

Development Application – Stage 2 Residential Subdivision, Gregory Hills

October 2010

Development Application

Stage 2 Residential Subdivision, Gregory Hills

Table of Contents

1	INTRODUCTION.....	4
2	BACKGROUND.....	4
2.1	Vision for Gregory Hills.....	4
2.2	Location and Context	4
2.3	Site Description and Analysis.....	5
3	PROPOSAL.....	7
4	ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979.....	8
4.1	Section 91 – Integrated Development	8
4.1.1	National Parks & Wildlife Act 1974	8
4.1.2	Rural Fires Act 1997	9
5	PLANNING CONTEXT (ENVIRONMENTAL ASSESSMENT UNDER SECTION 79C)	9
5.1	Environmental Planning Instruments	9
5.1.1	State Environmental Planning Instruments	9
5.2	NSW RFS Planning for Bush Fire 2006 (PBF 2006)	15
5.3	Development Control Plans.....	16
5.3.1	Turner Road Precinct Development Control Plan 2007.....	16
5.3.2	Dwelling Yield.....	19
5.3.3	Road Cross Sections.....	19
5.4	Impacts of Development.....	20
5.5	Site Suitability.....	21
5.6	Public Interest	22
6	LANDSCAPING	22
7	SERVICING	22
8	EARTHWORKS	22
9	CONCLUSION	22

APPENDICES

Appendix 1	Subdivision Plans
Appendix 2	Bushfire Protection Assessment
Appendix 3	Vegetation Management Plan
Appendix 4	Traffic Impact Assessment
Appendix 5	Traffic Noise Assessment
Appendix 6	Stormwater Management Cover Letter
Appendix 7	Central Hills Business Park Basin Report
Appendix 8	Stormwater Management Strategy for Gregory Hills DA1 and DA2
Appendix 9	Engineering Report and Designs
Appendix 10	Salinity Report
Appendix 11	Phase 2 Environmental Assessment
Appendix 12	Landscape Plans
Appendix 13	Road Cross Sections Plan

FIGURES

Figure 1	Location Plan
Figure 2	Site Plan

TABLES

Table 1	Compliance with Turner Road DCP 2007
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1 INTRODUCTION

On behalf of Dart West Developments, we provide this Statement of Environmental Effects (SEE) that seeks approval for the residential subdivision of Stage 2 of the Gregory Hills development area.

The subject site forms part of the NSW Growth Centres Commission South West Growth Centre, and lies within the Turner Road Precinct. The subject site is currently zoned R1 General Residential and E4 Environmental Living under the amended Sydney Region Growth Centres SEPP.

The proposed development incorporates the subdivision of Stage 2 to create 285 residential allotments. Access will be achieved via Donovan Boulevard which was approved under DA No. 1193/2007.

2 BACKGROUND

2.1 *Vision for Gregory Hills*

The vision for Gregory Hills is to create a quality integrated business and residential development providing a range of employment and housing opportunities which will service both the local and regional community, recognising the regional significance of this site in terms of both the South West Growth Centre and established surrounding neighbourhoods.

The primary objective is to achieve an integrated and sustainable benchmark development embracing transit oriented principles which deliver high quality residential, retail, employment, service recreational and entertainment uses.

Delivery of this vision will be achieved through a strong commitment to providing a high quality employment area which is serviced by public transport and contributes to the quality of the neighbourhood by providing a range of employment opportunities.

2.2 *Location and Context*

The Gregory Hills land holding, comprises 235 hectares and is located 3 kilometres to the north of the Narellan Town Centre along Camden Valley Way, and 3.5 kilometers northwest of Campbelltown along the future Gregory Hills Drive (formerly Badgally Road). Gregory Hills is positioned centrally between a number of regional centres in Sydney's South West. Liverpool is 20 kilometres to the northeast, Campbelltown 3.5 kilometres to the southeast and Camden 9 kilometres to the southwest.

The subject site lies on the southern boundary of the development area and is east of the Central Hills Business Park. Stage 1 of Gregory Hills is located to the north, while future residential development (currently semi-rural allotments fronting Turner Road) abuts the southern boundary. The Gregory Hills Town Centre and Sales and Information Centre is located approximately 600 metres to the northeast. Donovan Boulevard, identified as a collector road within the Turner Road DCP, provides access into the development and provides a link to Gregory Hills Drive and future residential development within Gregory Hills.

The proposal maintains the principles of the layout and road hierarchy proposed under the adopted Turner Road Indicative Layout Plan. The proposed layout provides a grid based road pattern which ensures that future residents are serviced by highly connected pedestrian and vehicle movement networks.

Figure 1 (below) provides a locality plan which shows the subject site in context within the surrounding area.

Figure 1 – Location Plan



2.3 Site Description and Analysis

The subject site has an area of 22.43ha and comprises of undulating rural land. The proposal incorporates Lots 91 and 92 on DP 1137298.

