



TWEED SHIRE COUNCIL

## Development Control Plan No 47

Planning  
Service

# Cut And Fill On Residential Land

Draft Version 1.2

~~4 February 2003~~

7 February 2006

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**TWEED SHIRE COUNCIL**

**CERTIFIED IN ACCORDANCE WITH  
THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979  
AND REGULATIONS**



GENERAL MANAGER

DATE: 29/1/03

**DEVELOPMENT CONTROL PLAN No 47 -**

**Cut And Fill On Residential Land**

**Versions/Edits**

Version 1.1	Initial Plan operational from 4 February 2003
Draft Version 1.2	

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## 1.0 INTRODUCTION

### 1.1 What is the Name of this Plan

The name of this plan is Draft Tweed Development Control Plan No 47 - Cut And Fill On Residential Land.

### 1.2 Application of this Plan ~~Where does the Plan Apply?~~

#### 1.2.1 Where does this plan apply?

This Development Control Plan (DCP) applies to all ~~residential development within of~~ Tweed Shire

#### 1.2.2 What development is subject to this plan?

This plan applies to all residential development and associated ancillary development within Tweed Shire

- on steeper sites where the slope of the land is 10% or greater or
- where cut and/or fill earthworks exceeding 300mm in height/depth are proposed.

This plan regulates:

- dwelling design on steeper sites
- cut and fill earthworks on residential allotments
- cut and fill earthworks associated with residential and/or dwelling development
- associated retaining walls, revetments, drainage and landscaping.
- creating impervious surfaces

Earthworks on residential land may be associated with dwelling construction, allotment reshaping and/or landscaping. Such earthworks may take place before, during or after completion of dwelling construction. This plan applies to all such earthworks and associated retaining walls, drainage, creation of impervious surfaces and erosion and sediment control works.

### 1.3 Status of this Plan

This Plan has been prepared in accordance with Section 72 of the Environmental Planning and Assessment Act, 1979 (EP&A Act) and Part 3 of the Environmental Planning and Assessment Regulation 1994. This version of the plan came into effect on ...4 February 2006~~3~~.

### 1.4 Purpose of this Plan

The purpose of this plan is to ensure earthworks and site works associated with residential development are sympathetic to the topography of the site, by using appropriate design principles and minimising earthworks and associated impacts on the site and neighbouring land. ~~provide more detailed guidelines for the development of the land having regard to the amount of cut and fill permitted on domestic forms of construction.~~

## DEVELOPMENT CONTROL PLAN NO 47 – CUT AND FILL ON RESIDENTIAL LAND

**1.5 Local Environmental Plan**

This plan relates to Tweed Local Environmental Plan 2000 which is the principal instrument governing development in the Shire.

**1.6 Application of Plan**

Where a development application is lodged which relates to land to which this plan applies, Council shall take the provisions of this plan into consideration in determining that application. Compliance with the provisions of this plan does not necessarily imply that Council will consent to any application. Council must also take into consideration those matters listed under Section 79C of the Environmental Planning and Assessment Act, 1979. Where in the opinion of Council, an application satisfies the objectives set out in this plan Council may grant consent to the application notwithstanding that one or more of the development standards are not complied with.

**1.7 Objectives of the Development Control Plan**

The objectives of this Development Control Plan are as follows:

- a. To ~~promote residential development that is sympathetic with~~ restrict and control excessive earth works in order to preserve as much as practicable the existing topography, water cycle and amenity of the site and neighbourhood
- b. To minimise affected by the extent of earth works on residential land and earthworks associated with residential development. the proposed development.
- cb. To ensure that the building design is appropriate for site topographical conditions and with consideration given to the stability and privacy of the adjoining properties.
- de . To promote water sensitive urban design (including minimising of impervious surface area) and best practice erosion and sediment control measures on residential land.~~minimise the effect of disturbance on any land and ensure that dangerous excavations are avoided, or where necessary, are properly retained.~~
- d. ~~To prevent the siltation of waterways and erosion of land disturbed by the development.~~
- e. ~~To rehabilitate the site within a reasonable time frame upon completion of the development~~
- f. ~~To minimise the removal and disposal of resultant spoil from the site.~~
- g. ~~To retain topsoil on site.~~
- h. ~~To ensure adequate provision is made for drainage in relation to cut and fill practices.~~

**2.0 SPECIFIC REQUIREMENTS OF THE DEVELOPMENT CONTROL PLAN****2.1 Dwelling Design**

- Dwelling design is to adopt urban design principles that are sympathetic to the topographical features of the site and neighbouring area.
- Dwellings must not be designed to be on a contiguous slab on ground type if the building site has a slope of greater than 10%.
- Development on such land is to be of pole or pier construction or multiple slabs or the like that minimise the extent of cut and fill.

