildings are also very amenable to change of use for housing or office uses. Minaty Bay will become a spectacular regional asset that will generate tourism demand as the only waterfront hotel opportunity in a naturalized setting. In summary, the business models for the tourism accommodation is not linked directly to the surf-park except for the proposed surf-park hotel.

2.3.8 What type of commercial is contemplated and is there sufficient commercial to meet community needs?

The updated Structuring Concept plan identifies lands for providing commercial to meet the daily needs of residents in the neighbourhood. As shown on the following table, the proposal is for between 8,500 and 9,000 square feet of community commercial, between 10,000 and 21,000 square feet of office space, and an additional 7,500 square feet of food and beverage. These are in addition to the 5,000 square feet of retail adjacent to the surf park. In determining the amount, a balance was sought between the need to satisfy some of the neighbourhoods commercial needs in South Britannia, but without undermining the viability of the commercial core at North Britannia. The Applicant team is confident the level of commercial proposed is sufficient to meet the daily needs of the community and is viable from a development perspective.

COMMERCIAL GFA	LOCATION	SQ M	SQ FEET
Community Commercial		800	8,611
Retail (RE Agency, barber, etc)	P 11	100	1,076
Convenience Store	P 11	200	2,153
Café/ bakery	P 11	100	1,076
Daycare	P1 - Building B	200	2,153
Gym/ training facility	P1 - Building A	200	2,153
Office		1,000-2,000	10,764 - 21,528
Surf Village Retail		500	5,382
Retail A - sports	P2 - Surf village	100	1,076
Retail B - sports	P2 - Surf village	100	1,076
Retail C - fashion	P2 - Surf village	100	1,076
Retail D - fashion	P2 - Surf village	100	1,076
Retail E - tourism	P2 - Surf village	100	1,076
Food & Beverage		700	7,535
Brewpub	P2 - Surf village	400	4,306
Clifftop Restaurant	Clifftop park	300	3,229
TOTAL		3,000 - 4,000	32,292 - 43,056

2.3.9 Is a clean industry/business park an alternative?

The Owner invested significant effort to respond to previous 2017 Board direction to deliver viable and sustainable employment generating uses on the site. Considerations included the relative attractiveness of the land for industrial and business park uses. Relative to the other business park development opportunities in Squamish and the region, there is not any competitive advantage for that type of use on the lands.

As described, the Owner views the Wavegarden as a viable commercial and employment generator and given one that could be delivered in the first phase of

development. Undertaking a business park style development as a speculative venture would not deliver employment early in the development process and would not make a contribution to regional economic growth and support of the tourism industry to the extent the Wavegarden will.

At the direction of the CoW, the Owners have reviewed the District of Squamish *Employment Space Demand Model, 2020*, as a proxy for employment space demands in close proximity to the subject lands. The report concludes there is sufficient light-industrial space in Squamish for the next 20+ years, and that additional industrial land is not required before 2041. Given that Squamish has far greater servicing and infrastructure, and an established light-industrial business community, the viability of a business park at Britannia is likely unviable. Though there are some identified needs for additional medium and heavy industrial uses, those are not compatible with the SLRD's Official Community Plan direction to accommodate up to 1,000 residential homes in South Britannia.

2.3.10 Question about whether the proposal will result in a “complete community”

In response, the Owner believes the mix of multi-family residential, community based commercial, and school/institutional uses represents a land-use framework for a complete community. The Owner also notes that even though South Britannia will provide essential services and institutional uses for its residents, a substantial commercial town centre area is under construction in North Britannia, and accordingly the complete community context is Britannia Beach as a whole, rather than the component parts which has informed both the OCP policy and the development response.

2.4 Institutional Uses, Parks, and Trails

2.4.1 Question about the need for a public elementary school site. Should the SLRD preserve one even if SD 48 does not require one? Is a high school required?

Since the CoW meeting, the Owner re-engaged School District 48 to explore options for delivering a public elementary school in South Britannia. Though SD 48 previously advised they would not be seeking a school site, SD 48 has now clarified that they are open to a 1.5 ha joint school/community use site. The size of the site is based on ministry standards for a neighbourhood of this size and composition.

The proposed school site has been identified on the updated Structuring Concept Plan, and the School District is open to additional dialogue with the SLRD about the merits of a joint-use site. However, as the SLRD does not engage with agencies until after first reading, those dialogues will be deferred until after the formal referral.

2.4.2 Concern about the community centre being delivered as a building shell, and the timing of delivery.

The offer to provide a shell of the Community Centre in the fourth phase was the result of initial amenity proposal discussions which did not identify any specific uses for the community centre. Though the learning centre approach was discussed, in the absence of direction from the SLRD regarding potential programming, the amenity proposal was crafted to reflect the shell of a building the SLRD could outfit themselves or lease to private contractors who would be responsible for their own tenant improvements.

The Owners are interested in exploring potential improvements to the community centre for uses anticipated or directed by the SLRD as an addition to the amenity proposal. However, these improvements will likely involve discussion with the SLRD, SD48 and the Owners to program the joint use of the school and community centre site.

However, the Owner is prepared to work with both the SLRD and SD48 to establish a functional and useful community facility in South Britannia through the Land Development Agreement phase.

2.4.3 Concern and Questions about Minaty Bay Park usage, and a preference for primary use by Britannia residents.

The Owner intends to dedicate the land for Minaty Bay Park to the care and control of the SLRD who will own, manage, and program the park. This will enable the SLRD to regulate measures such as highway signage (or lack thereof) and other management approaches to regulate park usage

One element within the control of the Owner is the amount of parking provided in support of the park. SLRD Staff has undertaken a review of the parking requirements for the proposed park and have asked the Owners to provide 25 parking stalls with 10 overflow stalls. A location has been included on the new Structuring Concept Plan.

2.4.4 Concern with residential uses adjacent to the park

Neither the previous proposal, nor the new Structuring Concept, which includes residential south of the highway, would place residential development immediately adjacent to Minaty Bay Park.

2.4.5 Need for multi-use trail connection to North Britannia

The Owners have prepared a trails plan which identifies trail connections through the site with the intent of providing connections to off-site trails leading to destinations in Britannia, including North Britannia.

For off-site trail connections to North Britannia, the Owners are exploring the possibility of overlaying the proposed sanitary right-of-way alignment with a public access easement agreement over land under the control of the Owner. Portions of the sanitary alignment will be within the MOTI highway right-of-way which will require specific MOTI approval, and there are limited options to provide access connections within land accessible by the Owner. There is a commitment to explore any options possible as the trail connection would be an asset to the Britannia South community.

2.5 Transportation, Access

2.5.1 Requirement for two-lane access tunnel.

The main road through South Britannia, the tunnel, and Highway 99 are all Ministry of Transportation and Infrastructure roads and improvements. The connecting tunnel running below Highway 99 as it exists today is a single lane culvert. Tiger Bay has proposed to upgrade this culvert to allow for safe traffic circulation throughout the site once the main boulevard is built in Phase 2. Subject to MOTI approvals, the Owners are prepared to construct a two-way tunnel in support of the development.

