



Regional Board Report

TO: Regional Board

FROM: Todd Cashin
Director of Community Services

DATE: April 26, 2021

SUBJECT: Floodplain Exemption Application (FEX-20-01),
Development Variance Permit Application (VP-20-03),
Development Permit Application (DP-20-08)
Maloney Construction Ltd. (Owner) c/o Ecoscape Environmental Consultants Ltd.
2223 Westside Road (Central Okanagan West Electoral Area)

Voting Entitlement: *Custom Vote- Electoral Areas, West Kelowna & Kelowna Fringe - 1 Director, 1 Vote*

Purpose: To consider a development proposal adjacent to Okanagan Lake and Westside Road requesting approval of a floodplain exemption, development variance permit, and development permit.

Executive Summary:

The owners of 2223 Westside Road have submitted a development proposal that includes a Floodplain Exemption request, a Development Variance Permit application to reduce the front setback, and a Development Permit application for the construction of a dwelling and associated servicing. The subject property is located adjacent to Okanagan Lake and is bisected by Westside Road. A number of technical reports prepared by qualified professionals have been submitted and the applicant has received the appropriate permits from Provincial agencies.

Since the initial application, Planning staff has communicated non-support of new development activities within the floodplain of Okanagan Lake. Flooding is a serious concern for the Central Okanagan and its developed areas and with the effects of climate change, more flooding is to be expected. Development within the floodplain can have negative impacts on fish and wildlife habitat, drinking water quality, and reduce the ability of natural areas to mitigate and protect against floods. Further, the current proposal is not supported by the Regional Board's Strategic Priorities, the Regional Growth Strategy, or the Rural Westside Official Community Plan.

A number of concerns have been raised regarding the proposal with respect to the request for a reduced setback for the development adjacent to Westside Road and proximity to the lake. At time of writing this report, Planning staff has received four letters of opposition from neighbouring properties.

RECOMMENDATIONS:**Recommendation #1**

THAT Floodplain Exemption Application FEX-20-01 not be approved.

Recommendation #2

THAT Development Variance Permit Application VP-20-03 not be approved.

Recommendation #3

THAT Development Permit Application DP-20-08 not be approved.

Respectfully Submitted:



Todd Cashin, Director of Community Services

Approved for Board's Consideration



Brian Reardon, CAO

Prepared by: Brittany Lange, Environmental Planner

Implications of Recommendation:

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| Strategic Plan: | Not approving the Floodplain Exemption, Development Variance Permit, and Development Permit application complies with the strategic priority "Environment" and the Regional Board's action to reduce development activities within higher risk floodplain areas. |
| Policy/Plans: | <p>Not approving the Floodplain Exemption, Development Variance Permit, and Development Permit application complies with:</p> <ul style="list-style-type: none">• Regional Growth Strategy Bylaw No. 1336• Rural Westside Official Community Plan Bylaw No. 1274• Central Okanagan Lake Foreshore Plan• Climate Projections Report for the Okanagan Region• Regional Floodplain Management Plan |
| Legal/Statutory Authority: | <p>The following Sections of the <i>Local Government Act</i> apply to this proposal:</p> <ul style="list-style-type: none">• Part 14, Section 524 (7) (Requirements in relation to flood plain areas) provides the legislative authority for local governments to exempt a person from a flood plain bylaw provided the local government considers it advisable, the exemption is consistent with Provincial guidelines, and has received a report from a certified person that the land may be used safely for the use intended.• Part 14, Section 498 (Development variance permits) on application by an owner of land, a local government may, by resolution, issue a development variance permit that varies, in respect of the land covered in the permit, the provisions of a bylaw. A development variance permit must not vary the use or density of land from that specified in the bylaw and a local government may not delegate the issuance of a permit. |

- Part 14, Section 488 (Designation of development permit areas) provides the legislative authority for an OCP to designate development permit areas for the protection of the natural environment, its ecosystems and biological diversity, and protection of development from hazardous conditions. The OCP provides the direction and guidelines to be adhered to when considering a development permit.

