



COUNCIL REPORT

To: Mayor and Council

Date: April 18, 2023

From: Paul Gipps, CAO

File No: FEX 22-01

Subject: **FEX 22-01, Floodplain Exemption, 3320 Turnbull Road**

Report Prepared By: Cam Graham

RECOMMENDATION to Consider and Resolve:

THAT Council approve the Floodplain Exemption for 3320 Turnbull Road and allow an exemption to s.3.28.2 (a) ii. of the Zoning Bylaw to remove the 1.5m vertical setback requirement above a stream; and

THAT Council direct staff to amend the Floodplain Covenant KM029182 on title to remove Section (b) the 1.5m vertical setback requirement above a stream.

STRATEGIC AREA(S) OF FOCUS

Economic Growth and Prosperity

BACKGROUND

The applicant applied for a Building Permit for a single detached dwelling and garage, and a permit was issued on July 7th, 2022. The applicant changed his building design after the issuance of the Building Permit and did not alert the Building Department. Through the review process, it was confirmed by a surveyor that the footing elevations are below the 1.5 m vertical separation from the adjacent stream. The owner decided to increase the foundation wall height rather than raise the footing. This change has left the owner with a basement that is below the 1.5 m vertical setback. These changes conflicted with the vertical setback of a floodplain covenant on title. Planning staff made the applicant aware he needed to apply for a Floodplain Exemption Permit (FEX) to address the conflict with the covenant and the Zoning Bylaw requirement on July 13th, 2022. The applicant did not apply for an amendment to the Building Permit and was flagged during an inspection on August 24th. The applicant applied to amend the Building Permit and applied for a FEX on December 20th, 2022.

PROPERTY DETAILS

Address	3320 Turnbull Road		
PID	024-110-159		
Folio	36414641.803		
Lot Size	7.31 Acres		
Owner	John Stremel	Agent	John Stremel
Current Zoning	RU3 – Rural Residential Medium Parcel	Proposed Zoning	-
Current OCP	RR – Rural Residential	Proposed OCP	-
Current Use	Vacant	Proposed Use	Single Family Dwelling
Development Permit Areas	Aquatic, Hillside		
Hazards	N/A		
Agricultural Land Reserve	No		

ADJACENT ZONING & LAND USES

North	^	RU2 – Rural Residential Small Parcel Zone
East	>	RU4 – Rural Residential Large Parcel Zone
West	<	RU2 – Rural Residential Small Parcel Zone
South	v	RU3 – Rural Residential Medium Parcel Zone

NEIGHBOURHOOD MAP



PROPERTY MAP



DISCUSSION

Proposal

The applicant is applying for a Floodplain Exemption Permit to remove the 1.5m vertical setback requirement from the Floodplain Regulations in the Zoning Bylaw and amend an existing covenant on title to finish construction and meet permitting requirements.

Policy and Bylaw Review

Official Community Plan No.0100

The subject property has a Land Use Designation (LUD) of Rural Residential. The subject property does have an Aquatic Development Permit Area on the property. Based on the 17.6m setback from the dwelling and the stream, the dwelling construction does not trigger the need for an Aquatic DP.

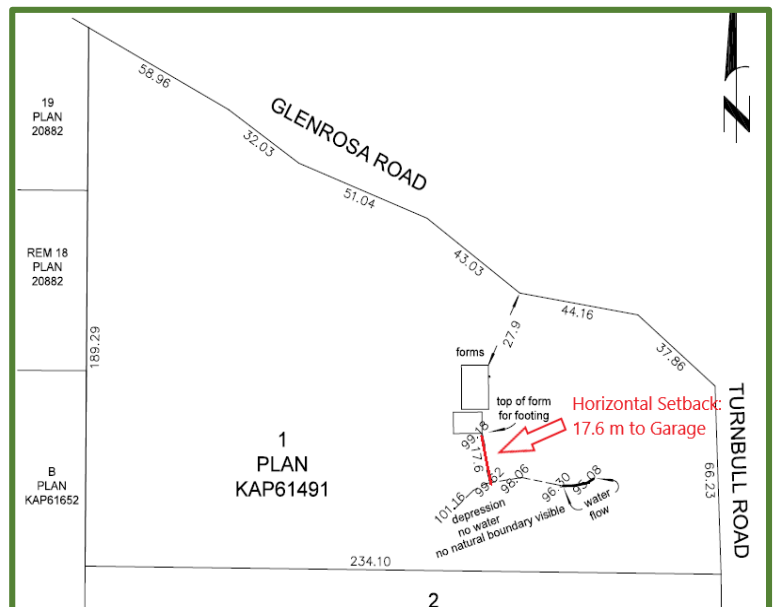


Figure 1: Horizontal Setback from Unnamed

Zoning Bylaw No.0265

The proposal meets all Zoning Bylaw regulations in regards to siting, maximum parcel coverage, maximum height, etc. There are two key regulations that regular impact flood construction levels adjacent to streams:

