

# Byron Shire Development Control Plan 2014

Chapter B14 Excavation and Fill



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# **Chapter B14 – Excavation and Fill**

# **Contents**

. 5
.5
.5
.5
.5
.7
.7
8.
8.



#### **Document History**

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#### **B14.1** Introduction

### B14.1.1 Purpose of this Chapter

The purpose of this Chapter is to limit and control the extent of excavation and fill within development projects for aesthetic, character, engineering and geotechnical reasons, and to promote the appropriate use of earthworks for thermal sustainability and insulation.

#### B14.1.2 Aims of this Chapter

- 1. To ensure that development applications for **earthworks** address aesthetics, character, engineering and geotechnical factors.
- To ensure that the character, bulk and scale of development remain compatible with the unique environment that has been created by the area's natural features and its historical built character.
- 3. To control the extent of **earthworks**, so that the bulk, scale and appearance of development remain compatible with the character and visual amenity of the Shire's towns, villages, rural areas and natural landscapes.
- 4. To promote the appropriate use of well designed **earthworks** to achieve compatible and positive design outcomes in terms of improved landscapes, streetscapes, thermal sustainability and insulation in buildings and developments.
- 5. To prevent cumulative deterioration in the attractiveness of the Shire's built environment as a result of large scale **earthworks**, buildings and structures that by themselves may not appear highly significant, but that collectively and progressively contribute to reduced character and appeal.
- 6. To minimise the need for extensive engineering works required to support and manage large scale earthworks.
- 7. To minimise risks of geotechnical instability, landslip and surface movement associated with development in the Shire.

# **B14.1.3** Application of this Chapter

This Chapter applies to all **earthworks** that require development consent on land to which Byron LEP 2014 applies.

## B14.2 Excavation and Fill in all Zones

#### **Objectives**

1. To ensure that towns, villages, commercial, industrial, residential and rural areas maintain overall compatibility with the Shire's natural features and its historical built character.



- 2. To control the extent, character, bulk and scale of **earthworks** so that both individual and cumulative earthworks over time do not detract from the existing and desired future character of their immediate locality, and the surrounding area.
- 3. To promote the use of **earthworks** to create landscapes and streetscapes that make a positive contribution to the existing and desired future character of their immediate locality and the surrounding area.

#### **Performance Criteria**

- Development proposals must demonstrate that proposed earthworks will be compatible with the low rise, low to medium density form, scale and desired future character of their locality and immediate surrounds. Proposals must demonstrate that excavation and fill will be limited to ensure that:
  - Adverse visual impacts, bulk and scale of both the proposed earthworks and the resultant overall development are minimised;
  - b) Overshadowing of adjoining private and public land is avoided;
  - The scale and character of the resultant landform and buildings will remain compatible with their surrounds and with the desired future character of the locality;
  - Resultant drainage characteristics and systems both on the site and in the locality will be consistent with Chapter B3 Services and with Water Sensitive Urban Design Principles.
  - e) The need for engineering and support works is minimised;
  - f) Risk of geotechnical instability and/ or landslip is minimised.
- 2. Where **earthworks** are designed to facilitate and/ or improve thermal sustainability and insulation in buildings and developments rather than as structural or landscape elements, development proposals must demonstrate the particular benefits to be gained from those **earthworks**.
- 3. **Earthworks** must be designed to ensure that the community /pedestrian scale and character of commercial areas will be retained and reinforced.
- 4. Where filling is proposed to mitigate flooding and stormwater issues, details are to be submitted with the application demonstrating the fill will not have a significant adverse impact on the flow characteristics of flood waters or detrimentally increase the level of flooding or stormwater on other properties or development.
- 5. Lots that are identified as having stability problems either on Council's GIS mapping or through the development assessment process (slopes greater than 15 degrees, land that has historically been used for uncontrolled filling, or land that is constrained by springs or wet areas etc.) are to adequately address geotechnical constraints through the submission of a detailed geotechnical report prepared by a suitably qualified professional.

The development application shall also incorporate preliminary design detail for footings, driveways and storm water management to demonstrate how the risk is adequately managed. In certain circumstances the geotechnical constraints will prevent properties from being developed for infill development and applications will not be approved.



#### **Prescriptive Measures**

 Unless otherwise stated below, excavation and filling must be limited to a depth of 1 metre. See Figure B14.1.