The following Sections of the *Riparian Areas Protection Regulation* apply to this proposal:

- Section 11 (Undue hardship) provides the protocols for applications for undue hardship where the developable area of the site is less than the allowable footprint for the site due to legally restricted areas.
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Site Context:

The subject property is located in the community of Wilsons Landing adjacent to Okanagan Lake. The area consists of rural residential lots with limited community services and infrastructure. The subject property is bisected by Westside Road with approximately 2.9 acres of the property above Westside Road being quite steep. The remaining approximate 0.3 acres is adjacent to Okanagan Lake and is sloped and narrow, with a width of approximately 29m at the north end and 8.7m at the south. The parcel is affected by Sensitive Aquatic, Sensitive Terrestrial, Hillside, and Wildfire Interface Development Permit Areas under the Rural Westside OCP.

Background:

Currently, the eastern portion of the property is developed with a wooden retaining wall, cement block retaining wall, cement pads, wooden patio/sundeck, and wooden shed. The wooden sundeck is considered an existing non-conforming use and a Notice of Bylaw Contravention (KJ89410) is registered against the properties title. In addition, a small outbuilding and storage of concrete blocks exists on the western portion of the property.

On March 6, 1989, the Regional Board issued a Development Variance Permit (RDCO File: DVP-89-375) for the subject property to reduce the side setback from 3.0m to 0.91m to permit an existing outbuilding (wooden shed).

Modifications along the foreshore of Okanagan Lake fronting the subject property include an existing dock structure, rock retaining wall, and wooden staircase. Further, a Section 11 *Water Sustainability Act* Notification has been approved to install a new four post boat lift for private moorage.

Proposal:

The owner intends to demolish the existing development in order to construct a two-storey dwelling, garage, and deck area (approximately 209m²), as well as a septic system (approximately 125m²). The proposed septic field will have an independent disposal area that will also service the adjacent lot to the north. The total development footprint will not exceed 334m² or approximately 0.08 acres of the 3.3 acre parcel.

In order to consider the proposal, the owners are requesting:

1. To exempt the subject property from Section 3.28 Floodplain Regulations of Zoning Bylaw No. 871 by allowing a reduction of the minimum setback from Okanagan Lake from 15.0 metres (49.2 ft.) to 10.0 metres (32.8 ft.).
2. To vary Section 6.3.4 of Zoning Bylaw No. 871 by allowing a reduction of the minimum front setback from 6.0 m (19.7 ft.) to 2.29 m (7.5 ft.).
3. To obtain a Development Permit for works associated with the construction of a single detached house and septic field as well as associated restoration and enhancement work.

Floodplain Exemptions:

On May 9, 2005, the Regional Board adopted an amendment to Zoning Bylaw No. 871, which increased the floodplain setback from 7.5 metres to 15.0 metres from the natural boundary of Okanagan Lake in accordance with Provincial floodplain regulations. Floodplain regulations have been established for the safety of people and property; the Zoning Bylaw outlines floodplain regulations to address required flood construction levels and floodplain setbacks for lakes, creeks, and other watercourses. For Okanagan Lake, the floodplain setback is a minimum of 15.0 m (49.2 ft) from the natural boundary of the Lake.

Occasionally, there are circumstances where a property owner determines that a building cannot be sited on a property in conformance with the floodplain regulations. An exemption application allows for the consideration of granting an exemption that would change those specific regulations for a given property. The Regional District may exempt types of development from the requirements if the Regional District considers it advisable and that the exemption is consistent with Provincial guidelines or has received a report from a certified person that the land may be used safely for the use intended. If an exemption is granted, a covenant stating the conditions for the exemption is placed on the title of the affected property.

Policy Considerations:

Regional Board Strategic Priorities 2019-2022

The Regional Board has identified and prioritized protection of the environment through various regional plans and actions, including:

- Prioritizing a reduction in new construction in higher risk floodplain areas; and,
- Supporting efforts to reduce our environmental footprint and adapt to climate change.

Regional Growth Strategy (RGS) Bylaw No. 1336

The proposal does not align with direction in the RGS as it relates to the need to respond to the impacts of climate change, manage water resources, and protect the natural environment. Further, Central Okanagan regional partners have agreed to:

- Policy No. 3.2.3.1 “Consider water resources in land use planning decisions”;
- Policy No. 3.2.3.3 “Work with local governments, provincial agencies to assess and mitigate the risks in floodplains”;
- Policy No. 3.2.7.8 “Encourage land use and transportation infrastructure that improves the ability to withstand climate change impacts and natural hazard risks”; and,
- Policy No. 3.2.8.3 “Manage growth to minimize disturbance to habitat, watershed and natural drainage areas and systems”.