The land has been highly modified as a result of farming and land grazing activities. As a result there is limited existing vegetation, and development construction works will have a minimal impact on vegetation (Refer to Site Plan).

Small portions of land have been earthworked as part of a previous bulk earthwork application (DA No. 985/2009). A Construction Certificate for bulk earthworks has also been approved for the area, under CC 985/2009 – Bulk Earthworks.

The site gently slopes upwards from the south western corner, with a steeper incline located in the centre of the site. The highest points are located in the south east corner along the southern boundary of the Stage 2 area.

Figure 2 – Site Plan



3 PROPOSAL

This Development Application seeks approval for the residential subdivision of the Gregory Hills Stage 2 development area. The proposal seeks consent for the creation of 285 residential allotments and retaining structures, associated earthworks and construction of roadways, services, landscaping and associated subdivision works.

Construction works associated with this Development Application will incorporate the following:

- Earthworks associated with the construction of roadways, servicing, storm water devices and allotments;
- Provision of required services;
- Construction of roadways associated with the development area;
- Riparian corridor treatments;
- Landscaping of streetscape areas;
- Landscaping of the buffer park adjoining the Central Hills Business Park; and
- Retaining structures.

Subdivisional Works

The subdivision design includes lots ranging from 375m² to 822m² in size.

Retaining walls have been incorporated into the subdivisional works to produce a better design outcome for the residential allotments. The retaining walls will be constructed from split-face blocks to be consistent with the walls approved in Stage 1 (DA No. 1193/2007 and 1194/2007). The wall located on the southern boundary of Stage 2 will be constructed as a cast in-situ concrete to avoid entering neighbouring properties during subdivision works.

There are three types of walls included in the design. Type A will be 0-1m in height, type B will be 1-1.5m in height and type C will be walls over 1.5m.

Refer to Appendix 1 for subdivision plans and Appendix 9 for detailed engineering plans on the design and location of retaining walls.

Riparian Works

Riparian works are to be undertaken on the north-west boundary of the subject site as part of a larger riparian corridor area. The area affected by the riparian works extends up the riparian corridor along the boundary with the Central Hills Business Park to Gregory Hills Drive.

The area subject to riparian works is separated into four Management Zones to define the type of works and plantings within the riparian corridor. The works within the Stage 2 proposal incorporate Management Zones 1 to 4 (Refer to Vegetation Management Plan in Figure 2).

Management Zone 2 is the core riparian zone area and is centrally located within the riparian corridor. The remaining Management zones are to define works and planting with the vegetated buffer area, which is the interface area between the core riparian zone and either residential roads or employment lands development.

Extensive revegetation works are to be provided in all of the Management Zones, which will largely consist of Shale Plain Woodland and a River-flat Eucalypt Forest. Typically Management Zone 2 will have dense plantings with trees, shrubs and grasses. The vegetated buffer areas will be predominately grasses with some

shrubs within Management Zones 1 and 3. There are no stream works included in this proposal as the stream is located outside the application area.

Parks and Open Space/Interface with Employment Lands

The western boundary of the Stage 2 development area is formed by the Central Hills Business Park. It is proposed that a park be located at the employment lands interface to form a buffer and provide visual privacy and amenity to residents within Stage 2.

The buffer park has an area of approximately 1ha and is proposed to be landscaped with trees and tall screening plants, shrubs, grasses. At the southern end of the buffer park, two drainage basins inclusive of landscape planting are proposed. In this area there is also a pedestrian access link between residential and employment lands which was approved as part of the Development Application for the Central Hills Business Park. A shelter and seating is also to be provided within the open grassed area.

Refer to Appendix 12 for the detailed Landscape Plans.

Drainage Basins

As outlined above, there are two drainage basins located within the Stage 2 site area and will be located within the buffer park on the western boundary. These basins have been designed as part of the Central Hills Business Park development and will be constructed as part of the Stage 1 works for that development. This Stage 1 Construction Certificate application is currently with Council for assessment. No significant changes are required to these basins as part of the current proposal, with the basin design having been produced to accommodate for this Stage 2 residential subdivision.

Two additional drainage basins are located adjacent to the northern boundary of Stage 2 and were approved under DA No. 1193/2007. All four basins will facilitate stormwater management and water quality for the entire Stage 2 development.

Section 88B Restriction

It is proposed that a covenant be placed on lots 2434-3437 under Section 88B of the Conveyancing Act 1919. It is proposed that lots with access to Road 9 be restricted to plain concrete only for the driveway crossovers.

As outlined above, the vision for Gregory Hills is to create a high quality residential development. The proposal assists in the delivery of this vision by providing the opportunity for a range of high quality residential allotments which will enable quality homes to be easily constructed that will contribute to the development of a vibrant and energetic neighbourhood.

4 ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

4.1 Section 91 – Integrated Development

Section 91 of the Environmental Planning & Assessment (EP&A) Act 1979 outlines development which is considered to be Integrated Development. Integrated Development requires concurrence/approval under a variety of Acts.