The final condition of the tunnel will need to be resolved by all parties including both MoTI and the SLRD before bylaw adoption.

2.5.2 Question about regional and local transit.

The Owner has engaged with BC Transit to discuss a two-pronged approach to transit. For local transit, including private shuttle and tour operators, the transit hub located adjacent to the Wavegarden will provide ample space for local transit service for the Squamish transit system on either a permanent or seasonal basis. This local service will also potentially include one or two transit stops at Minaty Bay and on the main road in the residential precinct.

Details of the design will be undertaken as part of the first phase design, but will include a dedicated bus pull out area, short-stay and/or car-coop parking, landscaping, and covered shelter. It will be appropriately scaled for public transit and private shuttle and/or charter buses.



Figure 3: Transit Stop Examples

Regional transit warrants a very different approach. BC Transit has previously identified a regional transit location at Britannia North. However, the Owners are exploring the potential of a regional transit hub within the MOTI right of way adjacent to the former Garibaldi Coffee building. In preliminary discussions with BC Transit, they have expressed support for the two-pronged transit approach and the Owners are currently awaiting a response to a request for a letter of confirmation.

2.6 Fire Services

2.6.1 Need to understand specific impact on fire services and how it will be financed.

The Owner is supportive of the SLRD's initiatives regarding fire services and looks forward to future discussions around funding mechanisms and solutions to ensure the capacity of the fire service grows along with the development of South Britannia over time. The Owner acknowledges this will apply to both capital improvements and operating costs.

2.6.2 Project Fire Protection Measures

The Owner previously committed to full sprinkler protection for all buildings and is prepared to secure that commitment through a restrictive covenant. The Owner also notes that fire suppression, including wildfire protection, are matters anticipated in the new Development Permit Area Guidelines that will be approved as an OCP amendment to regulate development.

2.7 Other Matters

2.7.1 Clarify the flood construction elevations throughout the site and confirm the mitigation of sea-level rise.

All details of the minimum construction elevations for sea flood can be found on Pages 43-44 of Paul Turje's Engineering Report Volume 3.

In summary, this includes a 1 metre sea level rise by 2100, high tide, wave run up and storm surges, making a total minimum elevation of 5metres for Area A (North of tunnel), and 5.6 metres for Area C (Minaty Bay Lodge).

2.7.2 Regional Growth Strategy

The Owners have been advised by Staff, and it has been reported to the Board and Committee of the Whole that the proposal is generally consistent with the RGS and

OCP. Should minor amendments to the OCP be required to clarify the approval, those minor amendments would not trigger any additional review under the RGS.

2.7.3 Provide additional details on energy provision, and specifically natural gas and alternatives.

Tiger Bay does not intend to connect a Natural Gas line to the development. We will work closely with the SLRD to satisfy sustainable building initiatives that are agreed.

2.8 Sustainability Statement and Features

The environmental, social, and economic sustainability strategy helps shape the physical plan for the site and informs the plan's commitment to being environmentally sensitive, socially responsible, and economically efficient.

Environmental: Approximately 43% of the site area will be dedicated to parks, open space, restoration or environmental conservation areas. Community and local parks will consist of at least five to ten percent of the development area. The community design and planning will enhance the site's existing natural features. The wetlands on site will be reconstructed and the four creeks that cross through South Britannia will be enhanced with stream setbacks to maintain and improve the existing natural habitat. Part of the waterfront at Minaty Bay will be retained as a community park. Other important conservation efforts in South Britannia include:

1. The former gravel pit site will be remediated to create a healthy living environment;
2. Housing will be sited to maximize green space and create a compact building footprint;
3. Site grading, stream and tree planting, wetland enhancement, and water conservation will help to make the site climate change responsive;
4. Various active transportation choices including a shuttle and car share programs will reduce residents' need to drive;
5. Forward thinking home design will maximize energy efficiency;
6. Where possible, building materials will be sourced locally;
7. Stormwater will be treated naturally onsite with various water conservation design measures;
8. High quality water will be sourced on site;
9. A recycling culture will be created with various recycling and composting initiatives; and
10. Access to local food will be provided in the commercial center as well as potential community gardens located in the local parks.

Social: Developing a strong sense of place in the community is important. With the provision of generous public spaces in the commercial area and parks throughout the community, these spaces will help to build relationships between residents that are an important part of a close-knit community. Other social features include:

1. Arts, culture, and heritage reflected in South Britannia's west coast contemporary design;
2. The local commercial area in South Britannia will provide residents with their daily needs;
3. Residents can learn and play together in the shared indoor and outdoor recreational spaces;
4. Minaty Bay's community park and waterfront will retain its beautiful natural qualities where the local community can meet; and
5. Community design, including street oriented housing, will help to increase safety and reduce crime.

Economic: Live – work options are central to the South Britannia community as each resident will have an opportunity to work within their homes. The commercial area will also provide potential for local jobs. Other economic sustainability features include:

1. The community will provide and support efficient, reliable and affordable communications infrastructure for residents to connect beyond the community; and
2. Year-round recreational opportunities will attract residents and visitors to the neighbourhood commercial area, the trail network, and Minaty Bay Community Park.
3. An estimated 417 to 631 jobs could be created over the life of the from commercial uses and the surf park destination, as well as jobs related to the tourist accommodation. This estimate does not include the potential for 50 – 100 jobs related to home-based businesses.

3 Closure

We trust the foregoing provides ample response to each of the comments and questions raised by Committee of the Whole. At this stage of the process, the application has benefited from the collaborative discussions with the SLRD and the amendments reflect the results of those collaborations. We look forward to continued dialogue on this regionally significant proposal through the remainder of the process.

Appendix 1: Revised Ekistics Plan Set

ILLUSTRATIVE CONCEPT

LEGEND FEBRUARY 2021

- Subject Parcel Boundary
- Highway 99 Bypass Reserve
- Highway 99 Bypass Reserve Setback | 10m
- 5m Contour Interval
- Creeks
- Neighbourhood Connector Trail
- Strata Trail



STRUCTURING CONCEPT

LEGEND FEBRUARY 2021

- Subject Parcel Boundary
- Highway 99 Bypass Reserve
- Highway 99 Bypass Reserve Setback | 10m
- 5m Contour Interval
- Creeks
- Neighbourhood Connector Trail
- Strata Trail

DEVELOPMENT YIELD		
Townhome Flat + Walk-up	402	
Townhome Walk-out	64	
Townhome Structured Parking	48	
Townhome Podium	22	
Townhome Mixed-Use	5	
Apartment Residential	429	
Building C 40 Building F 40 Building I 44		
Building D 40 Building G 40 Building J 50		
Building E 40 Building H 35 Building K 50		
Building L 50		
Apartment Mixed Use	80	
Building A 40 Building B 40		
	1050	

