TAMWORTH REGIONAL COUNCIL

DEVELOPMENT CONTROL PLAN

HILLS PLAIN 2006

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This is to certify that Tamworth Regional Council's Development Control Plan – Hills Plain 2006 has been adopted by Resolution of Council and will take effect on

3 April 2006

TABLE OF CONTENTS

1	INTRODUCTION				
	1.1	N AME OF THE P LAN	1		
	1.2	STATUS	1		
	1.3	COMMENCEMENT	1		
	1.4	LAND TO WHICH THE PLAN APPLIES	1		
	1.5	OBJECTIVES OF THE PLAN	1		
		1.5.1 Staging	2		
	1.6	RELATIONSHIP TO OTHER PLANS AND POLICIES	2		
		1.6.1 Relationship to Other Development Control Plans	2		
		1.6.2 Relationship to Council's S94 Plan	3		
	1.7	HOW THIS DCP APPLIES TO DEVELOPMENT	3		
	1.8	DEFINITIONS			
		BACKGROUND TO PLAN	4		
	1.10	How to use the Plan	5		
2	DEVE	ELOPMENT REQUIREMENTS	5		
	2.1	SUBDIVISION DENSITY	5		
	2.2	SUBDIVISION DESIGN	6		
	2.3	Ecology	7		
	2.4	DRAINAGE	8		
	2.5	SALINITY	10		
	2.6	GEOLOGY	10		
	2.7	ABORIGINAL CULTURAL HERITAGE	11		
	2.8	UTILITY SERVICES	12		
	2.9	TRAFFIC AND ACCESS	13		
	2.10	BUSHFIRE PROTECTION	15		
	2.11	EXISTING LAND USE	16		
	2.12	LAND CONTAMINATION	16		
	2.13	OPEN SPACE	17		

Attachments

Attachment 1	Guidelines for Hillside Construction	n
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Attachment 2 DCP Concept Plan

1 INTRODUCTION

1.1 NAME OF THE PLAN

This plan is called the "Tamworth Regional Development Control Plan – Hills Plain 2006" and consists of this written document and accompanying figures, hereafter referred to as the DCP.

1.2 STATUS

This plan is a development control plan prepared under Section 72 of the *Environmental Planning and Assessment Act 1979*. It is a matter Council is obligated to consider in the determination of a development application pursuant to Section 79C of that Act.

1.3 COMMENCEMENT

This DCP was approved as draft for exhibition by Council on 22 November 2005 and came into force on 3 April 2006, in accordance with the provisions of the *Environmental Planning and Assessment Regulation 2000*.

Council from time to time may amend this DCP following exhibition of any proposed amendments for public comment in accordance with the Regulations. Any submissions received must be considered by the Council before any amendment to the plan is adopted. Applicants should ensure they have the latest version of the DCP.

1.4 LAND TO WHICH THE PLAN APPLIES

This DCP applies to approximately 800 hectares of land within Tamworth Regional Council, located to the north of Tamworth urban area, known as the Hills Plain as shown in Attachment 2.

1.5 OBJECTIVES OF THE PLAN

The objectives of this DCP are:

- to facilitate and provide guidance for the development of the Hills Plain area (Attachment 2).
- to promote innovative subdivision of a high design quality consistent with the capability of the land.
- to identify key road connections and intersections to ensure the provision of an integrated and functional road network.
- to maximise retention of remaining native vegetation and strategic links through the site to regional vegetation corridors.
- to promote re-vegetation, particularly in relation to road reserves, road frontages for each lot and designated buffer areas along drainage lines.
- to minimise the potential for erosion, sedimentation and contamination of water courses.
- to ensure that development of the subject land does not adversely impact on the existing rural and scenic character of the locality.

1.5.1 Staging

The development will need to occur in stages for the following reasons:

- to allow the orderly and cost efficient extension of reticulated water supply and sewer systems;
- the need to defer development of the area affected by the buffer zone for the Tamworth landfill site;
- provision of required road upgrades in a coordinated manner;
- timing of implementation of detention basin construction and drainage corridors/diversion drains to minimise downstream impacts of each development stage.

1.6 RELATIONSHIP TO OTHER PLANS AND POLICIES

Where a development application (DA) is lodged which relates to land to which this plan applies, Council will take into consideration the provisions of this plan when determining the application.

Compliance with the provisions of this plan does not necessarily imply that Council will consent to an application. Council must also give consideration to the full range of issues as set out in relevant planning instruments and the provisions of Section 79C of the *Environmental Planning and Assessment Act 1979*.

Where there is an inconsistency between this plan and any environmental planning instrument, the provisions of the environmental planning instrument shall prevail. An environmental planning instrument includes a State Environmental Planning Policy, a Regional Environmental Plan and a Local Environmental Plan.

1.6.1 Relationship to Other Development Control Plans

The land to which this DCP applies was formerly affected by the operation of the Development Control Plans listed below –

Tamworth Development Control Plan No. 1 – Traffic & Parking Guidelines

Tamworth Development Control Plan No. 3 – Outdoor Advertising Guidelines

Tamworth Development Control Plan No. 4 – Guidelines for Industrial Development

Tamworth Development Control Plan No. 9 – Guidelines for Outdoor Lighting

Tamworth Development Control Plan No. 12 – Guidelines for Dual Occupancy and "Granny Flat" Development

Tamworth Development Control Plan No. 19 – Subdivision Guidelines

Tamworth Development Control Plan No. 20 – Advertising/Notification of Development Applications

Parry Development Control Plan No. 1 – Rural Residential Development

Parry Development Control Plan No. 6 – Poultry Development

Parry Development Control Plan No. 9 – Landscaping Guidelines

Parry Development Control Plan No. 10 - Notification and Advertising of Development Applications

Parry Development Control Plan No. 12 – Residential Development

These plans do not apply to the land affected by this Development Control Plan.