The proposal is identified as Integrated Development under Section 91 of the EP & A Act 1979 as detailed below:

4.1.1 National Parks & Wildlife Act 1974

During preparation of the Turner Road Indicative Layout Plan, a number of Aboriginal Heritage conservation areas were identified within the Precinct. It is

noted that none of these conservation areas are located within the development site.

An Aboriginal Heritage Impact Permit has now been issued for the Gregory Hills development area, inclusive of the subject site, by the Department of Environment, Climate Change and Water under Section 87 & 90 of the National Parks and Wildlife Act 1974.

The site does not contain any Aboriginal items which are required to be protected or incorporate any aboriginal conservation areas.

4.1.2 Rural Fires Act 1997

Section 100B of the Rural Fires Act requires referral of development proposals for residential purposes to the NSW RFS where the development area is identified as Bush Fire Prone on Council's Bush Fire prone Land Map.

The subject land is identified as bush fire prone on the Bush Fire Prone Land Map dated 4 September 2009. Therefore, Integrated Development referral to the NSW RFS is required.

5 PLANNING CONTEXT (ENVIRONMENTAL ASSESSMENT UNDER SECTION 79C)

5.1 Environmental Planning Instruments

5.1.1 State Environmental Planning Instruments

State Environmental Planning Policies

State Environmental Planning Policy (Sydney Region Growth Centres) 2006

The Growth Centres SEPP coordinates release areas within North-West and South-West Sydney Metropolitan Region. This SEPP rezoned the subject land to provide for future residential development.

Zoning:

The subject area is zoned 'R1 General Residential' and 'Zone E4 Environmental Living' under SEPP (Sydney Region Growth Centres) 2006.

Zone Objectives:

R1 General Residential

- To provide for the housing needs of the community.
- To provide for a variety of housing types and densities.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To support the well being of the community, including educational, recreational, community, religious and other activities and, where appropriate, neighbourhood shops if there will be no adverse effect on the amenity of proposed or existing nearby residential development.
- To allow for small scale kiosks, function centres, restaurants and markets that support the primary function and use of recreation areas, public open space and recreation facilities located within residential areas.
- To allow for small scale intensity tourist and visitor accommodation that does not interfere with residential amenity.

- To provide for a variety of recreational uses within open space areas.

Zone E4 Environmental Living

- To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values.
- To ensure that residential development does not have an adverse effect on those values.
- To preserve and maintain the natural values of core riparian areas and to allow development where it can be demonstrated that the development will not destroy, damage or have any other adverse effect on those values.
- To ensure that flood prone land is used in a manner appropriate to its environmental characteristics

Permissibility:

The proposed development is permissible with Council consent.

Response:

The proposed development is permissible and achieves the objectives through developing residential allotments within Gregory Hills that will provide a variety of housing needs for future residents.

State Environmental Planning Policy (Infrastructure) 2007

The Infrastructure SEPP aims to facilitate the delivery of development in an efficient manner. Schedule 3 of the SEPP details the circumstances when the Roads and Traffic Authority (RTA) should be made aware of and provided the opportunity to make a representation on Development Applications.

Response:

Under Schedule 3 of the Infrastructure SEPP, the proposal requires referral to the RTA.

State Environmental Planning Policy No 55 – Remediation of Land (SEPP 55)

SEPP 55 is a NSW-wide planning approach to the remediation of contaminated land. When considering a Development Application, the consent authority must observe the requirements of SEPP 55. The significant clauses of SEPP 55 are clauses 7 and 8, which are outlined below.

Clause 7 - Contamination and remediation to be considered in determining development application

Under Clause 7, a consent authority must not consent to the carrying out of any development on land unless:

- (a) It has considered whether the land is contaminated, and*
- (b) If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
- (c) If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

Response:

As part of the background studies to inform the Turner Road Indicative Layout Plan and Development Control Plan, a Phase 1 Contamination Assessment was undertaken. Figure 23 of the Turner Road DCP identifies that there are no Areas of Environmental Concern located within the development area.

Sydney Regional Environmental Plan No 20 (SREP 20)

SREP 20 applies to the entire Hawkesbury-Nepean River catchment and sets out policy framework to protect the environmental significance of the catchment. The relevant Section in SREP 20 is Clause 6 which includes policies and strategies that must be considered when considering development proposals within the catchment.

Clause 6 - Specific planning policies and recommended strategies

(1) Total catchment management

Policy: Total catchment management is to be integrated with environmental planning for the catchment.

Strategies:

- (a) *Refer the application or other proposal for comment to the councils of each adjacent or downstream local government area which is likely to suffer a significant adverse environmental effect from the proposal.*
- (b) *Consider the impact of the development concerned on the catchment.*
- (c) *Consider the cumulative environmental impact of development proposals on the catchment.*

Response:

- (a) **No downstream Local Government area will suffer any significant environmental impact.**
- (b) **There will be minimal to no impact on the catchment from the development.**
- (c) **There will be minimal to no cumulative impact on the catchment from the development.**

(2) Environmentally sensitive areas

Policy: The environmentally quality of environmentally sensitive areas must be protected and enhanced through careful control of future land use changes and through management and (where necessary) remediation of existing uses.