DEVELOPMENT BY PARCEL			
1	2.13 ha 5.26 ac	222	42.2 UPA
Townhome Podium		22	
Apartment Mixed Use		80	
Apartment Residential		120	
3	4.46 ha 11.02 ac	196	17.8 UPA
Townhome Walk-up		79	
Townhome Walk out		37	
Apartment Residential		80	
5	2.74 ha 6.77 ac	70	10.3 UPA
Townhome Walk-up		48	
Townhome Walk out		22	
8	2.40 ha 5.93 ac	97	16.4 UPA
Townhome Walk-up		92	
Townhome Walk out		5	
9	1.89 ha 4.67 ac	112	24.0 UPA
Townhome Walk-up		64	
Townhome Structured Parking		48	
11	2.13 ha 5.26 ac	264	50.2 UPA
Townhome Walk-up		30	
Townhome Mixed-Use		5	
Apartment Residential		229	
12	2.18 ha 5.39 ac	89	16.5 UPA
Townhome Walk-up		89	
17.93 ha 44.31ac		1050	23.7 UPA

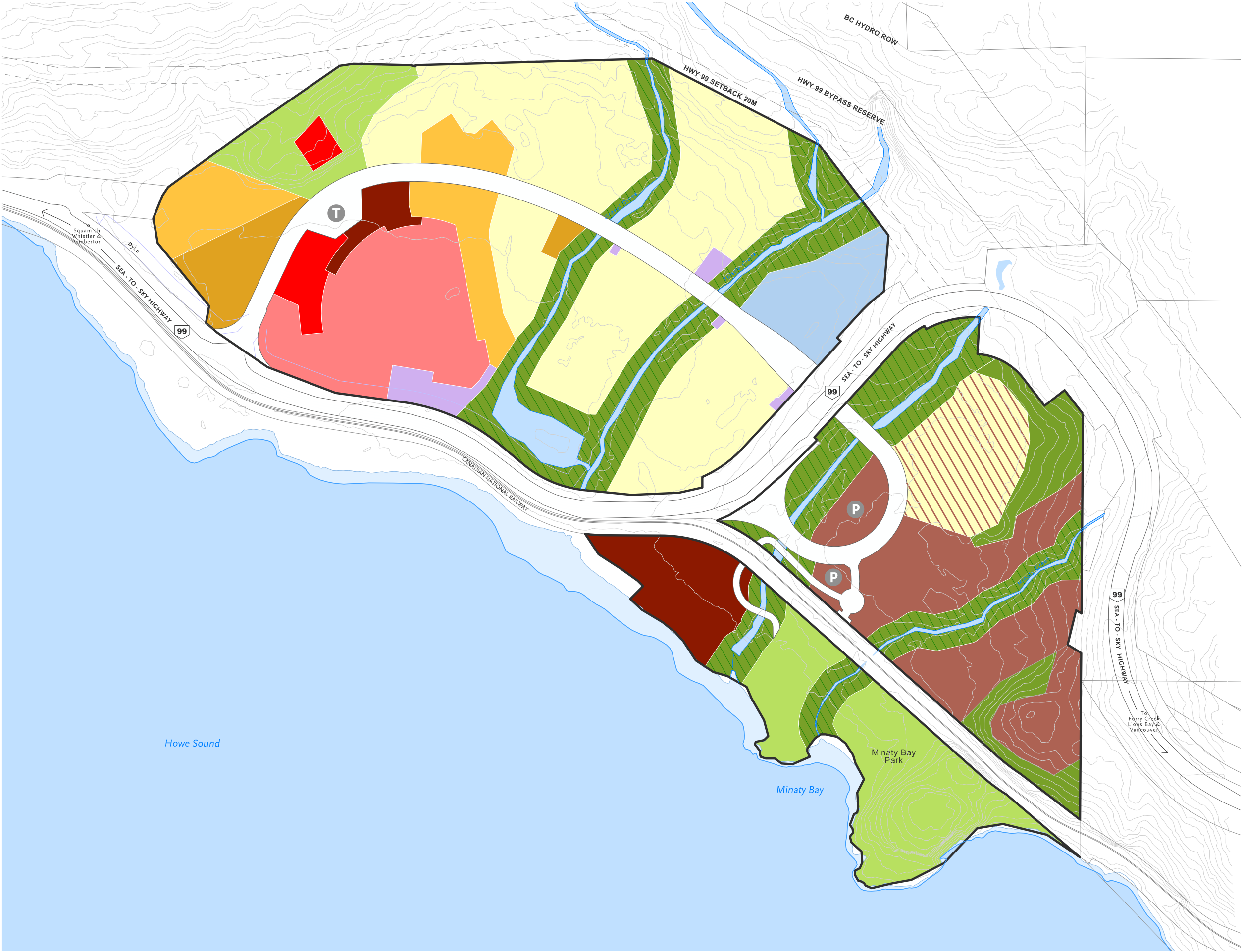


LAND USE PLAN

LEGEND FEBRUARY 2021

- Subject Parcel Boundary
53.44 ha | 132.05 ac
- Highway 99 Bypass Reserve
- Highway 99 Bypass Reserve Setback | 10m
- 5m Contour Interval
- Creeks
- TH - Transit Hub
- PK - Parking

LAND USE	
22.7%	MF1 - Multi Family (Townhouse) 12.15 ha 30.02 ac
5.0%	MF3 - Multi Family (Apartment) 2.69 ha 6.65 ac
2.2%	MU - Mixed Use 1.17 ha 2.89 ac
4.1%	Flex Residential 2.19 ha 5.41 ac
7.1%	RC - Recreation Commercial 3.78 ha 9.34 ac
1.4%	C - Commercial 0.74 ha 1.83 ac
3.9%	TC1 - Tourist Commercial (Hotel/Lodge) 2.06 ha 5.09 ac
10.0%	TC2 - Tourist Commercial (Glamping/Cabin) 5.32 ha 13.15 ac
2.8%	I - Institutional 1.50 ha 3.71 ac
1.1%	UT - Utility 0.57 ha 1.41 ac
11.1%	P - Park 5.95 ha 14.70 ac
18.9%	ES - Environmentally Sensitive (Riparian) 10.12 ha 25.00 ac
3.4%	N - Natural 1.81 ha 4.47 ac
6.3%	R/W - Right-of-Way 3.40 ha 8.40 ac
100%	53.44 ha 132.05 ac



Appendix 2: Affordable Housing Submission

South Britannia Affordable Housing Approach Clarification

To: Eric Vance, Contract Planner, Squamish Lillooet Regional District

From: Cameron Chalmers, MCIP, RPP on behalf of Tiger Bay Developments Ltd.

Date: February 8, 2021

Introduction

This submission is further to the December 2020 Committee of the Whole meeting and our subsequent discussions regarding affordable housing. Specifically, it clarifies the approach to securing and delivering affordable housing through the rezoning process.