Rural Westside Official Community Plan Bylaw No. 1274:

Various objectives and policies on the OCP address a core principle for this unique area which is to retain, protect, and enhance the current rural character. The current proposal does not achieve the following policies and guidelines of the OCP:

Chapter 3 Natural Environment

- Policy No. 3.2.1.2 “Provide and protect vegetated leave areas to water courses, control soil erosion and sediment in run-off water, control the rates of run-off to minimize impacts on the lake, prevent the discharge of deleterious substances into the lake”.

Chapter 13 – Development Permit Areas

- Policy No. 13.1.1 “Development within designated Development Permit Areas will be reviewed by the Regional District in consideration of the objectives and guidelines identified in this Section. Conditions or restrictions may be imposed on the development accordingly”.

Appendix 2 – Aquatic Ecosystem Development Permit Objectives and Design Guidelines

- A leavestrip for the protection and restoration of the riparian ecosystem is to remain undisturbed near watercourses. The intention is that the leavestrip will be untouched by development and left in its natural condition, or, if damaged by previous use or construction, the ecosystem restored or enhanced. Active floodplains require leavestrips that start at the outer edge of the feature.

Central Okanagan Lake Foreshore Plan

The Central Okanagan Lake Foreshore Plan outlines the objectives and policies laid out by the local community and water resource agencies for the management, development, and use of Okanagan Lake shoreline, including:

- When development is proposed adjacent to the foreshore and is situated within a designated floodplain, it shall adhere to Provincial floodplain regulations and to Regional District setbacks and flood elevations.
- Within development areas, shorelines shall be maintained in a predominantly natural state with natural riparian tree cover and ground vegetation.
- Surface drainage shall be managed so as to avoid direct discharge into Okanagan Lake and to maximize stormwater retention.
- Developments shall avoid the use of retaining walls at the water's edge and introduce more natural treatment, including rocks and native riparian plantings set into a stable slope (2:1 maximum).

Environmental Considerations:**Okanagan Climate Projections Report**

The Regional Districts of the Okanagan Valley partnered with the Pacific Climate Impacts Consortium to develop a Climate Projections report for the Okanagan. This report provides the scientific foundation to make informed decisions that support community action and to better prepare for climate variations over the next 30 and 60 years. Wildfire, flooding, and drought have already tested local infrastructure, caused economic losses, and posed health risks to communities.

Based on these changes, there is a need to plan for a greater likelihood of more intense and hotter fires, increasing water shortages, and spring flooding. Findings indicate that the Okanagan can expect significant changes including:

- Warmer temperatures year-round;
- Summers will be considerably hotter;
- Increased duration of growing season;
- Warmer winter temperatures;
- Increased precipitation; and,
- Summer is expected to remain the driest season, and become drier.

The report indicates precipitation increases can be expected across all seasons, except summer. The largest increases in precipitation will take place during the spring and autumn months. This can lead to more frequent flooding and stress to ecosystems and infrastructure.

Regional Floodplain Management Plan

Flooding is a serious concern for the Central Okanagan and its developed areas and will only become more with the effects of climate change. In response to this risk, the three-phase Regional Floodplain Management Plan has been initiated with the purpose of reducing flood risk, improving emergency response, and increasing resiliency to climate change.

Okanagan communities are at increasing risks of damaging floods to properties and infrastructure along the lakeshores and river channels. Following the flood events of 2017 and 2018, these experiences demonstrate that the Central Okanagan is especially vulnerable to flood damage because of the density of population near flood prone creeks and lakeshores.

Riparian Areas Protection Regulation

The Riparian Areas Protection Regulation (RAPR) calls on local governments to protect riparian areas during residential, commercial, and industrial development by ensuring that a Qualified Environmental Professional (QEP) conducts a science-based assessment of proposed activities. The purpose of the regulation is to protect the many and varied features, functions, and conditions that are vital for maintaining stream health and productivity.

Under Section 10 of the RAPR, a proposed development meets the riparian protection standard if the development:

- a) will not occur in the streamside protection and enhancement area, and
- b) in the case of a detailed assessment, will not result in any harmful alteration, disruption or destruction of natural features, functions, and conditions in the streamside protection and enhancement area that support the life processes of protected fish.