Note: Environmentally sensitive areas in the Hawkesbury-Nepean catchment are: the river, riparian land, escarpments and other scenic areas, conservation area sub-catchments, national parks and nature reserves, wetlands, other significant flora and fauna habitats and corridors, and known and potential acid sulphate soils.

Strategies:

- (a) *Rehabilitate parts of the riverine corridor from which sand, gravel or soil are extracted so that attached aquatic plant beds are replaced and water quality and faunal habitats improved.*
- (b) *Minimise adverse impacts on water quality, aquatic habitats, riverine vegetation and bank stability.*
- (c) *Minimise direct and indirect impacts on land reserved or dedicated under the Forestry Act 1916 and conservation area sub-catchments in order to protect water quality and biodiversity.*
- (d) *Protect wetlands (including upland wetlands) from future development and from the impacts of land use within their catchments.*
- (e) *Consider the need to include buffer zones (such as adequate fire radiation zones) for proposals on land adjacent to land reserved or dedicated under the National Parks and Wildlife Act 1974 or the Forestry Act 1916.*
- (f) *Consider the views of the Director-General of National Parks and Wildlife about proposals for land adjacent to land reserved or dedicated under the National Parks and Wildlife Act 1974.*
- (g) *Consideration should be given to the impact of the development concerned on the water table and the formation of acid sulphate soils.*
- (h) *New development in conservation area sub-catchments should be located in areas that are already cleared.*

Response:

- (a) Not applicable as proposal does not include extraction of gravel, sand or soil from a riverine corridor.
- (b) The proposal will not impact on water quality as a comprehensive strategy to manage stormwater and ensure water quality across the Turner Road Precinct has been adopted.
- (c) Not applicable as the proposed development does not directly or indirectly impact on land dedicated or reserved under the Forestry Act 1916.
- (d) Not applicable as the development will not adversely impact on the protection of wetlands.
- (e) Not applicable as the development site is not adjacent to land reserved or dedicated under the National Parks and Wildlife Act 1974.
- (f) Not applicable as the development site is not adjacent to land reserved or dedicated under the National Parks and Wildlife Act 1974.
- (g) The development will have a negligible impact.
- (h) The site is cleared of vegetation.

(3) Water quality

Policy: Future development must not prejudice the achievement of the goals of use of the river for primary contact recreation (being recreational activities involving direct water contact, such as swimming) and aquatic ecosystem protection in the river system. If the quality of the receiving waters does not currently allow these uses, the current water quality must be maintained, or improved, so as not to jeopardise the achievement of the goals in the future. When water quality goals are set by the Government these are to be the goals to be achieved under this policy.

Note: Aquatic ecosystems and primary contact recreation have the same meanings as in the document entitled Australian Water Quality Guidelines for Fresh and Marine Waters, published in 1992 by the Australian and New Zealand Environment and Conservation Council.

Strategies:

- (a) *Quantify, and assess the likely impact of, any predicted increase in pollutant loads on receiving waters.*
- (b) *Consider the need to ensure that water quality goals for primary contact recreation and aquatic ecosystem protection are achieved and monitored.*
- (c) *Approve development involving primary contact recreation or the withdrawal of water from the river for human contact (not involving water treatment), such as showers, only in locations where water quality is suitable (regardless of water temperature).*
- (d) *Do not carry out development involving on-site disposal of sewage effluent if it will adversely affect the water quality of the river or groundwater. Have due regard to the nature and size of the site.*
- (e) *Develop in accordance with the land capability of the site and do not cause land degradation.*
- (f) *Consider the need for an Erosion and Sediment Control Plan (to be in place at the commencement of development) where the development concerned involves the disturbance of soil.*
- (g) *Minimise or eliminate point source and diffuse source pollution by the use of best management practices.*
- (h) *Site and orientate development appropriately to ensure bank stability. Plant appropriate native vegetation along banks of the river and tributaries of the river, but not so as to prevent or inhibit the growth of aquatic plants in the river, and consider the need for a buffer of native vegetation.*
- (i) *Consider the impact of the removal of water from the river or from groundwater sources associated with the development concerned.*
- (j) *Protect the habitat of native aquatic plants.*

Response:

- (a) There is no predicted increase in pollutant loads on receiving waters.
- (b) It is considered that the extent of the proposed development combined with the proximity to recreation and aquatic ecosystems does not warrant testing or monitoring.
- (c) Not applicable as the proposal does not seek approval for human contact with water withdrawn directly from a river.
- (d) Not applicable as no onsite effluent disposal is proposed.
- (e) Development will not result in land degradation.
- (f) Adequate erosion and sediment controls are to be implemented as part of the works.
- (g) Best management practices are to be employed.
- (h) Not applicable as the development site is not in close proximity to a river bank.
- (i) Not applicable as the proposal does not involve the withdrawal of water from a river or groundwater resource.
- (j) Not applicable as the proposal will not impact on the habitat of native aquatic plants.