As provided by section 74C(2)(3), the provisions of the Development Control Plans listed below apply to development carried out on land affected by this Development Control Plan.

Tamworth Development Control Plan No. 1 – Traffic & Parking Guidelines

Tamworth Development Control Plan No. 3 – Outdoor Advertising Guidelines

Tamworth Development Control Plan No. 4 – Guidelines for Industrial Development

Tamworth Development Control Plan No. 9 – Guidelines for Outdoor Lighting

Tamworth Development Control Plan No. 12 – Guidelines for Dual Occupancy and "Granny Flat" Development

Tamworth Development Control Plan No. 19 – Subdivision Guidelines

Tamworth Development Control Plan No. 20 – Advertising/Notification of Development Applications

Parry Development Control Plan No. 1 – Rural Residential Development

Parry Development Control Plan No. 6 – Poultry Development

Parry Development Control Plan No. 9 – Landscaping Guidelines

Parry Development Control Plan No. 10 – Notification and Advertising of Development Applications

Parry Development Control Plan No. 12 - Residential Development

1.6.2 Relationship to Council's S94 Plan

The provisions of the *Tamworth Urban Section 94 Contributions Plan 2006-2011* apply to development in the Hills Plain area. When making an application interested parties should make themselves aware of the provisions of this Plan and any other provisions relating to developer contributions. These other provisions can include contributions relating to bushfire protection, water and sewer headworks charges or other contributions as may be required following subsequent review of developer contributions by Tamworth Regional Council.

1.7 How this DCP applies to development

Council is required to consider the provisions of this Plan when assessing a development application for building, development or subdivision within the Hills Plain area (as shown in Attachment 2). However, Council is also required to consider the specific circumstances of the case of any development application. Where the merits of the case and the provisions of the development control plan differ, and an innovative solution is proposed, Council will assess whether the application warrants a variation to the provisions of the development control plan.

In making this assessment, applications will be considered in the context of the stated objectives. The guidelines and philosophies contained in this plan are, in general, a means of achieving the Plan's objectives. However, departures from the plan will be considered where it is demonstrated that the guidelines are unnecessary or unreasonable in the circumstances of the case and Council is satisfied that the Plan's objectives will not be comprised.

1.8 DEFINITIONS

Terms used in this plan:

"Council" means Tamworth Regional Council

"DCP" means this plan, the Development Control Plan – Hills Plain 2006

"DEC" means Department of Environment and Conservation

"Hills Plain" means the approximately 806ha area to which this DCP applies, as shown in Attachment 2, which constitutes part of the overall Hills Plain Master Plan area.

"Hills Plain Master Plan" means the Hills Plain Master Plan prepared by Hassell and Associates 1995 and adopted by both the former Parry Shire and Tamworth City Councils.

1.9 BACKGROUND TO PLAN

The 806ha study area represents the remaining portion of the 1100ha Master Plan area that has not yet been subject to a lodged rezoning or development application (refer Attachment 2).

Parsons Brinckerhoff conducted environmental investigations across the study area for the following constraints:

- Ecology
- Bushfire
- Aboriginal heritage
- Land contamination
- Infrastructure
- Stormwater
- Open space
- Geology
- Salinity

The following additional constraints and opportunities were also considered in preparing the DCP:

- Landfill buffer
- Traffic capacity and networks

 Urban design (legibility, visual amenity, aspect, walkability, connectivity, pedestrian safety, energy efficiency, social interaction, character, urban form and building envelopes).

"Sieve mapping" of constraints was used to identify priority protection and development areas. The controls contained in this DCP are based on:

- managing key constraints;
- providing direction for assessing the extent/impact of constraints;
- establishing criteria for each constraint for Council to assess applications;
 and
- enabling innovative subdivision design.

The DCP Concept Plan is based on the land use densities identified in the *Hills Plain Master Plan* (prepared by Hassell and Associates) adopted by Council in 1995 (as amended).

1.10 HOW TO USE THE PLAN

The **Development Concept Plan** represents the overall development objectives for the area and should form the basis of designing lot layouts. The concept plan summarises the key design criteria described in this plan. Applications under this DCP should be consistent with the intent of the concept plan, and any variations must be rigorously justified.

The 'Development Requirements' section of this DCP is arranged in two subsections as follows:

Objectives describe the intention of the criteria and the desired outcomes.

Guidelines establish the principles to achieve the objectives in lieu of established performance criteria.

Performance Criteria are standards for achieving the objectives.

Compliance with the performance criteria does not guarantee that an application will be approved. The objectives must be achieved in each case and will be assessed on its merits with consideration of the provisions of Section 79C of the *Environmental Planning and Assessment Act 1979*.

2 DEVELOPMENT REQUIREMENTS

2.1 SUBDIVISION DENSITY

Objectives

- To achieve the concept adopted in the Hills Plain Master Plan of a village of residential land surrounded by "rings" of rural-residential subdivision at decreasing densities.
- To provide housing choice within the new community.
- To ensure that the form and scale of development is compatible with the capability and suitability of the land.