1. The underside of any floor system, and top of any pad supporting any space or room that is used for dwelling purposes, business, or the storage of goods which are susceptible to damage by floodwater, shall meet the following flood construction levels:
 - 1.5 m (4.9 ft) above the natural boundary of any stream.
2. Any landfill or structural support required to elevate a floor system or pad to achieve the flood construction levels specified in Section 3.28.2 shall be sited at least:
 - 15.0 m (49.2 ft) from the natural boundary of any stream;

The dwelling complies with the 15 m (49.2ft) minimum siting distance from a stream that is included in the Floodplain Regulations. The proposal does not meet the 1.5 m (4.9 ft) vertical setback above the natural boundary of any stream.

Covenant KM029182

As part of the original subdivision application, a floodplain covenant was registered on title. That is a typical requirement to ensure future owners are aware of the limitations associated with floodplain requirements. Similar to the City's Zoning Bylaw, the covenant includes the following conditions:

- a) that no structure shall be constructed, reconstructed, moved, extended, or located within 15 m of the natural boundary of the unnamed watercourse crossing the property; and
- b) no area used for habitation, business, or storage of goods damageable by floodwaters shall be located within any structure at an elevation such that the underside of any floor system is less than 1.5 m above the natural boundary of the unnamed watercourse crossing the property. The ground level or top of the concrete or asphalt pad on which it is located shall be no lower than the described elevation.

Technical Review

Flood Hazard Assessment

The purpose of the covenant on title and the City's Floodplain Regulations is to mitigate flooding risk to proposed structures. The requirements in these documents are standard values and are not based on a specific hydrology assessment of a stream.

As part of the FEX process, an engineer specializing in groundwater hydrology is required to completed a site-specific assessment of the property. Water's Edge Engineering Ltd. has completed an assessment of the dwelling and the unnamed stream (Attachment 1).

They have determined that the stream is an ephemeral, snow melt and rainfall-fed stream. The channel slope is significantly high, and Water's Edge have identified that no ponding would be expected along the channel bed through the property. This is evidenced by the lack of a visible floodplain.

Based on this assessment, Water's Edge Engineering Ltd. support the FEX to the City's Zoning Bylaw and recommend that the covenant be amended to remove the vertical setback requirement and only reference a 15m horizontal setback distance from the Natural Boundary of the unnamed stream. They have determined that horizontal setback is sufficient to mitigate the flood hazard at the subject property.

Glenrosa Lake Dam (Ficke's Pond) Flood Potential

Water's Edge Engineering Ltd. also provided comments regarding the Glenrosa Lake Dam and have stated that Glenrosa Lake Dam appears to be located upstream from the subject site. A desktop study showed that the dam was originally created by grading a berm along Glenrosa Road (the north end of the pond). This berm has the lowest bank elevation indicating the natural drainage route from the dam would be the ditches along Glenrosa road and any watercourse they converge with. The watercourse on the subject property has a confluence with the Glenrosa Road ditch downstream of the property and there are no locations where a flood flow would have access to the subject property. This assessment shows that there is a negligible flood risk from the Glenrosa Lake Dam.



Figure 2: Glenrosa Lake Dam

CONCLUSION

The Flood Hazard Assessment recommends an exemption to the 1.5m vertical setback requirement based on the site-specific hydrology of the site and the lack of risk from the Glenrosa Lake Dam. Staff recommend that Council approve the Floodplain Exemption Permit to s.3.28.2 the vertical setback distance from a stream and amend the covenant on title to remove the vertical setback requirement.

ALTERNATE RECOMMENDATION to Consider and Resolve:

THAT Council deny the Floodplain Exemption (FEX 22-01) to Section 3.28.2 (a) ii. (flood construction levels) of Zoning Bylaw No.0265 for a single-family dwelling on 3320 Turnbull Road.

REVIEWED BY

Chris Oliver, Planning Supervisor

Brent Magnan, Director of Development Approvals

APPROVED FOR THE AGENDA BY

Paul Gipps, CAO

Powerpoint: Yes No

Attachments:

1. Floodplain Exemption Permit, 3320 Turnbull Road (FEX 22-01)