## **2.2 Water Sensitive Urban Design**

**2.2.1 Development of residential allotments that is subject to this plan shall adopt water sensitive design principles and:**

- (i) Runoff is to be minimised, delayed in its passage and where possible accommodated within the landscape of the development site. \*
- (ii) The maximum impermeable site area shall not exceed (See Table 1).
  - 60% of the allotment area for single dwellings and dual occupancies
  - 90% of the allotment area for multidwelling housing.
- (iii) Internal runoff shall be dispersed onto grassed, landscaped or infiltration areas. \*
- (iv) The concentration, collection and piping of runoff to the street gutter or underground stormwater system shall be minimised.\*
- (v) Roof runoff shall be collected in tanks and reused
- (vi) Site surface depressions in landscaping are to be utilised for on site detention and infiltration\*

\* Unless this is inconsistent with the geotechnical stability of the site or adjacent/downstream land

### **Table 1. Impermeable Site Area**

The impermeable site area is the total area of impermeable surfaces within the site following completion of the development. It is calculated by adding up the area (in square metres) for each different type of ground surface that does not allow natural infiltration of rainwater. As some types of surfaces are only partially impermeable, it is necessary to multiply the area of the surface with an appropriate ‘impermeability factor’ as indicated below.

<b><u>Surface type</u></b>	<b><u>Material</u></b>	<b><u>Impermeable factor</u></b>
<b><u>Roof surfaces</u></b>	<b><u>Metal. Tile, slate and other impermeable materials</u></b>	<b><u>1.0</u></b>
	<b><u>“Green roofs”</u></b>	<b><u>0.5</u></b>
<b><u>Ground surfaces</u></b>	<b><u>Concrete/ paving (non-porous)</u></b>	<b><u>1.00</u></b>
	<b><u>Gravel</u></b>	<b><u>0.75</u></b>
	<b><u>Porous paving</u></b>	<b><u>0.50</u></b>
	<b><u>Grid pavers</u></b>	<b><u>0.20</u></b>
<b><u>Decks</u></b>	<b><u>Concrete/ paving (non-porous)</u></b>	<b><u>1.00</u></b>
	<b><u>Timber (over natural soil)</u></b>	<b><u>0.50</u></b>
<b><u>Swimming pools</u></b>	<b><u>All types</u></b>	<b><u>0.50</u></b>

**2.2.2 A “site water management plan” (WMP) must accompany the development or complying development application, demonstrating compliance with 2.2.1.**

**It will be a condition of development consent that the landowner**

- Prior to issue of an occupation certificate, installs all water sensitive design facilities designated in the WMP**
- Operates and maintains in perpetuity all water sensitive design facilities designated in the WMP**