Performance Criteria

- (a) Lot sizes are to be consistent with those of the *Hills Plain Master Plan* as shown in the DCP Concept Plan Attachment 2.
- (b) The subdivision densities within the blue and yellow Master Plan category areas may be carried out on land within 50 metres of either side of the Master Plan category boundaries, except in such instances where the land adjoins residential land (as shown pink on the Master Plan map). Such applications will be considered by Council on a merit basis, and will only be permitted if the variation is necessary due to subdivision design requirements and where it is rigorously demonstrated the land is suitable for the density of development as proposed.

2.2 SUBDIVISION DESIGN

Objectives

- To ensure that the overall layout achieves energy efficiency, creates flexibility of travel paths and connections, integrates with the landscape and protects environmental and landscape values.
- Develop and maintain an attractive rural living environment that has its own sense of place that reinforces its unique location.

Performance Criteria

(a) **Rural character**. Buildings are to be located and constructed of a size and scale that is compatible with the topographic and landscape characteristics of the land having regard to viewing distances from public places so that they do not intrude into the skyline. Buildings should not exceed a maximum of two stories in height.

The visual character must be maintained by excluding development on slopes greater than 20% (refer section 2.6 of this plan).

Footprint: A suitable building envelope shall be identified for new allotments where the land is constrained by slope, existing vegetation and drainage lines or is visually prominent.

Within the blue master plan area, the size of any garages or sheds is not to exceed 75m² gross floor area, 3.6 metres in height (measured to the peak of the roof) with a maximum eave height of 3 metres. Within the yellow master plan area, the size of any single garage or shed is not to exceed 115m² gross floor area, 3.6 metres in height (measured to the peak of the roof) with a maximum eave height of 3 metres and the total cumulative gross floor area of all ancillary structures on the site is not to exceed 150m². The cumulative site coverage of all residential and ancillary buildings (including dwellings, sheds and garages) within the blue and yellow master plan areas is not to exceed 50%.

- (b) **Setbacks:** Within the blue and yellow areas on the Master Plan map (refer Attachment 2), all buildings are to be setback a minimum of 10 metres from the front property boundary and, where applicable, the secondary frontage. In the residential areas, identified as pink in the Master Plan map (refer Attachment 2), all buildings are to be setback a minimum of 4.5 metres from both the primary and secondary frontages.
- (c) **Orientation:** All buildings are to be orientated to ensure that they are capable of receiving good solar access to internal and external living spaces during all months of the year.

- (d) **Built form:** All buildings are to have a maximum height of two stories.
- (e) **Building materials and colours:** The colours of building materials are to maintain the rural theme of the locality with emphasis given to non-reflective cool greys, light browns, ochres and earthy hues that complement the materials and tones found in the area. Zinc-allume roofing is not permitted.

Driveways shall be designed to provide for an all-weather access and shall limit increases to runoff by allowing infiltration.

(f) **Privacy:** Dwellings are to be sited so as to minimise loss of privacy to adjoining allotments.

Upper storey windows are to be designed so that the potential to overlook adjoining open space and living areas is minimized.

(g) Landscaping: A structural landscape plan shall be lodged with Council at the time of submitting the application for a construction certificate (CC) for subdivision. This is to include nominated landscaping areas and proposed species. The landscape plan submitted with each development application for subdivision shall identify the landscape scheme for the proposed subdivision roadways. Preference will be given to species comprising predominantly native vegetation from the local area. Exotic tree species may be included to accent certain locations or streets. The landscape plan shall also identify design principles for public open space and conservation areas.

Driveway widths to the street should be designed in accordance with Council's adopted *Engineering Guidelines* and provide adequate space for street trees.

The linen plan of subdivision will not be released (ie Subdivision Certificate issued) until such time as the landscaping has been undertaken in accordance with the approved plan.

2.3 ECOLOGY

Objectives

- Retain and protect remnant woodland within the Hills Plain study area for the purpose of preserving natural habitat and enhancing both the character of the local landscape and the amenity of the developed area.
- To ensure that development of the site provides for the protection and rehabilitation of important habitat areas and maintenance of native vegetation.
- Improve habitat connectivity.

Guidelines

- Fallen logs should be retained where they exist close to remaining trees as additional habitat.
- A covenant should be established by the developer to exclude cats as domestic pets.
- Wherever practicable, all native vegetation should be retained within the road reserves and supplemented with additional plantings of indigenous species.
- Invasive plant species, either indigenous or exotic, should not be planted.