(4) Water quantity

Policy: Aquatic ecosystems must not be adversely affected by development which changes the flow characteristics of surface or groundwater in the catchment.

Strategies:

- (a) *Future development must be consistent with the interim or final river flow objectives that are set for the time being by the Government.*
- (b) *Ensure the amount of stormwater run-off from a site and the rate at which it leaves the site does not significantly increase as a result of development. Encourage on-site stormwater retention, infiltration and (if appropriate) reuse.*
- (c) *Consider the need for restricting or controlling development requiring the withdrawal or impoundment of water because of the effect on the total water budget of the river.*
- (d) *Consider the impact of development on the level and quality of the water table.*

Response:

- (a) Not applicable as the proposal will not significantly impact on river flows.
- (b) Stormwater run-off from a site will discharge into a drainage system designed to accommodate the predicted flows resulting from residential and associated development across the Turner Road Precinct. Accordingly, the rate of post-development flows from the site will match pre-development flows.
- (c) Not applicable as the proposal will not significantly impact on the total water budget of a river.

- (d) Not applicable as it is not considered the proposed development will affect the level and quality of the water table.

(5) Cultural Heritage

Policy: The importance of the river in contributing to the significance of items and places of cultural heritage significance should be recognised, and these items and places should be protected and sensitively managed and, if appropriate, enhanced.

Strategies:

- (a) *Encourage development which facilitates the conservation of heritage items if it does not detract from the significance of the items.*
- (b) *Protect Aboriginal sites and places of significance.*
- (c) *Consider an Aboriginal site survey where predictive models or current knowledge indicate the potential for Aboriginal sites and the development concerned would involve significant site disturbance.*
- (d) *Consider the extent to which heritage items (either identified in other environmental planning instruments affecting the subject land or listed in Schedule 2) derive their heritage significance from the river.*

Response:

An Aboriginal Heritage Impact Permit has now been issued for the Gregory Hills development area, inclusive of the subject site, by the Department of Environment, Climate Change and Water under Section 87 & 90 of the National Parks and Wildlife Act 1974.

5.2 NSW RFS Planning for Bush Fire 2006 (PBF 2006)

Planning for Bush Fire Protection 2006 outlines the planning framework for developments close to land likely to be affected by bush fire. It is also applicable to the subdivision of land for residential purposes and those developments which are considered a special fire protection purpose (i.e. child care centres).

PBF 2006 outlines legislative provisions and performance criteria, together with other options to achieve compliance with the policy when building in bush fire prone areas. This includes performance criteria for determining asset protection zones (APZ) to protect development from potential damage.

The general principles underlying Planning for Bush Fire Protection 2006 are:

- Protection measures are governed by the degree of threat posed to a development;
- A minimum setback from a hazard is always required, i.e. a defensible space;
- The greater the setback from the hazard, the lower the subsequent bush fire protection construction standards required;
- The smaller the interface a development has fronting the bush fire threat, the less the opportunity for bush fire to threaten the development;
- Bush fire protection measures are contained within the 'overall' development and not on adjoining lands, other than in exceptional circumstances; and

- No development in a bush fire prone area can be guaranteed to be entirely safe from bush fires.

Response:

The land is identified as bush fire prone on the Bush Fire Prone Land Map and Figure 21 of the Turner Road DCP identifies that APZ areas are required to be provided within the development area. A Bushfire Protection Assessment prepared by EcoLogical Australia includes details on APZ areas and construction standards for the development. (Refer to Appendix 2).

5.3 Development Control Plans

5.3.1 Turner Road Precinct Development Control Plan 2007

Section 79C of the EP & A Act 1979 requires assessment of this Development Application under the provisions of the Turner Road Precinct Development Control Plan (the DCP) 2007.

Table 1 below outlines design standards under the adopted DCP and the proposed design outcome. Further details relating to the DCP are outlined in detail following this table.

Table 1: Compliance with Turner Road DCP 2007

DCP	Proposed	Complies
2.3 Residential Density Targets		
<ul style="list-style-type: none"> • The residential density target for the Turner Road Precinct is 4,020. 	The proposal incorporates 285 residential lots.	Yes. Total yield of 285 dwellings. Balance to be accommodated in future development.
<ul style="list-style-type: none"> • The subject site is identified for general residential development Turner Road Indicative Layout Plan. 	The proposal accommodates general residential development.	Yes
<ul style="list-style-type: none"> • The development is identified as Precinct I which has a Minimum Dwelling Yield of 252. 	It is proposed that 285 residential allotments will be provided within Stage 2.	Yes
3.1 Street Network and Design		
<ul style="list-style-type: none"> • Street network/cross section in accordance with Figures 5 and 7-13. 	Road layout and design is generally in accordance with Figures 5 and road cross sections meet the DCP minimum requirements in Figures 7-13 as shown in Subdivision Plans (Appendix 1). A local road connection to the Turner Road Small Landholdings, which abuts the buffer park adjacent to the Central Hills Business Park has not been provided. This is due to the level differences and grades between the design levels of the Stage 2 area and existing future	Yes