Background

Throughout the application process, the Owner has agreed to deliver 150 affordable housing units. This allocation is comprised of 100 market rental housing units and 50 non-market affordable housing units. The Owner has agreed to ultimately secure the 150 units by way of a housing agreement, entered into by bylaw, before the first phase of residential development proceeds.

Through discussions with Staff to date and as expressed at Committee of the Whole, the Owner understands there is interest to secure the contribution before adoption of the Zone, and ideally deliver some or all of the affordable housing as early into the development of the residential component as possible. The following proposal is intended to achieve these SLRD interests.

Affordable Housing Proposal Framework

As outlined in our Community Amenity Contribution Proposal dated April 1, 2020 and our Draft Prior to Obligations and Land Development Agreement Term Sheet submission dated August 30, 2020, the Owner anticipates securing the delivery of affordable housing through the Land Development Agreement or separate agreement



as a prerequisite to rezoning adoption. Though the specifics of the agreement are open for discussion, the initial agreement will take the form of a restrictive covenant prohibiting any residential development until the Owner has entered into a formal Housing Agreement Bylaw that details and specifies the precise allocation and delivery of the affordable housing contribution to the satisfaction of the SLRD.

This approach will ensure that before rezoning is finalized, the Owner will commit to delivering the affordable housing units before the first residential building permit is issued. However, as described below, there are two different means by which the affordable housing is delivered. The two options are described in more detail below, but both options will most likely require partnerships outside of the Owner and the SRLD to succeed. Accordingly, the Owner expects the options to become clearer in the time between rezoning and the first phase of residential development, which is the primary rationale for finalizing the precise nature and form of the affordable housing closer to the development of the first phase of residential development.

Two Options for Affordable Housing

There are two options to deliver affordable housing through the project. The first, and preferred, option is to develop purpose built rental buildings to accommodate both the market and non-market housing. The second is to distribute affordable housing through the residential development, within each phase of development.

Option 1: Purpose Built Rental Option

The option preferred by the Owner is to deliver the purpose-built rental buildings and the non-market housing in clusters of purpose-built residential buildings. This option would likely require partnership with a suitable builder/operator and would likely require CHMC and/or BC Housing funding to create a financially viable building project. At this stage of the rezoning process, it is challenging to make a meaningful approach to any partners as the land use has not been confirmed and the first phase of residential development is still several years away.

The advantage of the cluster approach is that it would align with other projects in the corridor and be constructed and operated as purpose built rental buildings, with and without rent controls. However, it will require participation by other entities, and particularly funding agencies, that will take time and additional approvals certainty to materialize.

This option is the most likely to make a substantial affordable housing contribution earlier in the development of the lands. Should the partnerships come together at or near the first phase of residential development, the obligation will likely be met earlier in the process. The Owner accordingly requests that any future affordable housing be exempted from the phasing restrictions, and may proceed in advance of an entire



phase, subject to a suitable level of servicing and other standard development requirements.

Option 2: Integrated Housing Option

The second option is to disperse the affordable housing through the development, roughly at an allocation of 15% of each residential block. Though the possibility of smaller purpose-built buildings may remain, there is also an option to integrate rental housing, including the non-market component, into the regular market housing.

This approach will deliver on the obligation to provide 150 affordable housing units but will create additional complications with the ongoing operation of the affordable, and particularly the non-market, housing. However, is an option that would not necessarily require the same degree of financial partnerships with CMHC and/or BC Housing.

Closure

The approach to affordable housing outlined in this proposal is a two-staged approach. At rezoning the Owner will enter into a restrictive covenant in the Land Development agreement or other form that requires the Owner to provide a detailed affordable housing approach, to be secured by a formal housing agreement, before commencement of the first phase of residential development. By that time, the details of precisely how the 150 affordable housing units will be delivered and managed.

We look forward to additional insight and collaboration with the SLRD in determining finalizing a successful approach to affordable housing.

Appendix 3:

Commercial Support Letters



surfcanada



December 10, 2020

Board of Directors
Squamish Lillooet Regional District
Box 219, 1350 Aster Street
Pemberton, BC, V0N 2L0

Sent by Email: dom.domic@csasurfcanada.org

Dear Board of Directors:

Re: Support for Tiger Bay Rezoning Application, South Britannia

I am excited to support Tiger Bay Development Ltd's. application for rezoning at South Britannia.

SURF CANADA is the official recognized National Sport Federation for Surfing, Stand Up and Prone Paddleboard (SUP) in Canada, by the International Surfing Association (ISA) and the Canadian Olympic Committee (COC).

SURF CANADA is responsible for delivering the Nationals Championships for Surf and SUP each year and for selecting the official Canadian Surf and SUP Team to compete internationally.

The International Surfing Association (ISA) is recognized by the International Olympic Committee (IOC) as the International Federation (IF) and World Governing Authority for Surfing, SUP and Paddleboard.

Vision

- South Britannia, BC, Canada becomes one of the World's most unique surfing destinations.
- South Britannia becomes the Official Training and Events facility for Surf Canada.
- By having access to a Canadian based world-class facility, Surf Canada becomes one of the World's top performing surf teams.

Potential Hosting Opportunities

Classes/Academy:

- Introductory
- Intermediate
- Advanced
- Pro

Clinics:

- ISA Certified
- Local/Regional/Provincial Events:
- Club Events

National Events:

- Surf Canada Nationals
- SUP Nationals
- Olympic Trials

International Events:

- ISA World Surfing Games
- VISSLA ISA World Junior Surfing Championship
- ISA World SUP and Paddleboard Championship
- ISA World Masters Surfing Championship
- ISA World Longboard Surfing Championship
- ISA World Adaptive Surfing Championship
- ISA World Bodyboard Championship

Private Events:

- Stab High
- Rip Curl GromSearch

Hosting Benefits Local/Regional/Provincial:

Hosting grass roots events would help to grow and develop the sport of surf within the community of South Britannia, and the province of B.C..

National:

Hosting National competitions would attract top Canadian surf athletes from across the Nation and around the world to this facility. There would be economic, image, reputation and social benefits from hosting national events.

International:

Hosting an ISA event will attract competitors and surf fans from all corners of the world to your community, while providing a real, measurable economic impact and global media value.



surfcanada



Through an ISA event you can:

- Access a global audience through international media attention
- Grow tourism revenue from visitor spending
- Promote the country/region as a top surf destination
- Further establish the area as an international tourism destination
- Create a turnkey event activation with minimal community impact

PRIORITY ALIGNMENT

Community/Social Benefit

- Creating the opportunity to surf is in alignment with the Sea to Sky strategy for healthy living.
- Surfing is for everyone
- Truly unique attraction and Showcase the first World Class, purpose built, surf park in Canada
- Support the development of Team Canada and Canadian surf athletes

I strongly encourage the SLRD to approve the rezoning application as presented.