Performance Criteria

- (a) Applications for subdivision and any subsequent buildings should indicate all existing vegetation on plans accompanying the development application.
- (b) Buildings and driveways should be sited to avoid removal of trees.
- (c) A Vegetation and Habitat Management Plan (V&HMP) is required to accompany all development applications that include areas of potential conservation value. The V&HMP should aim to ensure conservation of all mature trees and dead trees with hollows, and the sound management of remnant on-site vegetation
- (d) Ecological assessments for development within areas of moderate conservation (refer Figure 2.1 in Hills Plain Development Control Plan – Issues Paper (Parsons Brinckerhoff 2005) require targeted surveys to identify the location of the regionally significant Lobed blue-grass (Bothriochloa biloba) and Dichanthium setosum. If located onsite, these should be conserved where possible.
- (e) Remnant vegetation contained within proposed lots should be protected under covenants.
- (f) Removal of vegetation identified in this DCP Concept Plan as *Environmental Conservation* (Attachment 2) is not permitted.
- (g) Vegetation along roadsides and between sections of remnant vegetation as shown in Attachment 2 should be replanted using locally native species as listed in subclause (h). On-site landscaping should also use locally native species. The planting of exotic species will only be accepted when they are an essential part of an integrated landscape plan and are a required "feature" of the development.
- (h) A list of native plant species can be found in the book Australian Plants Suitable for Tamworth Regional Council Areas. Copies of this book can be found at Council's website www.tamworth.nsw.gov.au and then follow the tabs to Council and then Environment. This book, which was prepared by members of the Tamworth Group of the Australian Plants Society, also contains an introduction to the use of native plants in waterwise gardens in the Tamworth Regional Council area.
- (i) The retention of isolated paddock trees should be maximised, including dead trees with hollows.
- (j) A buffer from development should be incorporated into any proposed new lots adjoining areas identified for conservation in Attachment 2 (i.e. areas of White Box Woodland). The extent of this buffer should be no less than the bushfire Asset Protection Zone (APZ).
- (k) All activities that may impact on the integrity of the habitat vegetation or corridor link, including under-storey clearing, will not be permitted outside identified building envelopes.

2.4 DRAINAGE

Objectives

- To protect drainage lines for natural habitat values, visual values, soil conservation and flood protection.
- To ensure that consideration is given to the potential erosion of soils and the sedimentation of downstream watercourses or drainage systems.
- To iimprove drainage and minimise uncontrolled ponding.

Guidelines

• The principles of Water Sensitive Urban Design are to be implemented at the allotment and subdivision scale. Reference should be made to the recommendations of the *Hills Plain DCP – Issues Paper* (Parsons Brinckerhoff 2005).

Performance Criteria

- (a) There shall be no disturbance within 20 metres of the top of the bank of natural creek and drainage lines as identified in Attachment 2. The 20 metre buffer from the drainage lines (as shown in Attachment 2) may be incorporated into new lots adjoining the drainage reserve however a building envelope will need to be identified outside the buffer.
- (b) Additional setbacks to the drainage reserves may be required to accommodate flood flows and community infrastructure (eg utilities, bridle trails, cycleways and pedestrian networks). Indicative flood widths are shown in Figure 7.1 in the *Hills Plain DCP Issues Paper* (Parsons Brinckerhoff 2005).
- (c) Hydraulic assessments must consider the loss of conveyable area due to riparian vegetation re-growth.
- (d) Road crossings and disturbance to land within 20 metres of creek lines is to be minimised.
- (e) All stormwater works are to be designed in accordance with Tamworth Regional Council's adopted Engineering Standards and Guidelines and current best practice.
- (f) Suitable scour protection is to be provided at all discharge points to existing creek lines.
- (g) Each lot is required to be designed to ensure dwelling site access outside the designated stormwater drainage areas.
- (h) A landscape and rehabilitation plan is required to be prepared and implemented by the developer for creek lines using suitable riparian species.
- (i) A "Stormwater Management Plan" is required to be prepared for the management of runoff from all proposed development in accordance with Council's adopted Engineering Standards. The plan must document existing and post development flow and water quality conditions, and identify suitable stormwater controls for ameliorating the impacts of the proposed development. Reference should be made to the recommendations of the *Hills Plain DCP Issues Paper* (Parsons Brinckerhoff 2005).
- (j) A "Soil and Water Management Plan" is required to be prepared for each stage of the site development for lodgement with applications for construction certificates. The Plans will integrate measures for the control of soil erosion and sedimentation in accordance with the principles set out in The Department of Housing's publication, Managing Urban Stormwater: Soil and Construction (1998) and the NSW Environment Protection Authority's publication, Managing Urban Stormwater: Construction Activities (1997). Soil and Water Management Plans shall demonstrate that:
 - a. the erosion and sediment control systems are capable of removing entrained sediment to a satisfactory standard; and

- b. the erosion and sediment control systems are designed, constructed and maintained in accordance with relevant legislation.
- (k) Sedimentation and erosion control measures must be installed prior to any construction taking place on the land. Temporary controls are to be removed after satisfactory restoration and completion of landscaping works to stabilise all exposed areas.

2.5 SALINITY

Objectives

- To maintain the natural water balance and good drainage to prevent salinity of soils.
- To implement building controls and/or engineering responses where appropriate to manage the impact of salinity and reduce the maintenance of infrastructure and buildings.

Guidelines

- Concentrated infiltration and un-lined detention basins are to be minimised in areas of high or medium salinity risk.
- Development within high or medium salinity risk areas should incorporate 'Waterwise" gardening principles to limit on-site irrigation.
- Road and construction designs must not impede drainage nor intercept flow of groundwater or recharge.

Performance Criteria

- (a) The local salinity conditions will be required to be assessed prior to finalising the development drainage scheme to minimise ponding in sensitive areas.
- (b) A detailed salinity assessment must be prepared in accordance with Council's Salinity and Groundwater Management Policy.
- (c) Vegetation retention within lots is to be maximised to improve site drainage.
- (d) Creek lines are to be re-vegetated with riparian vegetation using suitable species.
- (e) Infrastructure design must consider the salinity risk, in selecting the appropriate location and materials (ie salt resistant) to minimise maintenance costs.
- (f) Disturbance and exposure of soils is to be minimised in areas identified as high or medium salinity risk.

2.6 GEOLOGY

Objectives

- To ensure structural integrity and safety of developments.
- To ensure that site stability is not compromised by proposed development.