The RAPR also provides variance provisions under Section 11 by claiming undue hardship due to legally restricted areas of the site.

Technical Considerations:

In accord with the Development Applications Procedures Bylaw No. 944, the applicant submitted technical reports in accordance with the OCP Development Permit Guidelines as well as the RDCO Terms of Reference for Professional Reports.

Flood Hazard Assessment

A Flood Hazard Assessment was completed by Clarke Geoscience Ltd. that provides comment on the suitability of the proposed building site with respect to the Okanagan Lake flood hazard and provides recommendations to minimize or mitigate flood hazards.

The report indicates that a shoreline rock wall exists at 344m elevation and protects most of the subject property from inundation by floodwaters. During the spring of 2017 still water levels did not reach the top of the shoreline rock wall, however, wave action likely overtopped the walls at times. In addition, portions of the south end of the shoreline are subject to inundation and erosion. Clarke Geoscience has indicated concerns over the long-term integrity of the wall and has provided a number of recommendations and mitigation measures to enhance its protective function including scour protection and planting deep rooted riparian shrubs and trees.

Based on the proposed development and a reduced floodplain setback, there is no requirement to vary the current legislated Flood Construction Level (FCL) at 343.66m as the underside of the floor system for the proposed residence will exceed the FCL. However, approximately 2.5m of fill placement may be required to bring up the grade around the building foundation. The report concludes by noting that, overall, the potential for risk of erosion by waves and storm surge to the toe of the building foundation fill slope is considered to be very low.

Geotechnical Hazard Assessment

A Geotechnical Hazard Assessment was conducted by Beacon Geotechnical Ltd. that identifies geotechnical hazards existing on the site that may impact the proposed development and provides recommendations for construction.

The eastern portion of the property encompasses approximately 0.12 hectares bounded by Okanagan Lake and Westside Road. A number of retaining walls exist on the site including the shoreline rock wall, a masonry wall, and a wooden retaining wall that appears to be failing by decay. Beacon Geotechnical indicates that there is little risk to the proposed house location from landslip, rock fall, or debris. However, it is noted that uncontrolled fill within the building footprint has the potential to cause excessive total and differential settlement and subsurface investigation must be carried out prior to construction.

The report notes the topography of the western portion of the property, approximately 1.18 hectares, slopes upwards at approximately 50% grade. A ravine exists through the middle of the parcel likely created as a drainage relic from the last glacial event in the valley. While no flows exist in the gully, it is likely the preferential drainage for groundwater in the area. No evidence of recent slope instability or rockfall was noted.

Based on the slope stability analysis, development of the western portion of the property will require a significant amount of disturbance to the natural slope through removal of vegetation, excavation, and retaining walls required to achieve a safe slope for construction. Beacon also reviewed the construction of the septic field and advised that construction of the proposed field area would not require a significant amount of grading and impacts to the existing topography would be negligible.

The report concludes that the western portion of the property is considered undevelopable as it has the potential to cause erosion, sloughing, alter natural groundwater flow, and increase the risk of a mass movement event to unacceptable levels. A no build covenant is recommended west of the proposed septic field infrastructure.

Environmental Impact Assessment

An Environmental Impact Assessment (EIA) was conducted by Ecoscape Environmental Consultants Ltd. that summarizes the environmental challenges of the site and considers the Sensitive Aquatic and Sensitive Terrestrial Development Permit guidelines of the OCP. The report also supports the applicant's submission to the Province for Undue Hardship under the Riparian Areas Protection Regulation.

The EIA notes that that eastern portion of the property has minimal developable area due to environmental constraints and proximity to Okanagan Lake. The shoreline adjacent to the subject property is classified as having moderate to high potential for juvenile fish rearing habitat. While development is proposed adjacent to Okanagan Lake, Ecoscape advises that it is generally contained within a previously disturbed area and a restoration plan has been prepared to help offset the reduced setback and mitigate impacts from the proposed development.

The report further notes that the western portion of the property is very steep and provides high value terrestrial and wildlife habitat. While a wildlife survey was not conducted, the area is within the Ungulate Winter Range established for the protection of mule deer. A Provincially red-listed ecosystem community dominates the west side of the subject property and includes ponderosa pine forest, interior Douglas-fir, bluebunch wheatgrass, and arrow-leaved balsam root.