Yours Truly,



Dom Domic

Executive Director | Directeur Exécutif, CSA SURF CANADA

C : 604.721.4045 | dom.domic@csasurfcanda.org

www.csasurfcanda.org

1417 Broad Street | Victoria, B.C. V8W 2B2



July 29, 2020

Board of Directors
Squamish Lillooet Regional District
Box 219, 1350 Aster Street
Pemberton, BC, V0N 2L0

Sent by Email: info@slrd.bc.ca

Dear Board of Directors:

Re: Support for Tiger Bay Rezoning Application, South Britannia

I support Tiger Bay Development Ltd's. application for rezoning at South Britannia.

As a business owner within the Sea-to-sky corridor our focus at Gibbons has been to maintain and grow the culture of active outdoorspeople which is the cornerstone for why many of us have chosen to live and work here and why many more come from all over the world to experience it. We do this by supporting the athletes and artists who inform the culture and by investing in businesses that contribute to this mission.

We support the South Britannia project in its effort to live the same values. Specifically, by creating a plan that includes a new and first-in-Canada recreational asset that will complement other destination activities in the corridor, that has potential as a learning centre and Olympic development facility for up-and-coming and professional athletes; that includes opportunities for local businesses like ours in the shops and restaurants to be provided and in the myriad of spin-off businesses which are likely to move-to and start-up in support of the new surf venue – the economic benefit from such a world-class venue has very exciting potential for the region.

We applaud the balanced approach to development that includes affordable home ownership types for local families, and market rental and restricted rental homes for employees and others from within the corridor.

I encourage the SLRD to approve the rezoning application as presented.

Yours Truly,

A handwritten signature in black ink, appearing to read "Joey Gibbons", is written over a horizontal line.

Joey Gibbons

Cc: Kimberley Needham, Director of Planning
Steven Olmstead, Contract Planner



July 27th, 2020

Board of Directors
Squamish Lillooet Regional District
Box 219, 1350 Aster Street
Pemberton, BC, V0N 2L0

Sent by Email: info@slrd.bc.ca

Dear Board of Directors:

Re: Support for Tiger Bay Rezoning Application, South Britannia

On behalf of Rip Curl Canada, I support Tiger Bay Development Ltd's. application for rezoning at South Britannia.

The inclusion of the WaveGarden Surf Park at South Britannia will create a world class surfing facility on the Sea to Sky corridor, adding to the regions claim of being the adventure capital of Canada.

Rip Curl has several relationships with other WaveGarden locations around the world, including Spain, UK, and Australia. Each of these locations have had a positive economic & cultural impact to the retrospective regions on several fronts:

- providing local employment opportunities
- enhancing tourism to the area by bringing in participants of all levels, providing benefit to not only the venue but surrounding tourism destinations and providers
- provides a world class facility for National and International competitions, something that does not exist anywhere in Canada at this time.
- provides a world class training facility for elite Canadian surfers via for Olympic selection

I strongly believe that this will be a fantastic addition to the local area and will provide additional opportunities for people living on the west coast to maintain a healthy, outdoor lifestyle.

I encourage the SLRD to approve the rezoning application as presented.

Yours Truly,

Nick Russell
Vice President – Sales and Marketing
Rip Curl Canada

Cc: Kimberley Needham, Director of Planning
Steven Olmstead, Contract Planner



Rip Curl Canada, 108 – 173 Forester Street,
North Vancouver, British Columbia V7H 0A6

Date

Board of Directors

Squamish Lillooet Regional District

Box 219, 1350 Aster Street
Pemberton, BC, V0N 2L0

Sent by Email: info@slrd.bc.ca

Dear Board of Directors:

Re: Squamish Windsports Society Supports Tiger Bay Rezoning Application, South Britannia

Please accept this letter of support for Tiger Bay Development Ltd's application for rezoning at South Britannia. I have reviewed the application and believe that the proposed rezoning will bring certainty to the future of the South Britannia lands, which have been considered for development for many years and will create a complete, vibrant, and economically important community.

We believe that Tiger Bay Development will develop a quaint ocean front community that fits with the values of residents of the Sea to Sky corridor and the lower mainland. Specifically, the attainable multiple-family housing form, including a significant affordable housing, will create a mixed-community of individuals and families in a vibrant, walkable, complete community.

The WaveGarden surf park as an anchor to the community, and as a world-class recreation destination, will generate significant opportunity for employment and economic benefit for Britannia, Squamish and the entire region. The tourism accommodation uses in the hotels and glamping sites will draw additional economic opportunity and increase hospitality options in the region.

Finally, the dedication of the park at Minaty Bay will create a permanent legacy for the community and the entire region. As one of the only waterfront, beachfront parks in the Sea-to-Sky corridor, it will become a destination for active and passive recreation for residents and visitors alike.

We appreciate the development will require new servicing and will access Highway 99, but given the significant benefits arising from the project, and the willingness of Tiger Bay Development Ltd. to satisfy the requirements of the SLRD and the Ministry of Transportation and Infrastructure, on balance I support the project.

The Squamish Windsports Society is a not for profit organization based in Squamish with over 700 members. As a society we support continued growth of recreation, tourism and community development. This development will only further enhance the recreation and economic opportunities while maintaining our connection with the environment and sustainability.

Best regards,

Christopher Rollett

General Manager Squamish Windsports Society

Cc: Kimberley Needham, Director of Planning

Steven Olmstead, Contract Planner

Appendix 4:

Wavegarden Sustainability Directives



DRAFT – NOT FOR CIRCULATION

WAVEGARDEN COVE SUSTAINABILITY

ISSUE.3 _ 15/10/2020

Contents

1. Wavegarden’s Purpose 3

2. Positive Social & Community Impacts..... 3

3. Economic Impacts 7

4. Environmental Impacts 8

 4.1 Optimizing Site Potential..... 9

 4.2 Optimizing Energy Use 10

 4.3 Conserving Water 12

 4.4 Optimizing Material Use..... 13

 4.5 Optimizing Operational and Maintenance Practices 13

5. Summary Conclusions 14

 WAIVER 16

1. Wavegarden's Purpose

At Wavegarden, our vision is to share the exhilarating experience of surfing perfect waves with everyone, everywhere.

As life-long passionate surfers, we have developed a deep respect for the ocean, a love for the happiness and positive benefits that water and waves provide, and, we believe, a strong appreciation of how people and the planet need to coexist.

It is our aspiration that every Wavegarden surf facility is delivered and operated with the upmost respect for nature and our environment while becoming a destination for people of all ages, all abilities and all backgrounds to try surfing, exercise and be more active and healthy.



2. Positive Social & Community Impacts

Research has shown blue environments might allow us to tackle major public health challenges such as obesity, physical inactivity and mental health disorders (www.Bluehealth2020.eu).

- **Physical health** – for the first time in history, more people suffer from obesity than malnutrition. Regular exercise can have a hugely positive impact – the challenge is creating active communities and attractive leisure facilities. Surfing is a highly aspirational and healthy activity with extremely high levels of repeat activity e.g. the

average US surfer surfs for 2.5 hours 108 times a year¹. Surfing improves coordination, balance, muscle tone, endurance, cardiorespiratory capacity, concentration and general physical condition.