Performance Criteria

- a) Detailed geotechnical investigations are required in areas identified as high geotechnical constraints in the *Hills Plain Development Control Plan Issues Paper* (Parsons Brinckerhoff 2005). Detailed building envelopes and footprints are to be assessed, including a targeted survey for subsurface caverns and dolines. Geotechnical investigations for these areas should be conducted by an experienced geotechnical engineer and should include but not be restricted to the following:
 - (i) a detailed site inspection, geological mapping and geophysical survey (eg: ground penetrating radar) of the area to identify any near surface voids;
 - (ii) subsurface investigation to determine underlying geology and foundation conditions;
 - (iii) a groundwater hydrology assessment, and
 - (iv) geotechnical advice regarding viability of development, ground treatment options and suitable footings for structures.
- b) Building construction shall be compatible with the subsurface conditions considering the potential impact of erosive soils, saline soils, soils of low wet strength, highly reactive soils and steep slopes.
- c) For development on slopes greater than 15%, in addition to good engineering practice, good hillside development practice shall be adopted. A summary of good hillside development practice is presented in Attachment 1 along with illustrations of good and poor construction practice.
- d) Development on slopes greater than 20% will not be permitted (refer Section 2.2).
- e) Good surface and sub-surface drainage is to be provided with no discharge on slopes, so as to mitigate the potential for erosion of gullies, slopes and drainage lines in the locality.
- f) All earthworks shall be revegetated without delay, to minimise surface erosion.

2.7 ABORIGINAL CULTURAL HERITAGE

Objectives

- To identify objects and areas of significance to the local aboriginal community.
- To manage and conserve objects and areas of significance to the local Aboriginal community with the involvement of the local Aboriginal community.

Performance Criteria

a) An archaeological site survey prepared by a qualified archaeologist, is to accompany all development applications for subdivisions in the study area to show the location of items relative to proposed lot boundaries, road works, utility installations, earthworks, accessways and building envelopes (where required). A report must be produced assessing the significance of archaeological artefacts on the site. An Archaeological Assessment of Hills Plain (*Insite Heritage 2005*) prepared as part of *Hills Plain Development Control Plan – Issues Paper* (Parsons Brinckerhoff 2005) identified a moderate to high potential for artefacts to occur across the Hills Plain area.

- b) In accordance with the significance assessment as outlined in the NPW reporting guidelines, management and mitigation strategies are to be recommended, as appropriate, from the following:
 - High significance: conservation in-situ for deposits or partial conservation and salvage of deposits where conservation is not practical. A Heritage Impact Permit issued under the NPW Act would be required for the salvage; or,
 - Moderate significance: salvage of deposits under a Heritage Impact Permit and Salvage Management Plan; or
 - Low significance: collection of artefacts under a Care and Control Permit by the local Aboriginal community issued by Department of Environment and Conservation (DEC).
- c) If a relic will be impacted by collection or destruction, a permit is required under the NPW Act. Where any permits are required under the NPW Act, the DEC are required to review the assessment.
- d) The appropriate mitigation strategy will generally be determined on a case by case basis in consultation with the Aboriginal community and DEC.

2.8 UTILITY SERVICES

Objectives

- To provide appropriate reticulated utility services for all components of the proposed development.
- To avoid unreasonable pressure on servicing authorities for timing and extent of supply.
- To ensure that satisfactory arrangements are made with servicing authorities.

Performance Criteria

- a) It is the responsibility of the developer to extend the required utility services of water and sewer and to provide stormwater drainage facilities to cater for the allotments.
- b) Provision of water and sewer is to be in accordance with Council's applicable servicing strategies and policies.
- c) Council as the local water supply authority, may require works of the following kind:
 - (i) Water mains, water reservoirs and water headworks;
 - (ii) Sewerage mains, sewer pumping stations and sewerage treatment headworks:
 - (iii) Drainage channels; and
 - (iv) Works ancillary to the above.
- d) A compliance certificate under Division 5 of Part 2 of Chapter 6 of the Water Management Act 2000 must be obtained from the Council (as the local water supply authority) to certify that the requirements of that Division have been complied with respect to these works.

- e) Under Section 306 of that Act, the Council may require a payment towards the cost of such works, or the construction of those works before it issues a compliance certificate. Information in relation to current developer contribution rates for water headworks, sewer headworks and downstream drainage for Hills Plain is available from Council.
- f) The Council's *Engineering Guidelines for Subdivision and Development*, provides technical requirements for the provision of utility services infrastructure in conjunction with the subdivision of the land.
- g) Satisfactory arrangements are required for the provision of electricity and telecommunications to the site. These services are to be provided underground for all lots. Reticulation from existing overhead lines and corresponding infrastructure is not permitted across roads. Where direct access is available to existing overhead infrastructure (ie where a property has direct frontage to an existing line) all augmentation is required to be provided underground.
- h) A hybrid system of gravity and low pressure sewer will be implemented across the DCP area. Low pressure sewer will generally be provided for new rural residential lots within the study area. Gravity sewer may be provided to higher density development and areas with suitable access and topography.
- i) Subdivision design must incorporate the provision of the sewerage infrastructure in accordance with Council's Sewerage Strategy.
- j) A minimum rainwater storage of 22,500 litres is required for dwellings located within the blue, yellow and green Master Plan category areas. Additional storage may be required as part of the BASIX certification process.