	residential land to the south. The grades are considered to be inappropriate for a local road connection. In addition, the South Spine Road 2 will provide the suitable vehicular connection with the future residential land to the south and the buffer park will continue to facilitate pedestrian and cycle connections.	
3.2 Pedestrian and Cycle Network		
<ul style="list-style-type: none"> Key pedestrian and cycleway routes are to be provided in accordance with Figure 14. 	Key pedestrian and cycleway routes are in accordance with Figure 14.	Yes
3.3 Public Transport Network		
<ul style="list-style-type: none"> Bus Routes in accordance with Figure 15. 	South Spine 2 allows for a bus route in accordance with Figure 15.	Yes
4.1 Public Parks and Landscape Strategy		
<ul style="list-style-type: none"> Public parks to be in accordance with Figure 16. 	Public open space is located in accordance with Figure 16.	Yes
6.1 Riparian Corridors		
<ul style="list-style-type: none"> Riparian corridors provided in accordance with Figure 16. 	The proposal is consistent with the objectives and controls in Section 6.1. The proposed riparian works will significantly restore and enhance an existing natural drainage area that currently has low environmental significance. In addition, the proposed works will have a positive impact on water quality and the environmental value of the water course. A VMP has been prepared in accordance with the Oran Park and Turner Road Waterfront Land Strategy.	Yes
6.2 Flooding and Water Cycle Management		
<ul style="list-style-type: none"> No residential allotments located at a level lower than 1 in 100 year ARI. 	Stormwater reports confirm that drainage basins within Gregory Hills will ensure no residential lots are located at a level lower than 1 in 100 year ARI. Refer to Appendices 6-8.	Yes
6.3 Salinity and Soil Management		
<ul style="list-style-type: none"> Soil and water management plans prepared in accordance Camden's Council's Erosion and Sediment Control Policy. 	A salinity management plan has been prepared in association with this application. Refer to Appendix 10.	Yes

6.6 Bushfire Hazard Management		
<ul style="list-style-type: none"> The indicative location and widths of APZ's to be provided in accordance with Figure 21. 	APZ areas are in accordance with Figure 21. Refer to Bushfire Protection Assessment (Appendix 2).	N/A
6.7 Tree Retention and Biodiversity		
<ul style="list-style-type: none"> Significant vegetation identified at Figure 22 is to be retained within open space. 	<p>No significant vegetation as mapped on Figure 22 in the DCP is contained within the development site.</p> <p>Furthermore, Bio-diversity Certification of the whole Turner Road Precinct has been achieved.</p>	Yes
6.8 Contamination Management		
<ul style="list-style-type: none"> Developments in AEC as identified at Figure 23, accompanied by a Stage 2 Environmental Site Investigation. 	A Phase 1 Contamination Assessment identified no AECs requiring remediation within the application area. The Phase 2 contamination assessment has confirmed the findings of the Phase 1 Assessment. However, the Phase 2 assessment also identifies new site features relating to the site construction works since 2007. As a result there are 3 new AECs that have been identified with all requiring further assessment. The Phase 2 assessment confirms the site is environmentally suitable for residential development subject to the further investigations on the 3 AECs.	Yes
7.1 Neighbourhood and Subdivision Design		
<ul style="list-style-type: none"> Street blocks to be a maximum of 250m long and 70m wide. 	<p>The proposal achieves compliance with all standards outlined under Section 7.1. Whilst there are a few street blocks over 250m, the DCP allows for street blocks over 250m where pedestrian connectivity and traffic calming objectives are achieved. Moreover, the road pattern reflects the adopted ILP.</p> <p>The Traffic Assessment submitted with the proposal confirms that appropriate levels of traffic calming have been incorporated into the subdivision. In addition, high levels of pedestrian connectivity with open spaces and other major destinations will be maintained.</p>	Yes
<ul style="list-style-type: none"> Minimum lot size for detached houses is 250m², and depth of 20m. 	Minimum lot size proposed under this application is 375m ² .	
<ul style="list-style-type: none"> No more than 3 lots in a row with the same frontage. 	The subdivision design does not incorporate any more than 3 lots in a row with the same width frontage	

As outlined above, the proposal achieves full compliance with the relevant provisions of the Turner Road Development Control Plan.

5.3.2 Dwelling Yield

Section 2.3 of the Turner Road Precinct DCP 2007 outlines residential density targets for the Turner Road Precinct as a whole, and provides sub-precinct dwelling yields to guide the progressive development of the site.

The overall residential dwelling target for the Turner Road Precinct is 4,020. Stage 2 Gregory Hills is identified as Precinct I, which require a minimum dwelling yield of 252.