- **Mental health** – there is an alarming increase in mental health problems and depression is on the rise worldwide. A study by the California State University looked at how surfing can improve a person's mood and prevent depression and stress. The study determined people described as depressed, angry or stressed become more calm, relaxed and happy after going through a surfing program for a few weeks².
- **Youth engagement** – The link between exercise and self-esteem in adolescents is proven. Surfing is a multi-generational sport that is highly appealing to kids and teenagers who are lucky enough to have access to good waves. A 2018 study evaluating a surfing programme designed to increase personal wellbeing and connectedness to the natural environment among 'at risk' young people, found improved fitness, more positive attitudes towards school and friendships, and greater environmental awareness³.



¹ Ponting, 2015

² Pittsinger, 2010

³ A. Hignett, M.P. White, S. Pahl, R. Jenkin and M. Le Froy, 2018



Wavegarden is about sharing incredible experiences with anyone who wants to enjoy them, in a naturally healthy space. That includes people who may often feel excluded by disability, illness, age, gender, background, income, fears or pressures to conform.

Surfing is healthily addictive. It's about the buzz you feel afterwards because you overcame a challenge, had a full-on workout and let the power of waves wash over you. Going surfing is like pushing the reset button. Senses are re-awakened. Mind, body and spirit are recharged.

A Wavegarden Cove is the safest and most user friendly environment to learn and enjoy surfing with everyone. By creating perfect waves in a controlled way, every surf student will get the chance to try and learn without the fear of getting caught in a rip current, the wave being too big, or getting hit by another surfer. The Wavegarden Cove ensures that every surfer will get enough waves in a session and that they are perfect quality waves for the surfer's level. The Wavegarden Cove offers a safe and relaxed atmosphere where surf lessons become easier and fears disappear.



There is no typical visitor to a Wavegarden. Some come with their families or friends, others come by themselves. Some are seasoned surfers, some have never been on a board before in their life. Whatever their story when they arrive, a visit may give them hope and inspiration.

It may make them healthier and, most likely, it will give them an improved sense of wellbeing and it will always provide them with a great time.

There's an old saying in surfing: "The best surfer in the water is the one having the most fun!"



Wavegarden encourages the public's involvement during the design process so the project can have the best impact on the community and better address its needs. Project developers educate the local community through a series of public hearings/press releases in order to best understand what is needed by the population, in each particular case.

Social Impacts Case Study – Wavegarden, Surf Snowdonia

Clwb Syrffio is a surfing club that offers low cost and inclusive surfing opportunities for young people living in the Conwy Valley area who might not otherwise be able to access it.

The club helps members gain skills and qualifications in surfing, water safety and beach lifeguarding. Through its links with Surf Snowdonia the club also develops and encourages members to gain employment and work experience.

The Club, which currently has 26 boys and 20 girls aged from 8 to 18, meets early every Saturday morning to train at Surf Snowdonia before it opens to the general public. Surf Snowdonia provides the waves and equipment to the club for free, and some of the SS instructors give up their free time to coach the kids as volunteers.

Fifteen of the club's members have passed nationally recognised lifeguarding and first aid qualifications supported by the club and its partners.

Six of those young people are now employed at Surf Snowdonia in a variety of roles.

<https://www.clwbysyrffio.co.org/>






"Parents tell us all the time what a positive impact being part of the club has had on their children. For some it has helped them to focus more and knuckle down at school, for others it has helped to overcome fairly significant self-confidence issues. And now six of our members are over the moon to have jobs at a place and in an environment they really love. You could never put a value on the difference it has made to their lives."

Club Secretary Jon Williams

Wavegarden Property Ltd.
Confidential



3. Economic Impacts



A comprehensive study conducted in 2017⁴ demonstrated that high quality surfing waves have been proven to boost local economic activity:

- An increase in surrounding real estate values
- \$US18-25 million additional spend per surf location per year
- New surf breaks causes economic growth to rise by 3%

The estimated annual net economic benefit of a range of surf spots around the world support⁵ this claim:

- | | |
|------------------------------------|--|
| • Gold Coast Australia - \$820m | • Pleasure Point, CA - \$8.4m |
| • Trestles, California - \$45m | • Pichilemu, Chile - \$8m |
| • Mavericks, California - \$23.8m | • Mundaka, Spain - \$4.5m |
| • Stradbroke Is, Australia - \$20m | • Triple Crown of Surfing,
12 day event, Hawaii - \$20.9m |
| • Uluwatu, Bali - \$8.4m | |

In particular, a good surf break has very significant tourism potential. A 2013 survey⁶ of surfers found that:

- 91% of surfers had undertaken surf travel in the previous 5 years

⁴ McGregor & Wills, 2017

⁵ Ponting, 2015

⁶ Barbieri & Sotomayor, 2013

- 40% had taken more than 10 surf trips in 5 years
- 20% had taken more than 21 surf trips in 5 years

Wavegarden facilities in the UK and Australia have already proven their ability to attract both domestic and international surf tourists, create local jobs and deliver a positive economic boost.

An independent Economic Impact Study for the Wavegarden facility in Edinburgh Scotland concluded that:

- It will generate +155,000 additional tourism trips and +£8.821 million annual on and off site tourism expenditure.
- It will generate +80 temporary construction jobs over the two year construction program, +129 permanent direct and indirect jobs when operational.
- It will create opportunities for an estimated 50,000 local residents (residing within 30 minutes) to participate in sport activities per annum.

An independent Economic Impact Study for the Wavegarden facility in Birmingham concluded that:

Emerge Surf Birmingham is expected to create 100 full time equivalent jobs, attracting around 250,000 visitors a year and delivering an annual economic boost of between £18million-£21million to the region.



4. Environmental Impacts

Wavegarden aspires to have the minimum impact on our natural environment while taking the best possible mitigation measures during the design, construction and operational phases

of our projects. Our goal is to achieve a “Net Positive Impact” by delivering high social and economic benefits to the population in a sustainable and responsible way.



Sustainable design and construction is the practice of creating structures and using processes that are environmentally responsible and resource efficient throughout the life cycle of a building – from selecting the site to design, construction, operation, maintenance, renovation, and finally, deconstruction.

Wavegarden follows five fundamental principles of sustainable practices to help safeguard our natural environment:

1. Optimizing Site Potential
2. Optimizing Energy Use
3. Conserving Water
4. Optimizing Material Use
5. Optimizing Operational and Maintenance Practices

4.1 Optimizing Site Potential

Site selection is a first and primary principle for Wavegarden. We work with our development partners to consider the potential environmental impact of the location and site in terms of transportation, bio-diversity, noise, light, and many other factors.