2.9 TRAFFIC AND ACCESS

Performance Objectives

- To ensure that satisfactory access arrangements are made to any new development or allotment created by subdivision.
- To provide safe entry and exit for vehicles and pedestrians, which reflects the use, operating speed and character of the road.
- To upgrade the external road system, in a staged manner as development proceeds, to provide a level of service consistent with the road network suitable to service a development of the scale and character proposed for the land. The road is to provide an acceptable level of access, safety and convenience for users of the property.
- To provide for an internal road network and system of walkways, cycleways and horse-riding trails of a form that integrates with the rural environment of the locality.

Guidelines

- Minimise cul-de-sacs to improve connectivity (and where necessary ensure the end
 of the cul-de-sac is visible from the nearest street, and length is kept to maximum of
 15-20 properties).
- A highly connected street system should be provided for in the subdivision design.
- Design roads in line with topographic contours to minimise cut and fill.

- Use service roads or other lot layout techniques to enable development to front arterial routes (ie not back fences).
- The road layout to be designed to distribute traffic relatively evenly through a flatter hierarchy of streets.
- Street network is designed to accommodate cyclists.
- Street network is designed to provide an efficient route for buses to maximise public transport (in consultation with local bus companies).
- All streets within the pink and blue Master Plan areas to have footpaths on at least one side and provide ramped crossings (suitable for prams and wheelchairs) to road pavements.
- Moore Creek Road should be promoted as the primary north-south access road while Manilla Road would retain its current status. Forest Road should be promoted as a secondary access to relieve Moore Creek Road. Browns Lane should be promoted as a connector road for the three north-south roads (Moore Creek, Manilla and Forest Roads) and also to provide neighbourhood access. An alternative connection of Bournes Lane to Moore Creek Road needs to be further investigated due to anticipated costs of drainage works and existing engineering constraints.
- Where cycleways are to be provided as part of the road environment, the construction is to be developer funded.

Performance Criteria

- a) All transport facilities i.e. roads and intersections, pedestrian footpaths, bicycle paths are to be designed to Council and/or RTA design standards (refer to Council's adopted Engineering Standards and Guidelines and RTA Road Design Guide).
- b) Road connections are to be provided generally in accordance with the DCP Concept Plan (Attachment 2) to improve integration with adjoining landholdings.
- c) Intersections to be provided at appropriate distance to allow for safe and convenient traffic movements including pedestrians and cyclists.
- d) Provisions of pedestrian footpaths and bicycle paths generally in accordance with the DCP Concept Plan (Attachment 2) and in accordance with Council's adopted Engineering Standards and Guidelines.
- e) Roads are to be designed to provide reasonable separation between road users i.e. pedestrians, cyclists and vehicular traffic.
- f) Subdivision plans are to provide adequate space for future road upgrade works including (refer to Council for plans):
 - (i) 5 metre widening both sides of Moore Creek Road
 - (ii) 5 metre widening both sides of Browns Lane
 - (iii) 7 metre widening to the southern side of Bournes Lane (being that section of Bournes Lane located west of the Moore Creek Road intersection).
 - (iv) roundabout at Browns Lane/Forest Road

- (v) roundabout at Browns Lane/Moore Creek Road
- (vi) roundabout at Tribe Street/Manilla Road
- (vii) intersection upgrade at Bournes Lane/Moore Creek Road
- (viii) intersection upgrade at Browns Lane/Manilla Road

Applicants must liaise with Council as to the expected timing of these upgrades. Provision of adequate traffic access will influence the timing of development.

- g) Design of subdivision layout must consider the possible future closure of Bournes Lane, east of Moore Creek Road. Applicants must liaise with Council regarding the status of this proposal.
- h) The number and integration of road access points to Moore Creek Road and Browns Lane are to be as shown in the DCP Concept Plan (Attachment 2).
- i) Within the yellow and green Master Plan areas, new internal roads shall be constructed in accordance with Council's adopted Engineering Standards and Guidelines, ie grassed swale drains and diversion drains; utility service corridor; revegetation (for amenity and natural habitat); and for pedestrian, bicycle and horse riding trails. In instances where diversion/catch drains are required, additional reserve widths may be required. Within residential areas, road widths are to be in accordance with Council's adopted Engineering Standards and Guidelines.
- j) All internal roads are to be constructed in accordance with Council's adopted Engineering Standards and Guidelines.
- k) Kerb and gutter is required to be provided to subdivisions located within the pink and blue Master Plan category areas in accordance with Council's adopted Engineering Standards and Guidelines.
- Direct vehicular access to individual allotments is not permitted from Moore Creek Road. Direct access will only be permitted to Browns Lane on the basis that kerb and gutter is provided.

Where direct access is not proposed (ie along Moore Creek Road), consideration must be given to the treatment of the rear of the allotments (the road frontage) in the interest of aesthetics and amenity. Solid fences such as colourbond will not be permitted. Proposed treatments must be nominated in the development application.

2.10 BUSHFIRE PROTECTION

Objectives

• To ensure that the development is designed and managed in response to the key principles of bushfire management.

Performance Criteria

a) The design and management of the development shall comply with the provisions of AS3959-1999 Construction of Buildings in Bushfire Prone areas and the guideline Planning for Bushfire Protection 2001, prepared jointly by the NSW Rural Fire Service and DIPNR.

b) Buildings shall be located to ensure that requirements for fuel free or fuel reduced zones do not limpact on existing native vegetation on the site.