The total number of residential lots proposed in Stage 2 is 285, which exceeds the minimum lot yield outlined in the DCP by 33 lots.

5.3.3 Road Cross Sections

Section 3.1 of the Turner Road Precinct DCP 2007 examines the street network and design of the precinct. Refer to Appendix 13 for a Road Cross Sections Plan.

The street network proposed achieves the principles of providing a permeable road network, which encourages walking and cycling, in addition to minimising the use of cul-de-sacs. The streets and roundabouts have been designed in accordance with the Councils Engineering Design Specifications. Intersection treatments have been designed to clearly identify the road hierarchy and create well defined intersections.

Laneways

A single ended laneway located adjacent to public open space allows dwellings to front the open space while still maintaining access. The laneway is designed with a 1m verge adjoining open space, a 6m carriageway and a 3.7m verge incorporating a 1.2m footpath.

Local Roads

The proposed local roads have been designed with a view to providing pedestrian friendly localised streetscapes which slow vehicle traffic speeds, while maintaining appropriate levels of on street parking and incorporating definitive green edges to the roadways.

Local Roads have been provided with a carriageway width of 7.4m which exceeds the minimum DCP standards and allows for two 3.7m travelling lanes. Verge widths of 3.7m have been provided to allow high quality landscaped streetscapes which provide a clear green edge to the street environment. A 1.2m footpath on one side of Local Road carriageways will be built.

Local Roads adjacent to open space will include a 3.7m verge including a 1.2m footpath, a 7.4m carriageway and a 1m verge adjacent to open space.

Collector Roads

The Stage 2 development area includes one collector level road which acts to connect the local residential areas to Donovan Boulevard.

The Collector Road identified as South Spine Road 2, which runs off Donovan Boulevard, extends in a southwest direction through the Stage 2 site to the future residential development area of the Turner Road Small Landholdings. This roadway has been designed to provide a consistent streetscape with collector roads across the Gregory Hills development.

South Spine Road 2 has been designed to incorporate a carriageway of 10.4m, allowing for two 5.2m travel lanes with space for on street parking. Verges will be a width of 3.7m on one side and 5.0m on the other side, allowing for a 1.2m footpath and a 2.5m dual use pathway respectively.

Powerline Corridor Road and Laneway

An existing 132Kv powerline that traverses the site is proposed to be relocated within the Stage 2 development area, which is consistent with the relocation proposed under the adopted Turner Road ILP and Gregory Hills Stage 1 Residential Subdivision.

There are two types of roads within the powerline corridor roadway area, which has a road reserve width of 23.8m. This section of road has been designed to accommodate Integral Energy design requirements whilst maintaining a highly attractive streetscape that minimises the visual impact of the powerlines. In addition, these roads have been designed to ensure that a minimum clearance of 2.4m is maintained at all times from the face of kerb to the outside edge of the powerline poles.

The main section of road, which intersects with Donovan Boulevard, has a carriageway of 7.4m with a 3.7m verge to the east. The western verge is 12.7m to accommodate the powerline. The 7.4m carriageway provides for two 3.7m travel lanes and the 3.7m verge to the east will incorporate a 2.5m sharepath.

Also within the powerline road reserve is a laneway which provides access to two residential allotments (Lots 2439 and 2440). The carriageway is 6m in width with a 3.7m verge to the residential lots to the east. The verge to the west, which contains the powerline has a verge of 14.1m.

Details on the above cross sections are provided in the Traffic Impact Assessment (Appendix 4).

5.4 Impacts of Development

Conservation/Biodiversity

The biodiversity certification of the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 was gazetted on 14 December 2007.

As such, a Species Impact Statement is not required.

Bushfire

The land is identified as bush fire prone on the Bush Fire Prone Land Map and Figure 21 of the Turner Road DCP identifies that APZ areas are required to be provided within the development area.

A Bushfire Protection Assessment has been prepared by EcoLogical Australia. The report details protection measures to be implemented that provide bushfire protection to the development, including Asset Protection Zones and construction standards. The level of protection will be consistent with standards contained within the Rural Fire Service's *Planning for Bushfire Protection*. A copy of the report can be found in Appendix 2.

Vegetation

EcoLogical Australia has prepared a Vegetation Management Plan, included in Appendix 3. The area subject to riparian works is separated into four Management Zones to define the type of works and plantings within the riparian corridor.

Vegetation will largely consist of Shale Plain Woodland and a River-flat Eucalypt Forest. The core riparian zone area will be planted with dense plantings with trees,

shrubs and grasses. The vegetated buffer areas will be predominantly grasses with shrubs.

Traffic Impact

Cardno have prepared a Traffic Assessment that examined the road design and layout of the proposed development. It confirmed that the design and layout is appropriate and there will be no traffic or transport issues as a result of development (Refer to Appendix 4).

Noise Impact

A Traffic Noise Assessment has been prepared by Acoustic Logic and investigates the noise impact on proposed residential development. It recommends standard acoustic treatments would be sufficient to minimise noise impact on development and will meet standards outlined in the Turner Road DCP.