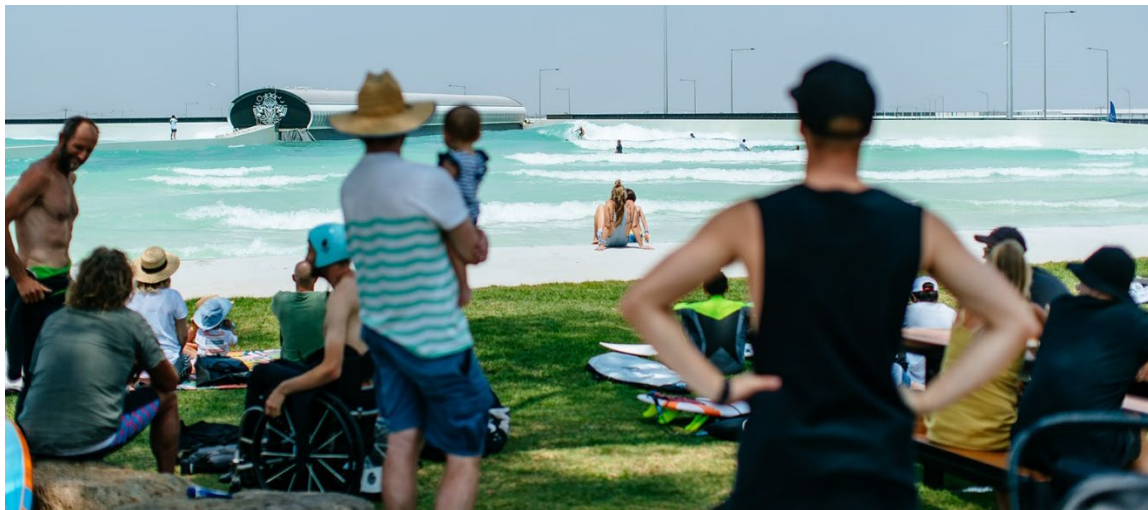
These will all play a role in how local ecosystems are impacted by the project. For example, potential transportation methods and their associated energy use are affected by site location. We work to avoid the development of environmentally sensitive lands and conserve land and wildlife habitat by encouraging development in areas with existing infrastructure. We also aim to conserve existing natural areas and restore damaged areas to provide habitat and enhance biodiversity (creating and promoting habitats for native species).

Wavegarden encourages a sustainable drainage strategy on all projects, maximizing green and permeable areas. Furthermore, the Wavegarden Cove can work as a storm water attenuation surface that redirects the extra water to a reservoir tank for later reuse.

The design of the cut and fill of the earth movements to accommodate the facility is always adapted in order to achieve the most efficient balance with the surrounding environment. Together with this, the accurate selection of the existing soil materials, avoids having to bring a big haul of soil to/from other locations, thus, maximizing the use of the existing environment.

Some of our projects are developed on sites where we can re-mediate water or soil contamination and deliver a net environmental benefit. For example, our project in Wales, UK, was delivered on a contaminated former steel works site.

4.2 Optimizing Energy Use



Wavegarden spent over 10 years in Research & Development to create by far the most energy efficient wave making system possible – this has and continues to be a major priority for the company. Wavegarden's engineering designs aim to reduce the environmental impacts of excessive energy use by achieving the maximal level of energy efficiency for the Wave generator, the water treatment plant and its systems.

The Wavegarden bespoke and patented system uses electric motors to move mechanical parts – there is nothing more energy efficient than this. We also recover energy into our system. The asynchronous electric motors used to activate the movement of the mechanical actuators have higher energy efficiency than European standard requirements (IEC 60034-30). These motors use part of the cycle to regenerate energy and thus recover part of it to maximize the efficiency.

The Wavegarden Cove is the most energy efficient technology in the sector – **using 10 times less energy** than the pneumatic systems used by most other surf park companies.

We have reduced the consumption of the waves to obtain average figures of **0.3 to 1 kWh** per wave depending on their size and power. In normal operation, the Wavegarden Cove machine and Water treatment plant consume **c. 300kWh** per 1h session. On top of that, the

wavegarden systems are monitored to support energy management and identify opportunities for additional energy savings by continuously tracking power consumption.

This is an achievement that we are immensely proud of and, as a result, our energy consumption compares extremely favorably with many comparable sport and commercial facilities in the world:

Wavegarden Cove Energy Consumption 300-350 KWh per hour⁷	VS	Pneumatic Surf Technologies: 3,200 kWh per hr ⁸
		Siam Park surf lagoon: 3,550 kWh per hour ⁹
		Large ski lift: 1,200 kWh per hour ¹⁰
		Small 6-seater ski lift (ski): 450 kWh per hour ¹⁰
		Indoor Skiing: 1,738 kWh per hour ¹¹
		18-hole golf course (average): 7,000 kWh per day ¹²
		IKEA Ametzondo (Bayonne): 9,800 kWh per day ¹³

It is positive that our current facilities in the UK and Australia are sourcing 100% of their energy from renewable sources. However, there is the potential to go even further.

The energy consumption of the Wavegarden technology is so low that we are developing our plans to deliver completely energy self-sufficient systems with the use of photovoltaic panels on the buildings within a surf park. Our aim is to be 100% "CARBON NEUTRAL" and we are now sure that this is possible. Further studies are ongoing to determine capital cost of this solution and the surface area of photovoltaics required. Furthermore, if our installations can generate 100% of its energy through photovoltaic panels, the additional energy produced that is not used can be injected into the local grid to act as a local renewable energy source.

Finally, we are working on a design to recover heat from the wave making system and use this for domestic hot water or for heating some of the buildings in the surf park. Also, the water in the lagoon itself can be used to increase the efficiency of air conditioning systems within surrounding buildings.

⁷ Actual average power consumption at operational Wavegarden facilities

⁸ Wavegarden analysis & data from confidential surf park in United States using pneumatic system, 2020

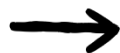
⁹ Declaracion Ambiental, Siam Park, 2014

¹⁰ <https://montagne-cable.legtux.org> 2020

¹¹ Swimming-and-skiing-fun-have-their-price, Ista.

¹² www.greenhotelier.org 2008

¹³ Les secrets de l'Ikea le moins énergivore du monde, LSA Green, 2017



Overall, we have estimated that the Carbon footprint generated by driving 4km in a petrol car is greater than that of surfing 1 hour in a Wavegarden Cove.

In the wider surf park development, we also propose passive building designs with natural heating, light and ventilation optimizations to reduce energy consumption.

4.3 Conserving Water

All Wavegarden lagoons are designed to provide the best quality and quantity of waves with as little water as possible.

The largest Wavegarden Cove surfing lagoon is a closed circuit basin that requires approximately 25,000m³ of water. No emptying or refilling is necessary, except to compensate for evaporation losses. Since the water does not need to be renewed, the water is not “lost”.

The average annual water consumption, taking into consideration evaporation, other losses and the water gained from rainfall, is in the region of 30,000m³ to 50,000m³. Furthermore, the wavegarden systems are monitored to support energy management and identify opportunities for additional water savings by tracking water consumption.

We have developed our own water treatment technology which is specifically designed for our Wavegarden Cove to help conserve water. As such, the Cove can be considered as a Water storage lake given that the water quality is kept in perfect condition and is classified as drinkable.