2.11 EXISTING LAND USE

Objectives

• To design buffer areas around existing activities to ensure that new development does not impact on existing land use activities.

Performance Criteria

- a) Subdivision and development is generally excluded from the landfill buffer shown in Attachment 2, in accordance with the recommendations of the *Hills Plain Landfill Buffer Review* (GHD 2006). Revision of this exclusion zone would be the subject of detailed investigations and future amendment to this DCP will only be considered at such time as the Forest Road Landfill Depot ceases to operate and/or activity on the site ceases to present a potential odour and dust nuisance to any development proposed within the buffer area.
- b) Development adjacent to the existing landfill buffer must incorporate the future integration of development of the land affected by the buffer zone.
- c) Subdivision layout must consider the amenity of, and impact on existing land uses. Existing land uses must not be compromised by residential encroachment. The impact on visual amenity, noise, traffic and dust to and from the proposed new lots must be considered in subdivision applications.
- d) Buffers between dwellings (proposed and existing) should be maximised where possible to reduce potential land use conflicts.

2.12 LAND CONTAMINATION

Objectives

• To investigate the potential for site contamination prior to development and to implement measures to mitigate against the risk posed by contaminated land to human health and the environment.

Performance Criteria

a) Council's *Contaminated Land Policy 1999* shall apply to subdivision for residential or rural residential purposes. In this regard satisfactory detail is to accompany the development application to identify any past or present potentially contaminating activities related to the site.

Where listed in the Policy and/or identified as "Potential area for further investigation" or "Potential offsite source" in *Figure 5.1* of the *Hills Plain Development Control Plan – Issues Paper* (Parsons Brinckerhoff 2005) based on the known history of the land and an inspection of the site, a preliminary contamination investigation is required to provide a detailed appraisal of the site history, visual condition and assessment of likely contaminants. This investigation shall be carried out by a suitably qualified person and supplied by the applicant.

A detailed site contamination investigation will be required if the area is identified as a "Potential onsite source" in *Figure 5.1* of the *Hills Plain Development Control Plan – Issues Paper* (Parsons Brinckerhoff 2005) and/or the results of the preliminary investigation demonstrate a potential for, or existence of contamination that may

affect the suitability of the land for future development. Where identified in the *Hills Plain Development Control Plan – Issues Paper* (Parsons Brinckerhoff 2005), the assessment must include analysis of the relevant potential contaminants listed in Table 5.1 of the report.

Where land is identified as contaminated, Council must be satisfied that the site is suitable in its contaminated state (or will be suitable after remediation) for a proposed land use. If it is found that site remediation is necessary, a Remedial Action Plan is required to detail any proposed remedial works and a Validation Report will be required prior to the issue of a Subdivision Certificate.

2.13 OPEN SPACE

Objectives

• To provide usable open space for local residents that encourages outdoor activity and instils a sense of community.

Guidelines

- The following criteria must be achieved where possible in the provision of open space:
 - a. Minimum area of 0.5ha;
 - b. Buffered from main roads and identified hazards for improved safety;
 - c. Accessible by pedestrian and cycleway links;
 - d. Connectivity maximised between open space;
 - e. Walkable access to highest number of the population (within 500m);
 - f. High passive surveillance opportunities; and
 - g. Minimum slope.
- Subdivision design must consider open space provision in the early stages of planning to optimise the location and use.
- Maximise the complimentary uses of open space. Where possible combine with drainage, conservation and cycleways.
- The functionality of the open space must be considered in the case of dual or multiple use (eg. drainage area, riparian corridors, conservation areas, heritage protection areas), to ensure ongoing usability.

Performance Criteria

a) Passive and active open space must be provided in accordance with Council's Section 94 Contributions Plan and generally in accordance with the DCP Concept Plan (Attachment 2).

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Guidelines for Hillside Construction

(Source: Landslide Risk Management Concepts and Guidelines as presented in Australian Geomechanics News Volume 35 No 1, March 2000)

GUIDELINES FOR HILLSIDE CONSTRUCTION

	GOOD ENGINEERING PRACTICE	POOR ENGINEERING PRACTICE
ADVICE		
Geotechnical Assessment	Obtain advice from a qualified, experienced geotechnical consultant at early stage of planning and before site works.	Prepare detailed plan and start site works before geotechnical advice.
PLANNING		
Site Planning	Having obtained geotechnical advice, plan the development with the risk arising from the identified hazards and consequences in mind.	Plan development without regard for the Risk.
DESIGN AND CONSTRUC	CTION	
House Design	Use flexible structures which incorporate properly designed brickwork, timber or steel frames, timber or panel cladding.	Floor plans which require extensive cutting and filling.
	Consider use of split levels.	Movement intolerant structures.
	Use decks for recreational areas where appropriate.	
Site Clearing	Retain natural vegetation wherever practicable.	Indiscriminately clear the site.
Access and Driveways	Satisfy requirements below for cuts, fills, retaining walls and drainage.	Excavate and fill for site access before geotechnical advice.
	Council specifications for grades may need to be modified.	
	Driveways and parking areas may need to be fully supported on piers.	
Earthworks Cuts	Retain natural contours wherever possible.	Indiscriminate bulk earthworks.
	Minimise depth.	Large scale cuts and benching.
	Support with engineered retaining walls or batter to appropriate slope.	Unsupported cuts.
	Provide drainage measures and erosion control.	Ignore drainage requirements
Fills	Minimise height.	Loose or poorly compacted fill, which, if it fails, may flow a
	Strip vegetation and topsoil and key into natural slopes prior to filling.	considerable distance including onto property below.
	Use clean fill materials and compact to engineering standards.	
	Batter to appropriate slope or support with engineered retaining wall.	Block natural drainage lines.