It is Ecoscape's professional opinion that the risks to the terrestrial environment outweigh those to the aquatic environment provided that the proposed restoration plan is implemented. A no build / no disturb environmental covenant is recommended west of the proposed septic field infrastructure.

In association with the Development Permit, monitoring and security (bonding) is required as set out in Bylaw No. 944 (Procedures Bylaw). Ecoscape has estimated the costs associated with the current DP application for environmental monitoring and mitigation plantings (255 shrubs and 35 trees) in the amount of \$18,188.00.

Additional Information:

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| Owner/Applicant: | Maloney Construction Ltd. (Owner) c/o Ecoscape Environmental Consultants Ltd. (Agent) |
| Legal Description: | Lot 2, District Lot 3745, ODYD, Plan 14249 Except Plan KAP47451 |
| Address: | 2223 Westside Road |
| Lot Size: | +/- 3.3 acres (1.33 hectares) |
| Zoning: | RU3 – Rural 3 |
| OCP Designation: | Residential – Low Density Rural Residential |
| Sewage Disposal: | Septic System |
| Water Supply: | Okanagan Lake |
| Existing Use: | Recreational / Vacant |
| Surrounding Uses: | North: Residential / Westside Place South: Residential East: Okanagan Lake West: Westside Road, Rural Residential |
| Fire Protection: | Wilsons Landing Fire Protection Area |

RDCO Technical Comments:

Inspection Services staff advise that, should the Development applications receive approval from the Regional Board, a Building Permit application for the removal of the Notice of Bylaw Contravention on title would be required, including the \$300.00 application fee. Furthermore, a Building Permit would be required for the construction of the single detached house.

Environmental Advisory Commission (EAC) recommends conditional support for the development applications with the following conditions:

- That the proponent works with staff on options for stronger long term protection of the upland area prior to consideration by the Regional Board.

Anecdotal Comments:

- The upland habitat and riparian area are both high value areas. There is a trade-off between protecting the lakeshore and protecting the upland. The Commission noted Concerns over setting an unwanted precedent by recommending approval of floodplain exemptions.
- Concerns over the long term impacts of constraining the floodplain of Okanagan Lake with adjacent development. The Commission has seen similar applications in the past fail to protect remaining natural areas along the lakeshore.
- The Commission wanted assurance for long-term protection of the upland habitat.

Advisory Planning Commission (APC) recommends support for the application as presented.

Agency Referral Comments:**Ministry of Forests, Lands, Natural Resource Operations, and Rural Development:**

Riparian Areas Protection Regulation (RAPR) Branch indicated that the proposal meets the standards of the RAPR. The Registered Professional Engineer has certified that the western portion of the site is unsuitable for developing a dwelling due to safety concerns but that the proposed septic system can be accommodated. The Qualified Environmental Professional has also provided calculations demonstrating that the lot is subject to an undue hardship as a result of this undevelopable area, which satisfies the requirements of Section 11 (3) of the RAPR.

Furthermore, the proposed design anticipates siting of the building to minimize encroachment within the Streamside Protection and Enhancement Area per Section 10 (2) based on variances to the local government setbacks which have not yet been granted. If the design or siting of the building changes as a result of the variance application, an updated RAPR site plan will be required.

Okanagan Shuswap Lands Branch has advised this property has been identified as having a non-authorized foreshore retaining wall. Possible Crown land encroachments within the foreshore of the subject property are currently begin investigated. Ministry staff do not support strengthening of the shoreline rock wall unless all of the structure including the 'toe' is located behind the Present Natural Boundary (PNB). Shoreline erosion protection including shrub and tree planting is required to be located behind the PNB. This work would require a Section 11 *Water Sustainability Act* application for "works in and about a stream".

Ecosystems Branch indicated no concerns with the development as proposed, as long as it complies with the RAPR Assessment report (#6392B) and the terms of the Environmental Assessment prepared by Ecoscape Environmental Consultants Ltd. dated February 26, 2021.

Archaeology Branch note that according to Provincial records, there are no known archaeological sites recorded at the subject property. However, data is not currently available to the Province that describes the potential for previously unidentified archaeological sites to occur in the area. There is always a possibility for previously unidentified archaeological sites to exist on the property.

