



TA19-0009

Landscaping & Screening – Fencing and Retaining Walls

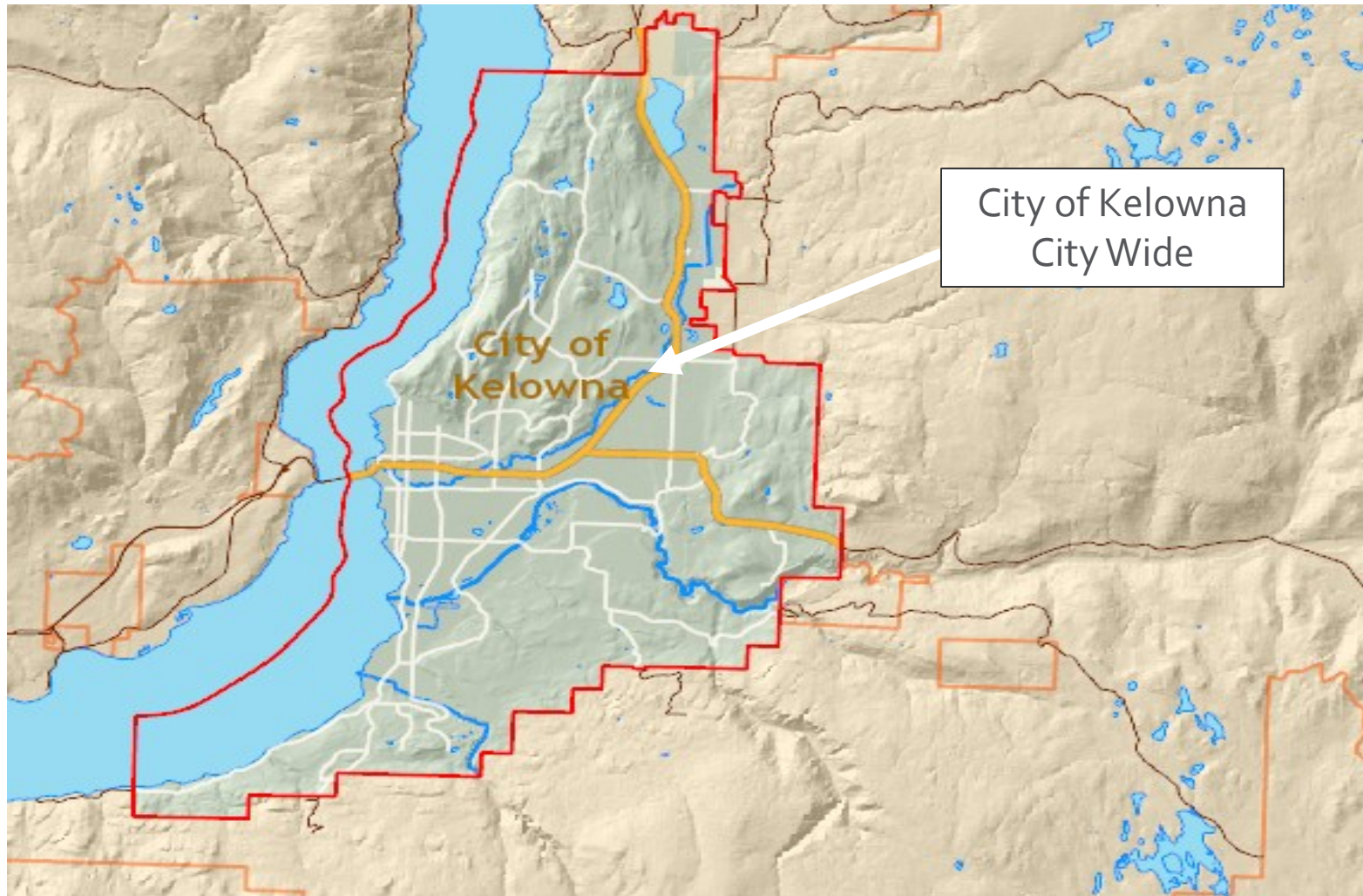
Zoning Bylaw Update



Purpose

- ▶ To amend Zoning Bylaw regulations for retaining walls and slopes in Section 7 - Landscape and Screening of Zoning Bylaw No. 8000.

Context Map



City of Kelowna

Objectives

- ▶ To increase the integrity of retaining walls and slopes
- ▶ To increase safety of retaining soil
- ▶ To achieve the expected design life of the retaining structure
- ▶ Apply to all property types including agricultural, comprehensive development zones, residential, commercial, industrial, public and institutional and hospital district zones.

Proposed Amendments

Section 7 .5.9 – Landscaping and Screening – Fencing and Retaining Walls

- ▶ Retaining walls on all **lots**, except those required as a condition of **subdivision** approval, must not exceed a **height** of 1.2m measured from **natural grade** on the lower side, and must be constructed so that any **retaining walls** are spaced to provide a 1.2m horizontal separation between tiers. The maximum number of tiers is two with a maximum total **height** of 2.4m. Any multi-tier structure more than 2 tiers must be designed and constructed under the direction of a qualified professional engineer.

Proposed Amendments

Section 7 .5.14 – Landscaping and Screening – Fencing and Retaining Walls

- ▶ A modified slope which has a finished slope greater than 1:2 (50%) and an elevation change greater than 1.2m must be installed under the direction of a qualified professional engineer.

Proposed Amendments

Section 7 .5.15 – Landscaping and Screening – Fencing and Retaining Walls

- ▶ An exposed natural rock surface on a lot that has the potential for materials to displace causing a hazardous condition, must be reviewed by a qualified professional engineer with the appropriate and measures undertaken as prescribed by the engineer.

Proposed Amendments

Section 7 .5.16 – Landscaping and Screening – Fencing and Retaining Walls

- ▶ As per the Engineers and Geoscientists BC's Quality Management Guidelines all **retaining walls** including but not limited to, gravity, piling, cantilever, anchored, mechanically stabilized earth (MSE), and geosynthetic reinforced soil (GRS) walls when over 3.0m high or deemed high risk are included in the requirement to have documented independent reviews conducted by a qualified professional, as **retaining walls** fulfill the important structural function of safely retaining soil.

Supporting Policy

- ▶ OCP Chapter 14: Urban Design Development Permit Areas
- ▶ Hillside Guidelines
 - ▶ Promote development that respects the terrain, vegetation, drainage courses and constraints related to the hillside environment of the site;
- ▶ Hillside Development Guidelines
 - ▶ Site grading and retaining walls respect existing terrain; that is, large cuts/fills are not used to create 'build-able lots' or flat yards. Driveway grades follow the natural terrain, large single level building platforms are avoided, final lot grades mimic the natural slope and slopes are promptly re-vegetated;

Staff Recommendation

- ▶ Staff are recommending support for the new regulations for retaining walls and slopes in Kelowna. The regulations aim to increase the integrity of retaining walls and slopes, increase safety of retaining soil and to achieve the expected design life of the retaining structure.



Conclusion of Staff Remarks