Stormwater

Stormwater management issues have all been previously addressed in reports prepared by Cardno and Brown Consulting. A letter from Brown Consulting (Appendix 6) confirms these reports remain relevant.

These supporting reports can be found in Appendices 7 and 8 respectively.

Salinity

A Salinity Management Plan has been prepared by Douglas Partners and is included in Appendix 10.

This report confirms that the site is suitable for the development providing adequate management practices are implemented in conjunction with construction works.

Contamination

A Phase 2 Environmental Site Assessment has been prepared by Douglas Partners and is included in Appendix 11.

A Phase 1 Contamination Assessment identified no AECs requiring remediation within the application area. The Phase 2 contamination assessment confirmed the findings of the Phase 1 Assessment. However, the Phase 2 assessment also has identified new site features that relate to the site construction works since 2007. As a result there are 3 new AECs that have been identified with all requiring further assessment. The most significant is the contractor works compound, where future testing an assessment will be necessary. The other two AECs relate to stockpiles where visual assessment should be sufficient following their removal.

The Phase 2 assessment confirms the site is environmentally suitable for residential development subject to the further investigations on the 3 AECs.

5.5

Site Suitability

As outlined above, the subject site falls within the NSW Growth Centres Commission South West Growth Centre, forming part of the Turner Road Precinct and is zoned R1 General Residential and E4 Environmental Living under the amending Sydney Region Growth Centres SEPP.

The Turner Road Precinct Plan guides land use development across the site and has established land which is suitable for residential development. It is in close proximity to both the future Gregory Hills Town Centre and the Central Hills Business Park.

The development complies with all State, regional and local Environmental Planning Instruments relevant to the site, and also complies with the NSW Government's and Camden Council's planning policies.

Land contamination testing and reporting has confirmed that the site is suitable for residential development subject to further investigation of three AECs.

Therefore the site is considered to be highly suitable for residential use, reinforced by the appropriate zoning of the site.

5.6 Public Interest

The development is considered to be in the public interest through contributing to land supply within the NSW South West Growth Centre.

The proposal will provide a range of housing opportunities for future residents in Gregory Hills.

6 LANDSCAPING

Green space within the Stage 2 development area includes the buffer park located on the site's western boundary and a small portion of the riparian corridor located on the northern boundary.

A Landscape Master Plan has been prepared by Distinctive Living Design for the design of the buffer park. It features a range of native plants that provide a landscape theme for the open space forming the north-western boundary of the subject site. The park also includes a pedestrian access link connecting employment and residential areas.

The location of street trees are also included in the design.

The Landscape Master Plan is located in Appendix 12.

7 SERVICING

All essential services and utilities will be included in Stage 2 construction, including electricity, water, gas, sewer and telecommunication infrastructure.

8 EARTHWORKS

It is noted that a portion of land incorporating the western 1/3 of the subject site is subject to a separate bulk earthworks approval. This was approved under DA No. 985/2009 and CC 985/2009 – Bulk Earthworks.

Remaining earthworks will generally be undertaken to ensure that the proposed drainage strategy may be achieved. Engineering plans prepared by Brown Consulting depict details of contour levels and retaining walls which will be achieved through bulk earthworks. Plans can be found in Appendix 9.

9 CONCLUSION

The proposed subdivision of Stage 2 will assist in establishing Gregory Hills as a vibrant and energetic neighbourhood that offers a variety of housing options for future residents, enhanced by high quality streetscaping. It aims to offer a high level of walkability that will help to develop a strong community atmosphere.

The subdivision has been designed to minimise environmental impacts on the existing natural environment through utilising existing natural contours.

The proposal generally complies with relevant objectives and provisions outlined in the Growth Centres SEPP, which has allowed the rezoning of the land for residential use. It is also accurately consistent with the Turner Road Indicative Layout Plan and Development Control Plan as adopted. Furthermore, it complies with all relevant provisions in State and local environmental planning instruments.

In light of the suitability of the development, we respectfully request that Camden Council issue consent to this Development Application in a timely manner.

Appendix

Subdivision Plans

Lean Lackenby & Hayward

Appendix 2

Bushfire Protection Assessment EcoLogical Australia

Appendix 3

Vegetation Management Plan EcoLogical Australia

Appendix 4

Traffic Impact Assessment Cardno

Appendix 5

Traffic Noise Assessment Acoustic Logic

Appendix 6

Stormwater Management Cover Letter

Brown Consulting



Appendix 7

Central Hills Business Park Basin Report Cardno



Appendix 8

Stage 1 Basin Report Brown Consulting



Appendix 9

Engineering Report and Designs Brown Consulting



Appendix 10

Salinity Report Douglas Partners



Appendix 11

Phase 2 Contamination Assessment

Douglas Partners



Appendix 12

Landscape Plan Distinctive Living Designs



Appendix 13

Road Cross Sections Plan Development Planning Strategies