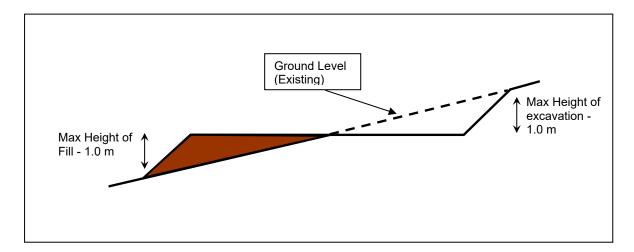


Figure B14.1 – General Excavation and Fill Requirements

2. The maximum excavation restriction is not applicable where the excavation is incorporated into the dwelling structure to satisfy minimum car parking requirements up to a maximum height of 2 metres. For details see Figure B14.2.

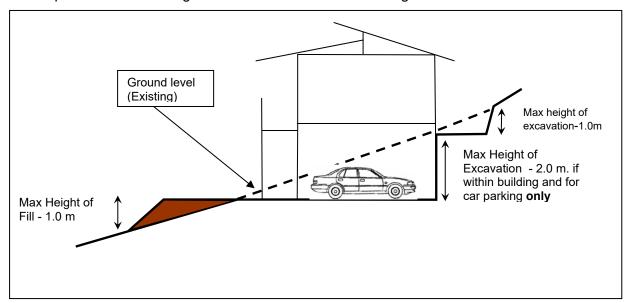


Figure B14.2 – Excavation and Fill for Car Parking

- 3. Batters and cuttings to be landscaped with appropriate native shrubs and ground covers to prevent erosion and not left exposed to the elements. Stripped top soil to be stockpiled on site and used to top dress disturbed areas
- 4. Where **earthworks** are proposed for swimming pools, the **earthworks** to have a maximum depth of no more than 2 metres. Where swimming pools are partially benched into the side of a hill to create an infinity edge or similar, the pool to extend no more than 1 metre out of the ground. For details see Figures B14.3 and B14.4.



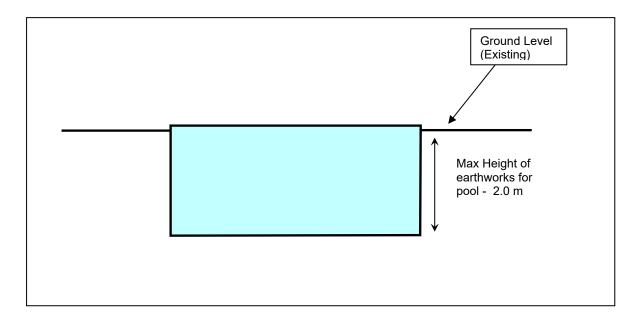


Figure B14.3 – Pool on level land

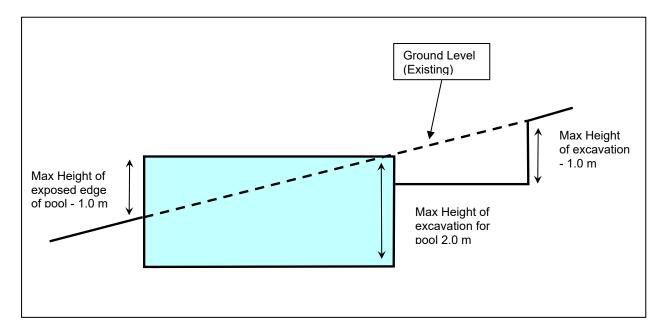


Figure B14.4 - Pool on sloping land

- 5. Where pools are to be located on sloping land or on land considered by Council as geotechnically constrained, appropriate geotechnical investigations to be carried out by a suitably qualified engineer. Details to be submitted with the development application demonstrating that the site is suitable for the proposed pool.
- 6. Where in-ground water tanks and effluent disposal systems are proposed, there are no specific restrictions limiting the depth of earthworks. Where required details on geotechnical and acid sulfate soils constraints to be submitted with the development application.
- 7. Basement car parks Any development application that seeks consent for a basement car park will need to have regard to the provisions contained within Chapter B4 Traffic Planning, Vehicle Parking, Circulation and Access.



- 8. Filling on the floodplain Any development application that seeks consent to fill land within the flood planning area will need to have regard to the provisions contained within Chapter C2 Areas Affected by Flood.
- 9. Engineering detail by a suitably qualified structural or geotechnical engineer to be submitted for earthworks on land with a gradient exceeding 15% or where cut and fill of more than 1 metre is proposed.
- 10. A site plan shall be provided that shows all areas of cut and fill on the site and specifically identifies any areas over one metre.