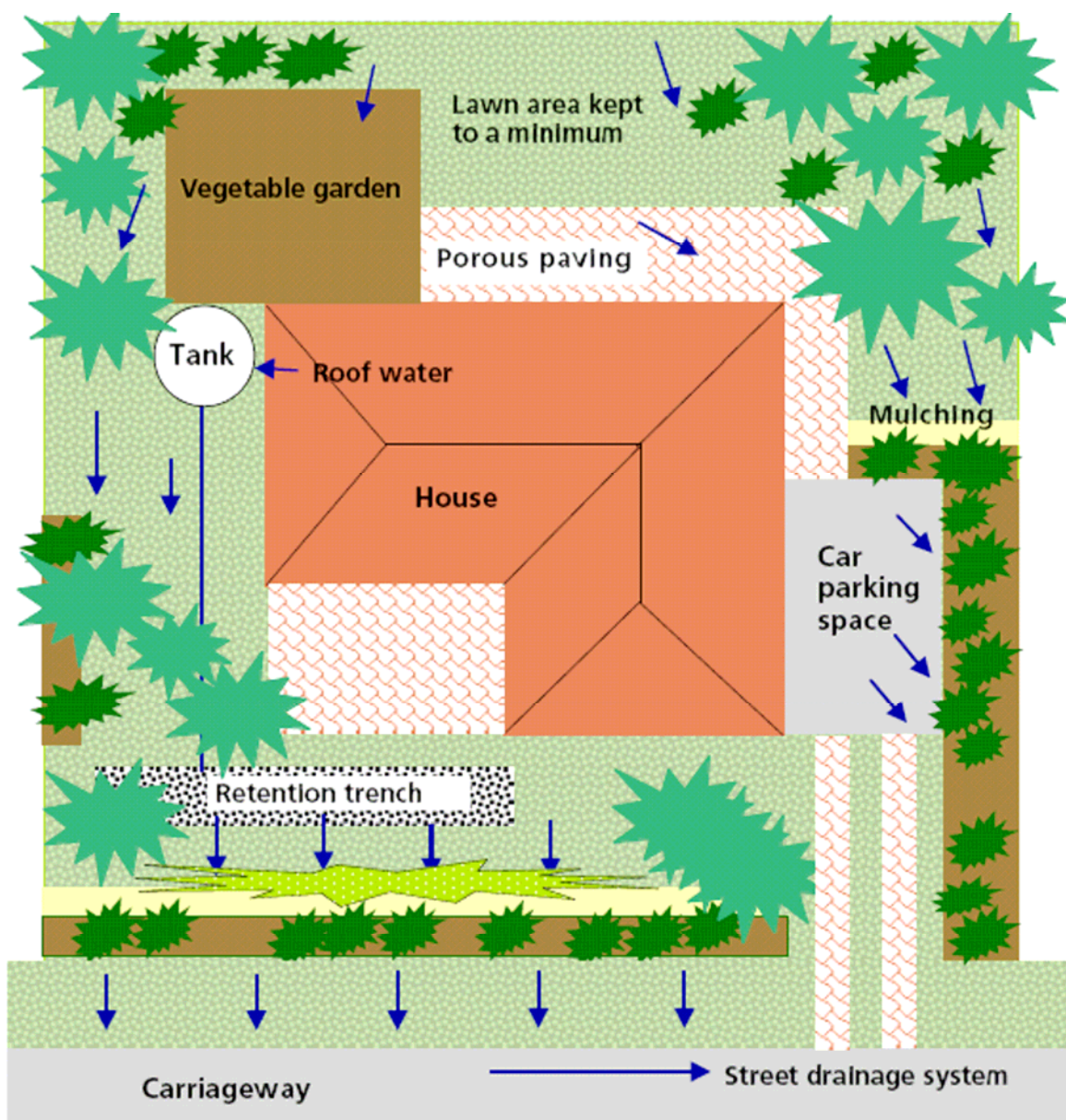


## DEVELOPMENT CONTROL PLAN NO 47 – CUT AND FILL ON RESIDENTIAL LAND

- Retains in perpetuity a minimum 40% (10% for multidwelling housing sites) of the site area as designated in the WMP, as permeable surfaces which allow the unrestricted or natural infiltration of stormwater.

2.2.2 Erosion control measures must be designed and installed in accordance with Tweed Shire Council's "Development Design Specification D7 - Stormwater Quality" and its Annexure A - "Code of Practice for Soil and Water Management on Construction Works".

2.2.3 A detailed erosion and sediment control plan (prepared in accordance with D7 above) indicating the method for the temporary and permanent restoration of cut and filled areas must accompany the development application.



**Fig. 1. - Example of Water Sensitive Urban Design of Residential Allotment**

## DEVELOPMENT CONTROL PLAN NO 47 – CUT AND FILL ON RESIDENTIAL LAND

**2.31 Cut and Fill Design**

~~2.1.1 Adequate erosion control measures must be designed and installed in accordance with Tweed Shire Council's "Development Design Specification D7 – Stormwater Quality" and its Annexure A "Code of Practice for Soil and Water Management on Construction Works".~~

~~2.1.2 A detailed erosion and sediment control plan (prepared in accordance with D7 above) indicating the method for the temporary and permanent retention of cut and filled areas must accompany the development application.~~

**2.31.13** Cut and fill batters shall not exceed a slope of 1:2 (v:h) unless geotechnical reports result in Council being satisfied with the site stability (see 8.2). All batters are to be provided with both short term and long term stabilisation to prevent soil erosion.

**2.31.24** Stormwater or surface water runoff shall not be redirected or concentrated onto adjoining properties so as to cause a nuisance and adequate drainage is to be provided to divert water away from batters.