As with our energy consumption, our water consumption compares extremely favorably with many comparable sport facilities:

Typical Wavegarden Cove Annual Water Consumption 30,000 – 50,000 m ³ ¹⁴	VS	Olympic Swimming pool: c. 30-50,000 m ³ ¹⁵
		18 hole golf course Murcia: c. 260,000 m ³ ¹⁶
		18 hole golf course Aquitaine: 95,140 m ³ ¹⁷
		Football stadium: c. 40,000 m ³ ¹⁸

In our facility in Melbourne, 100% of the water required is actually from grey water supplied by the adjacent airport. Other projects will recover rainwater from adjacent housing/facilities, store it, and then use it as a means of filling the lagoon.

¹⁴ Actual average water consumption at operational Wavegarden facilities
¹⁵ Wavegarden analysis & UCPA, France
¹⁶ Estimación de las necesidades de agua de las gramíneas cespitosas de un campo de golf region de Murcia S.I.A.M. y I.M.I.D.A., 2005
¹⁷ "Charte Nationale Golf et Environnement", French Golf Federation, March 2013
¹⁸ "How much water do sports fields really ‘drink’", The Economic Times, June 2019



4.4 Optimizing Material Use

Wavegarden recognizes that it is also important to use recyclable materials and source these locally as much as possible. For the surf park as a whole, we encourage our development partners to use products and materials for which life-cycle information is available and that have preferable lower life-cycle impacts. Therefore, all structural materials are easily recyclable.

Our standard lagoon design involves a construction solution whereby almost the entire bottom of the lagoon is created with a recyclable liner that is laid on the ground without the need to concrete large areas. Concrete is typically only used for the side walls and for a plinth foundation which supports the wave machine. This represents only 3% of the total surface of the lagoon.

The materials used in the construction of our lagoons are non-toxic and can be recycled in the future as required. Also, the modular construction of the wave generator allows the re-use of the elements.

All structural elements are free of persistent, bio-accumulative, and toxic (PBT) chemicals associated with the life cycle of constructing materials. Lead, Cadmium and copper don't exist on the Wave generator structure.

Moreover, we measure and minimize the impact of artificial light and noise of the surf park on the environment by reducing the heat island effect and promoting a green masterplan.

4.5 Optimizing Operational and Maintenance Practices

The Wavegarden team has prepared operational and maintenance policies and procedures for the surfing lagoon based on our years of experience in the sector.

As such, we are able to specify systems, materials and procedures that streamline and simplify operational and maintenance practices. These procedures, for example, ensure that

the minimum water, energy, chemicals and cleaning products are used. In fact, we are introducing an improvement to our water treatment system in the coming months that will reduce already low use of chemicals to almost zero. We also ensure that the practices are not only more cost-effective, but they also reduce costs throughout the asset lifecycle.

At wavegarden we work with our partners to build the most sustainable experience, from operating the waves to the sustainable habits promoted in the facilities, providing specific guidelines for every step on the value chain.

During the operational phase of each surf park, we make sure that there are a series of sustainable practices put in place:

- Public transportations available to connect the facilities with the local community
- Implementation of bicycle parking and green vehicle infrastructures
- Sustainable food onsite, zero waste generation policy
- Recycling throughout the site
- All the surf gear has a second life cycle (donated, recycled or reused)
- Brand partnerships with agreed sustainability commitment purposes
- Ocean and nature conservancy awareness and education of the community with special school programs.



5. Summary Conclusions

As set out in our introduction, it is our aspiration that every Wavegarden surf facility is delivered and operated with the upmost respect for nature and our environment while becoming a destination for people of all ages, all abilities and all backgrounds to try surfing, exercise and be more active and healthy.

We firmly believe that our Wavegarden surf lagoons are the most sustainable artificial surf facilities and systems in the world today. Our system typically consumes only c. 350 KWh

(for our largest waves and half of this for smaller waves), which is ten times less than comparative pneumatic wave making systems and less energy than a single chair lift at a ski resort. Both our facilities in Bristol and Melbourne are powered by renewable energy sources. Furthermore, the energy consumption of the Wavegarden technology is so low that we are developing our plans to deliver completely carbon neutral systems with the use of photovoltaic panels on the buildings within a surf park.

In terms of water conservation, at an estimated c. 30,000m³ to 50,000m³ per year, we use less water than three to four holes in a golf course and similar to an Olympic swimming pool.

Finally, all appropriate measures are taken to have the minimum impact on our natural environment while taking the best possible mitigation measures during the design, construction and operational phases of our projects. All of our projects are typically subject to an independent Environmental Impact Assessment to support project approval.

We believe that a Wavegarden Cove is a tremendous asset for any community, delivering positive economic and social benefits and exhibiting the upmost respect for nature and the local environment.

WAIVER

This document is provided for information purposes only in relation to your interest in acquiring Wavegarden equipment and services.

Confidentiality

This document is strictly confidential and contains information that is not publicly available (Confidential Information). The Confidential Information within this document is the property of the Supplier, and by receiving this document you undertake to hold it confidential, and agree not to copy or distribute it in any manner, and to immediately return it at the request of the Supplier.

Severance

If a section of this disclaimer is determined by any court or other competent authority to be unlawful and/or unenforceable, the other sections of this disclaimer continue in effect. If any unlawful and/or unenforceable section would be lawful or enforceable if part of it were deleted, that part will be deemed to be deleted, and the rest of the section will continue in effect.

Exclusion of Liability

No responsibility or obligation of any type on the part of the Supplier or its employees, consultants, directors or external advisors, respectively, is accepted towards the prospective clients, as a consequence of this document, all of which the recipients acknowledge and accept by merely accepting to receive this document. The limitations and exclusions of liability set out in this section and elsewhere in this disclaimer govern all liabilities arising under the disclaimer or in relation to the report, including liabilities arising in contract, in tort (including negligence) and for breach of statutory duty. We will not be liable to you in respect of any losses arising out of any event or events beyond our reasonable control.

The Supplier will not be liable to you in respect of any business losses, including without limitation loss of or damage to profits, income, revenue, use, production, anticipated savings, business, contracts, commercial opportunities or goodwill. The Supplier will not be liable to you in respect of any loss or corruption of any data, database or software. The Supplier will not be liable to you in respect of any special, indirect or consequential loss or damage.

Governing Law

This disclaimer will be governed by and construed in accordance with the laws of Spain, and any disputes relating to this disclaimer will be subject to the exclusive jurisdiction of the courts of San Sebastián (Spain).

Acceptance of Terms

This disclaimer governs the use of this document by you. By receiving this document, you accept this disclaimer in full. If you have received this document in error, please return it immediately to the Supplier.



Appendix 4: South Britannia Video Link



<https://youtu.be/2W8WIEac1gg>

Appendix 5: Wavegarden Benefits Video Link



<https://vimeo.com/503388586>

password: Surfing_is_good_for_you