

## **VILLAGE OF ZEBALLOS**

### **BYLAW No. 345**

#### **A bylaw to amend the Official Community Plan of the Village of Zeballos being Bylaw No. 330**

WHEREAS the Council of the Village of Zeballos wishes to provide a safe, happy, and healthy municipality for the men, women, and children that live work and play within its boundaries;

AND WHEREAS the Council has determined that certain properties within the Village boundaries are subject to varying degrees of risk from rockfall and rock avalanche hazard:

In order to ensure that its citizens (present and future) are aware of these rockfall and rock avalanche hazards, the Council of the Village of Zeballos, in open meeting assembled, enacts as follows:

#### **Part A Title**

1. This Bylaw may be cited as "Village of Zeballos Official Community Plan Bylaw #330, 1996, Amendment Bylaw No. 1"

#### **Part B Map Amendment**

1. Part 1.0 "Schedules" is amended by the addition of Map Schedule A-2 "Development Permit Area" which is attached as Schedule "A" of this Bylaw.
2. Part 1.0 "Schedules" is amended by the addition of Map Schedule A-3 "Probability of Risk Areas" which is attached as Schedule "B" of this Bylaw.

#### **Part C Text Amendments**

1. Part 1.0 "Schedules" is amended by the addition of:
  - a) Schedule C-1 "Table 1 Excluded Activities and Actions" and Table 2 "Probability of Occurrence for Rockfall" which is attached as Schedule "C" of this Bylaw.
  - b) Schedule C-2 "Application for a Development Permit" which is attached as Schedule "D" of this Bylaw.
  - c) Schedule C-3 "Application for a Development Permit" which is attached as Schedule "E" of this Bylaw.
  - d) Schedule C-4 "Development Permit" which is attached as Schedule "F" of this Bylaw.
  - e) Schedule C-5 "Fee Schedule" which is attached as Schedule "G" of this Bylaw.

2. Section 2.10 "Hazard Lands" is amended by deleting subsection 2.10.3 and substituting the following policies:
- "2.10.3 The existing forest cover on the talus slopes provides considerable protection, as natural dissipaters, to downslope structures from rockfall hazard and should be maintained.
  - 2.10.4 Mitigative measures, such as slope stabilization, protective structures, monitoring/warning systems, and/or hazard avoidance, as suggested in the Golder Report (1997), shall be investigated.
  - 2.10.5 Investigation of the potential for relocation of existing habitable dwellings within the rockfall hazard area greater than 1:500 shall be investigated.
  - 2.10.6 Development shall be approved as allowed pursuant to Table 2 of this Bylaw. (beyond that listed in Schedule C, Table 1 "Excluded Activities and Actions".)
  - 2.10.7 To carry out a Risk Assessment to determine the probability of risk within the area to the north of the school site properties, east of Zeballos River to the northern boundary of the Village.

3. Section 2.14 "Land Use Designations" is amended by the addition of the following:

- a) Paragraph 1 is deleted in its entirety and replaced by the following:

"Land Use Designations have been broken up in six (6) groups, Village Mix, Water-based Commercial/Industrial, Land-based Industrial, Tourist, Parks, Environmentally Sensitive Area, and Hazard Lands."

4. Section 2.14 "Land Use Designations" is amended by the addition of the following:

**2.14.7 Development Controls - Hazardous Areas**

**Development Permit Area No. 1: Rockfall Hazard**

- a) **Category:** Natural Hazard Condition
- b) **Extent of DPA:** Development Permit Area No. 1, as shown on Map Schedule A-2, includes that portion of the Village of Zeballos east of the Zeballos River.
- c) **Justification:** The Development Permit area includes talus slopes, bedrock areas, and slough areas. Increases in the risk of rockfall hazard can be produced by natural and man-made process acting on the mountain slopes above the Village. Man-made processes such as timber harvesting and land development (disturbance of the soil) can cause lost of protective vegetative cover or destabilize upslope blocks of rock existing on the mountain slopes above the Village. (Golder Associates, 1997)

**d) Estimated  
Probability of  
Occurrence:**

Rock avalanches are large rock failures characterized by sliding or mass flow of the failing mass versus rockfall which is independent movement of rock fragments. The hazard to the Village from a rock avalanche is low with a probability of occurrence of less of 1:10,000.

Several blocks of rock containing open tension cracks were observed on the bedrock slopes above the Village and are considered marginally stable. Evidence of geologically recent rockfall activity is located mostly in local topographic "draws" around seasonal streams. It can be expected that rockfall of such severity as would fall beyond the toe of the talus (rock debris) slope, can be expected to occur within the next 20 years. (Golder Associates, 1997)

**e) Guidelines:**

Prior to any disturbance of any land surface or removal of any vegetation, users of property within the Development Permit Area will contact the Superintendent of Public Works at the Village offices to determine if a Development Permit is required. Criteria for exemptions are listed in Schedule C Table 1 entitled "Excluded Activities and Actions". Schedule C Table 2 outlines the conditions of approval for a Development Permit.

**Required information when a Geotechnical Report is required:**

Where a geotechnical report is required by proposed development in accordance with Schedule C Table. The report will be carried out by a Registered Professional with specific experience in geotechnical engineering and/or engineering geology.

The impact of the proposed works should be addressed by a site specific investigation and the report should address the following:

- i) The potential for soil and rock slope instability, including the probability of risk of rockfall, supported by accurate field determination of the top of the talus, the toe of the talus location or other geological features in relation to the subject property. Site plans and slope profiles shall be provided.
- ii) Recommendations and restrictions on excavation, blasting and/or filling during development.
- iii) Possible building envelopes of the site, considering the risk probability factors.
- iv) Evidence of slope conditions that indicate an imminent rockfall hazard.

instability.

- vi) The areas of vegetation to be maintained on soil slopes and within the setback zone above the slopes to minimize erosion; any necessity for selective scaling, rock bolting and tree removal to improve stability conditions in areas of bedrock.

**Part D     Adoption**

<b>READ A FIRST AND SECOND TIME THIS</b>	<b>15TH DAY OF APRIL</b>	<b>1997.</b>
<b>PUBLIC HEARING HELD THIS</b>	<b>13TH DAY OF MAY</b>	<b>1997</b>
<b>AND</b>	<b>26<sup>TH</sup> DAY OF NOVEMBER</b>	<b>1997</b>
<b>READ A THIRD TIME THIS</b>	<b>16TH DAY OF DECEMBER</b>	<b>1997.</b>
<b>RECONSIDERED,</b>		
<b>FINALLY PASSED AND ADOPTED THIS</b>	<b>06TH DAY OF JANUARY</b>	<b>1998.</b>

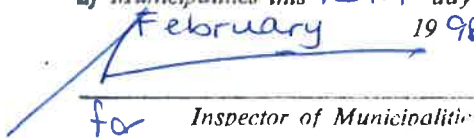
  
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Mayor

  
\_\_\_\_\_  
Clerk

I hereby certify the foregoing to be a true and correct copy of Bylaw No. 345, being the "Village of Zeballos Official Community Plan Bylaw #330, 1996, Amendment Bylaw No. 1" as adopted by the Council of the Village of Zeballos on the 06th day of January 1998.

  
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Clerk

*A true copy of By-law No. 345  
registered in the office of the Inspector  
of Municipalities this 12th day of  
February 1998.*

  
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for Inspector of Municipalities