GUIDELINES FOR HILLSIDE CONSTRUCTION

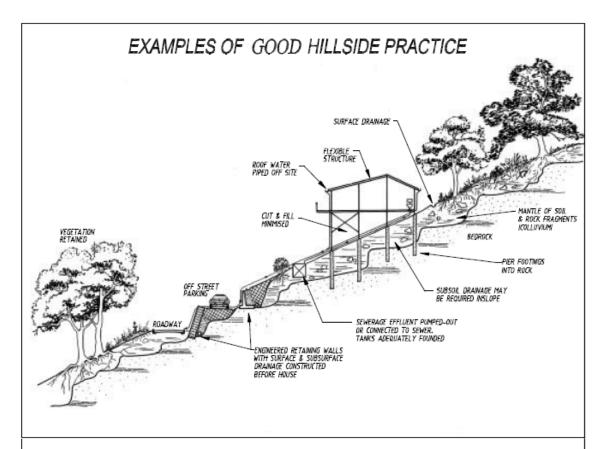
	GOOD ENGINEERING PRACTICE	POOR ENGINEERING PRACTICE
	Provide surface drainage and appropriate subsurface drainage.	Fill over existing vegetation and topsoil. Include stumps, trees, vegetation, topsoil, boulders, building rubble etc in fill.
Rock Outcrops and Boulders	Remove or stabilise boulders which may have unacceptable risk.	Disturb or undercut detached blocks or boulders.
	Support rock faces where necessary.	
Retaining Walls	Engineer design to resist applied soil and water forces. Found on rock where practicable.	Construct a structurally inadequate wall such as sandstone flagging, brick or un-reinforced blockwork
	Provide subsurface drainage within wall backfill and surface drainage on slope above.	Lack of subsurface drains and weepholes.
	Construct wall as soon as possible after cut/fill operation.	
Footings	Found within rock where practicable.	Found on topsoil, loose fill, detached boulders or undercut cliffs.
	Use rows of piers or strip footings oriented up and down slope.	bouldere of underout sime.
	Design for lateral creep pressures if necessary.	
	Backfill footing excavations to exclude ingress of surface water.	
Swimming Pools	Engineer designed.	
	Support on piers to rock where practicable.	
	Provide with under-drainage and gravity drain outlet where practicable.	
	Design for high soil pressures which may develop on uphill side whilst there may be little or no lateral support on downhill side.	
Drainage Surface	Provide at tops of cut and fill slopes.	Discharge at top of fills and cuts.
	Discharge to street drainage or natural water courses. Provide general falls to prevent blockage by siltation and incorporate silt traps. Line to minimise infiltration and make flexible where possible. Special structures to dissipate energy at changes of slope and/or direction.	Allow water to pond on bench areas.
Subsurface	Provide filter around subsurface drain.	Discharge roof runoff into absorption trenches.
	Provide drain behind retaining walls.	donono.

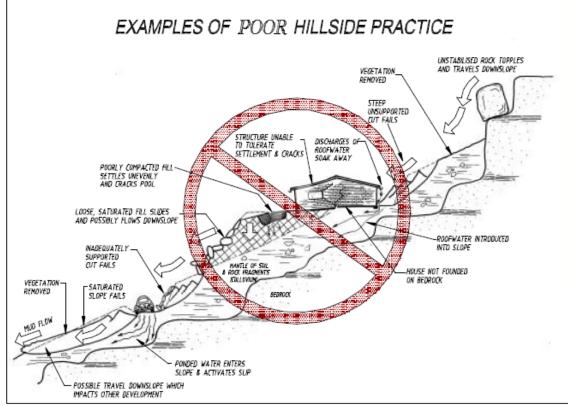
GUIDELINES FOR HILLSIDE CONSTRUCTION

	GOOD ENGINEERING PRACTICE	POOR ENGINEERING PRACTICE
	Use flexible pipelines with access for maintenance.	
	Prevent inflow of surface water.	
Septic and Sullage	Usually requires pump-out or mains sewer systems; absorption trenches may be possible in some areas if risk is acceptable. Storage tanks should be water-tight and adequately founded.	Discharge sullage directly onto and into slopes. Use absorption trenches without consideration of landslide risk.
Erosion Control and Landscaping	Control erosion as this may lead to instability. Revegetate cleared area.	Failure to observe earthworks and drainage recommendations when landscaping.
DRAWINGS AND SITE VI	SITS DURING CONSTRUCTION	
Drawings	Building application drawings should be viewed by geotechnical consultant	
Site Visits	Site visits by consultant may be appropriate during construction	
INSPECTION AND MAINT	ENANCE BY OWNER	
Owner's Responsibility	Clean drainage systems; repair broken joints in drains and leaks in supply pipes. Where structural distress is evident see advice.	
	If seepage observed, determine causes or seek advice on consequences.	

Source:

Landslide Risk Management Concepts and Guidelines as presented in Australian Geomechanics News Volume 35 No 1, March 2000.





Source: Landslide Risk Management Concepts and Guidelines as presented in Australian Geomechanics News Volume 35 No 1, March 2000.

Attachment 2
DCP Concept Plan
DCP Concept Plan

