

Top-of-Bank

A zoning option regarding development proximate to Edmonton's Top-of-bank.

Recommendation:

That the December 7, 2015, Sustainable Development report CR_2447, be received for information.

Report Summary

This report outlines the existing approach to the zoning of development in proximity to areas adjacent to Top-of-Bank and a revised approach as a zoning option for use in Top-of-Bank areas.

Previous Council/Committee Action

At the November 2, 2015, Agenda Review Committee meeting, the Sustainable Development report CR_2447 was postponed to the December 7, 2015, Special Executive Committee meeting.

At the April 28, 2015, City Council meeting, the following motion was passed:

That Administration provide a report to Executive Committee with possible amendments to the Zoning Bylaw, regarding development proximate to the Top-of-Bank.

Report

Background

Edmonton's River Valley and Ravine System consists of the North Saskatchewan River Valley and smaller tributaries and ravines, such as Mill Creek, Blackmud Creek, and Whitemud Creek. The River Valley and Ravine System is a geologically active area that is prone to landslides, slumping, and erosion. Presently there are approximately 24,074 properties in Edmonton that are within a 65 metre radius of the Top-of-Bank, with 3,278 of these properties at the Top-of-Bank.

Existing City Policy and Regulatory Framework for Top-of-Bank Development

City Policy C542, *Development Setbacks from River Valley/Ravine Crests*, directs development at the Top-of-Bank and serves to protect Edmonton's River Valley and Ravine System. This is achieved through the establishment of an urban development line and building setback line, which establishes the minimum setbacks for development. These minimum setbacks are determined through a geotechnical engineering assessment and are based on the concept of an estimated long-term line of stability. Proposals to rezone or subdivide Top-of-Bank properties require the applicant to obtain the geotechnical assessment report. The City's Geotechnical Engineer

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reviews the submitted geotechnical assessment and provides technical advice to the Development Authority. The final geotechnical recommendations for development restrictions are then translated into a Restrictive Covenant Agreement that is registered on title prior to Edmonton City Council approving the rezoning or prior to the endorsement of subdivision by the Chief Subdivision Officer.

It is important to note that many mature and established areas of the city were developed prior to the introduction of this risk mitigation approach and, therefore, do not have geotechnical assessment reports completed or restrictive covenants placed on the individual titles.

At the development permit stage, the Development Officer has the authority to require further reporting on the status of the slope and soil conditions at the Top-of-Bank to inform decisions about new developments (Section 14.1 of Zoning Bylaw), for properties that do not have a restrictive covenant or a completed geotechnical assessment report. By requiring the geotechnical assessment, the Development Authority, with the advice of the City's Geotechnical Engineer, can impose development permit conditions that align with the report's recommendations. A development permit condition cannot require a restrictive covenant be registered on title. However, the development permit conditions can align with the report's recommendations.

Approach in Other Alberta Municipalities

The City of Red Deer, located on the Red Deer River, addresses development proposals on sensitive lands in their land use bylaw as a component of the development permit application and development permit conditions stages. The regulations require a professional engineer to provide a geotechnical study for the site and a post-construction certificate confirming that the development has been constructed in accordance with the recommendations of the geotechnical study. In addition, Red Deer has established policies within their intermunicipal and municipal development plans as well as within the City's River Valley and Tributaries Park Concept Plan. These policies require the dedication of environmental reserve for lands considered unsuitable for development. The Concept Plan establishes development buffers adjacent to the Plan's natural features, the Red Deer River (100 meter buffer), tributaries (60 meter buffer) and associated lakes, sloughs and wetlands (60 meter buffer).

The City of Lethbridge, situated on the Old Man River Valley, adopts a similar approach in that the River Valley Area Redevelopment Plan describes specific setback policies for development. In addition to this, the City has a low density residential zone that is employed for environmentally-sensitive sites and contains additional development regulations requiring a comprehensive siting plan to address the special environmental requirements of the site, including any alterations to the grade of a parcel, the direction of surface grade and how surface water run-off will be addressed. This zone is typically applied to the Top-of-Bank areas of the city, but is not widely used.

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The City of Fort Saskatchewan, located on the North Saskatchewan River, has an established subdivision, rezoning, and development permit process that requires the submission of geotechnical reports prior to approval from the development authority. Like Edmonton's process, Fort Saskatchewan uses the results of these studies to inform development conditions and setbacks and to impose conditions necessary to mitigate any impacts a development may have and can require a restrictive covenant to be registered on title or any other environmental protection tool for the protection of land pursuant to the provisions of the *Municipal Government Act*.

Possible Approach – Create a New Low Density Residential Zone for Top-of-Bank Properties

A possible amendment is creating a new low density residential zone for Top-of-Bank properties. A conceptual description of the new zone is included in Attachment 1 - Conceptual Description of Top-of-Bank Zone. This option would trigger the requirement for a geotechnical study and the associated restrictive covenant. In order to foster the use of this new zone and offset the cost of a geotechnical report, exploring the inclusion of incentives within the zone may be considered; such as increasing allowable height, site coverage, reducing setbacks or preserving existing lot widths (restricting subdivisions).

Landowners interested in applying to rezone their properties would be required to coordinate with adjacent property owners (recommend the entire block or blocks) and make a joint land development application to the City. Landowners would be required to provide a geotechnical assessment report and register restrictive covenants which prohibits development occurring beyond the recommended building setback line as well as other activities that could impact the integrity of the River Valley and Ravine System slopes.

Further consultation and analysis of the proposed incentives versus the costs associated with rezoning and preparing geotechnical studies may be required to accurately determine whether there is an interest for this type of zoning option.

Conclusion

The current City Policy and regulatory framework remain a feasible approach to obtaining restrictive covenants and the appropriate development setbacks at the Top-of-Bank for new developments and for redevelopments in existing mature and established areas. However, there may be value in further exploring the potential for a new Top-of-Bank zone to apply in mature and established areas that are unlikely to see significant redevelopment. If Executive Committee would like Administration to develop a new zone for Top-of-Bank application, similar to that described in Attachment 1 - Conceptual Description of Top-of-Bank Zone, it should direct Administration to return to a future Executive Committee meeting with a draft zone.

Policy

The Way We Grow, Municipal Development Plan, Bylaw 15100

- Objective 7.1.1 – Protect, preserve and enhance a system of conserved natural areas within a functioning and interconnected ecological network
- Objective 7.3.1 – Protect, preserve and enhance the North Saskatchewan River Valley and Ravine System as Edmonton's greatest natural asset
- Objective 7.3.3 – Mitigate the impact of development upon the natural functions and character of the North Saskatchewan River Valley and Ravine System

Public Consultation

This report was circulated internally on September 10, 2015. Comments from other City departments were collected and feedback was included within the report.

Attachments

1. Conceptual Description of Top-of-Bank Zone

Others Reviewing this Report

- K. Rozmahel, General Manager, Corporate Services
- D. Wandzura, General Manager, Transportation Services
- R. Smyth, Acting General Manager, Community Services