Ministry of Transportation and Infrastructure has issued a Controlled Access Highway Permit for the proposed access, Provincial Public Highway Setback Permit for the front setback variance, and Provincial Public Highway Construction and Maintenance Permit for the pipeline and sanitary sewer crossing. MOTI staff further indicated that the Floodplain Exemption and Development Permit applications do not fall under the jurisdiction of the Ministry.

Interior Health Authority staff reviewed this application and have no objections from the viewpoint of IHA policies and BC regulations. When a system is located less than 30m from a source of drinking water, IHA usually require a report from a hydrogeologist to support that the system will not cause a health hazard. While it appears to be a challenging system due to the location across Westside Road, this system is located greater than 30m from Okanagan Lake and the Authorized Person has designed it in accordance with standard practice including adequate area for a reserve field in the future.

Unaffected Agencies include City of West Kelowna, City of Kelowna, District of Lake Country, District of Peachland, Westbank First Nation, Fortis B.C., B.C. Hydro, Telus, and Shaw Cable.

Unaffected RDCO Departments include Fire Services, Environmental Services, and Parks Services.

External Implications:

In accord with the *Local Government Act* and the Development Applications Procedures Bylaw No. 944, a Notice of Application sign was posted on the property and written notices were mailed to all registered property owners of land situated within 100 metres of the subject property. A total of 11 letters were mailed to neighbouring property owners.

Further to the notification process, at time of writing this report, no letters of support and four (4) letters of opposition have been received regarding this application.

Alternative Recommendation:

In consideration of the development applications, the Regional Board may approve the applications with conditions, not approve the applications, or defer a decision pending more information or clarification. Should the Board choose not to support the staff position, the following alternate recommendation is provided:

THAT the Regional Board approve Floodplain Exemption Application FEX-20-01 to exempt the subject property from Section 3.28 Floodplain Regulations of Zoning Bylaw No. 871 by allowing a reduction of the minimum setback from Okanagan Lake from 15.0 metres (49.2 ft.) to 10.0 metres (32.8 ft.).

THAT the Regional Board approve Development Variance Permit Application VP-20-03 for Maloney Construction Ltd. (owner), located at 2223 Westside Road to vary Section 6.3.4 of Zoning Bylaw No. 871 by allowing a reduction of the minimum front setback from 6.0 m (19.7 ft.) to 2.29 m (7.5 ft.) to permit the construction of a single family dwelling based on the June 3, 2020 Design Drawings prepared by Mullins Design Group and the February 22, 2021 Site Plan (Figure 4) prepared by Ecoscape Environmental Consultants Ltd.

THAT the Regional Board conditionally approve DP-20-08 and that the DP be subject to the following conditions specified in 'Schedule A':

Schedule 'A'

Adherence to Development Plans:

- No further or variance in construction of, addition to or alteration of a building or structure; or alteration or clearing of land is to occur within the Development Permit Areas as outlined in the Rural Westside Official Community Plan Bylaw No. 1274 without prior notification and approval by RDCO; other than that recognized and approved in this Development Permit.
- No further buildings, structures or improvements of any kind shall be constructed nor located within the 15m setback from the High Water Mark of Okanagan Lake. Any works proposed within the 15m setback may require approvals from the Province in accordance with the *Riparian Areas Protection Regulation*. And further, there shall be no removal or disturbance of any soil, vegetation, or trees (with the exception of weeds) from within the 30 m setback area without first obtaining the written consent of the RDCO.
- Further modifications including changes in and about a stream, construction/alteration of retaining walls, groynes, and substrate modification must not occur at any time without further environmental assessment being conducted and appropriate approvals received from the Province in accordance with the BC *Water Sustainability Act* (Section 11).
- Development Permit (DP-20-08) has been issued exclusively for works associated with the demolition of the existing wooden retaining wall, cement block retaining wall, concrete pads, wooden patio/sundeck, and wooden shed; and construction of a single family dwelling, garage, covered deck, and septic field, as well as associated environmental monitoring and mitigation works.

Professional Reports:

- All construction, land clearing, mitigation, and restoration activities must be completed as per the July 1, 2020 Floodplain Exemption Application Report prepared by Clarke Geoscience Ltd., the January 30, 2021 Geotechnical Hazard Assessment conducted by Beacon Geotechnical Ltd., the February 26, 2021 Environmental Assessment conducted by Ecoscape Environmental Consultants, the June 3, 2020 Design Drawings prepared by Mullins Design Group, the September 17, 2020 Septic System Design Drawings prepared by Franklin Engineering Ltd., and the October 8, 2019 Topographical Site Survey prepared by Runnalls Denby.