**2.31.35** Prior to the commencement of any bulk earthworks (cut and/or fill) topsoil must be removed from the proposed disturbed area and stockpiled for dressing the disturbed area upon completion of bulk works.

**2.31.46** Where filling greater than 500mm is required for a proposed development a detailed landscape plan and site "water management plan" indicating methods for disposing of both surface water and stormwater runoff must be submitted to Council with the development application.

**2.31.57** For residential dwellings the depth of excavation shall not exceed one metre and the depth of fill shall not exceed one metre so that the degree of both cutting and filling is minimised.

**2.31.68** Excavations in excess of one metre within the confines of the building and on driveways may be permitted, to allow for basements, garages, etc. providing the excavations are adequately retained and drained, in accordance with engineering details.

**2.31.79** The top of any battered cut (or retaining wall) and the toe of any battered fill (or retaining wall) is not to be closer than 900mm to any property boundary, where the overall height at any point exceeds 500mm.

**2.42 Variations to Cut and Fill Design**

~~2.4.1 Variations to the requirements of 2.3 above will only be permitted for the creation of a flat yard space not exceeding 10% of the area of the allotment for the purposes of outdoor living, recreation, clothes drying, swimming pool and the like~~

~~2.42.24 Proposed Variations in accordance with 2.4.1 must demonstrate may be allowed if it can be shown that the excavation or filling of the site is in harmony with the natural landform/environment and will not adversely affect the adjoining properties, whilst still achieving the objectives of this plan.~~

~~2.42.32 All requests for variation to design criteria in 2.1 of this policy must be in writing setting out the reasons for requesting the variation, and be supported by the abovementioned documents.~~

**2.42.43** Where Council approves of an excavation or filling of land that is in excess of one metre in height, the excavation shall be protected in accordance with the requirements of the Work Cover Authority.

**2.2.4** Where a property is burdened by stormwater or water and sewerage mains then Council will generally preclude any excavation or filling within that easement.

### **2.53 Geotechnical Requirements**

Council requires an approved geotechnical and structural engineers report for earthworks in

- areas where there is a risk of landslip; or
- lots that are supported by, or adjoin higher lots that are supported by - existing retaining walls or cut/fill batters that exceed 1 metre in height, and the new work may affect the integrity of the wall or batter; or
- lots where proposed earthworks batter slope exceeds 1:2 (v:h); or
- proposals where the height of cut or fill will exceed one metre in height.

Council will assess the suitability of any cut or fill within these areas dependent upon the recommendation contained in the above reports.

The geotechnical and structural engineers report shall include

- an assessment of the stability of the proposal (for both the subject lot and adjoining land);
- recommended design criteria for earthworks, retaining walls and associated drainage;
- recommended location and design criteria for underground services in the zone of influence of the earthworks;
- recommended periodic maintenance requirements for earthworks, drainage and retaining structures by property owners.

Earthworks, revetments, retaining structures, associated drainage and underground services must be designed and constructed in accordance with this report. The construction certificate application shall include engineering design plans and specifications that implement the recommendations of the report.

### **2.64 Alternative Construction**

Alternatives to slab on ground construction are to be encouraged where it is obvious that due to the gradient and characteristics of the site, major excavation or filling as a result of raft slab construction, would be inappropriate.

Example of alternative construction include the following:

- Bearer and joist construction.
- Deepened edge beam.
- Split level design.
- Suspended slab design.

### **2.75 Vegetation**

Erosion and sedimentation control measures must remain in place and be maintained until the exposed disturbed areas have been revegetated and/or stabilised.

### **2.86 Plans Required With Development Applications**

The plans that accompany development applications for ~~\_residential\_~~ development subject to this plan with cut and fill earthworks must show:

- The plan location of cut and fill earthworks
- Location of top and bottom of cuttings, fill embankments, and associated batters and/or retaining walls and proximity to allotment boundaries.

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- Pre and post development ground levels on the allotment. Where cut and fill is in excess of one metre in height, or where earthworks are within one metre of an allotment boundary, the levels shall extend at least two metres (horizontally) into adjoining land (so that the impact on adjoining land may be assessed).
- Details of associated retaining walls, safety railings, batter treatment, drainage and landscaping. Drainage plans must demonstrate compliance with 8.1.4.
- Locations and depths of service trenches in areas affected by cut and fill.
- [Water management plan](#)
- [Landscape plan](#)