Monitoring:

- The land owner shall obtain the services of an Environmental Monitor to ensure the recommendations of the Development Permit are implemented and in accordance with the following schedule and conditions:
 - Pre-construction meeting with the contractor, Engineer, and Environmental Monitor;
 - Submit monitoring reports to RDCO as indicated by the Environmental Monitor;
 - Prepare a substantial completion report and submit to RDCO upon completion of construction and restoration works indicating substantial completion of the conditions and requirements of the Development Permit have been carried out;
 - In the event that greater disturbance occurs due to unforeseen circumstances, the Environmental Monitor will recommend further measures to protect/restore the natural integrity of the site and report on these measures to the RDCO.

Security:

- The applicant shall post a letter of credit or bank draft in the amount of \$18,188.00 in order to ensure completion of works and associated remediation landscaping within 1 year of the issuance of the Development Permit.

- Ninety per cent (90%) of this amount is refundable upon completion of said works and receipt of a substantial completion report signed by a registered professional, and to the satisfaction of Regional District Community Services staff.
- The remainder of the bond shall be held for a minimum of two (2) years (growing seasons) to ensure that the required mitigation has been fully implemented and demonstrated to function (ecologically or as designed). The maintenance bond may be held for longer periods if, throughout the initial 2-year period the persistent failure of the works is documented.

Further Conditions or Restrictions:

- The landowner/applicant must apply for and receive a building permit for the proposed works as well as an application for the removal of the Notice of Bylaw Contravention on title to the satisfaction of the RDCO Building Inspection Services.
- A Registered Professional Engineer must be retained at time of site preparation and subsurface investigation, excavation, and subgrade works to ensure that the structural considerations of soil, including slope stability, site drainage, and erosion and sediment control will be supervised and approved by the Engineer.
- The building footprint and riparian setback area must be surveyed, staked, and clearly delineated to prevent encroachment.
- Prior to any disturbance on site, the contractor is required to install silt fencing around the development footprint adjacent to the 10m riparian setback area to prevent encroachment and to provide erosion and sediment control.
- Construction debris and materials must not be stored or deposited within the riparian setback and must be removed from the property on a regular basis.
- A Site Survey / Building Location Certificate is required to be submitted to the RDCO at time of footings and foundation.
- Best Management Practices are to be used as a means to protect the riparian area of Okanagan Lake.
- Registration of a restrictive (Floodplain) covenant under Section 219 of the Land Title Act identifying that there has been an indication of flood concern relating to the development of the lands as set forth in a report prepared by Clarke Geoscience Ltd., dated July 1, 2020.
- Registration of a restrictive no-build / no-disturb (Geotechnical) covenant under Section 219 of the Land Title Act identifying that there has been an indication of geotechnical concern relating to the development of the lands as set forth in a report prepared by Beacon Geotechnical Ltd., dated January 30, 2021 and February 23, 2021.
- Registration of a restrictive (Environmental) covenant under Section 219 of the Land Title Act identifying that there has been an indication of environmental concern relating to the development of the lands as set forth in a report prepared Ecoscape Environmental Consultants Ltd., dated February 2021. The development of the lands shall be in strict accordance with the recommendations contained within the environmental report.
- A detailed and formal landscape plan must be prepared by a qualified professional and submitted to and approved by the RDCO prior to commencement of any landscape works.
- Should clearing activities be required during the identified avian nesting period (March 31 – August 15), pre-clearing surveys must be conducted by the EM to identify active nests and other critical habitat features. Clearing and other construction activities must be conducted within 72 hours following the completion of the pre-clearing nest surveys. Additional buffers and no-disturbance zones may be required at this time.
- In accordance with the RDCO Noxious Weed Control Bylaw No. 179, the owner or occupier of the land shall prevent the infestation of noxious weeds and cut down or otherwise destroy

and mulch or remove all noxious weeds and plant with native grasses or other native vegetation.

Considerations not applicable to this report:

- *Financial*
- *Organizational*

Attachment(s):

- Orthophoto & Subject Property Maps
- Site Images
- Site Plan
- Technical Reports
- Support / Opposition Map
- Letters of Opposition