



## NOTICE OF MEETING

# ENVIRONMENTAL MANAGEMENT COMMITTEE

I hereby give notice that an Ordinary Meeting of the Environmental Management Committee will be held on:-

**DATE:**        **Thursday,    29 January 2004**                    **TIME:**        **12.00 noon**

**VENUE:**       **Civic Centre, 6 Waipareira Avenue, Lincoln, Waitakere City**

to hear submissions on Birdwood Urban Concept Plan and to take any necessary action connected therewith.

19 January 2004

Owena Schuster  
**COMMITTEE SECRETARY**

Telephone (09) 836 8000 extn 8864

### **MEMBERSHIP:**

Councillors	PA	Hulse (Chairperson)
	DA	Yates, JP (Deputy Chairperson)
	DQ	Battersby, JP
	BA	Brady, JP
	JM	Clews, QSO, JP
	RP	Dallow, QPM, JP
	AC	Fenton
	OE	Hoskin, MNZM, JP
	JP	Lawley
	GE	Nash, JP
	VS	Neeson, JP
	GB	Presland
	GW	Russell, JP
	CA	Stone

Mayor, Bob Harvey, QSO, JP (ex officio)

(Quorum 5 members)

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(The reports and recommendations contained in all agendas are reports and recommendations only and are not to be construed, in any way, as Council policy until adopted.)

# WAITAKERE CITY COUNCIL



AGENDA FOR AN ORDINARY MEETING OF THE ENVIRONMENTAL MANAGEMENT  
COMMITTEE TO BE HELD IN THE CIVIC CENTRE, 6 WAIPAREIRA AVENUE,  
LINCOLN, WAITAKERE CITY, ON THURSDAY, 29 JANUARY 2004,  
COMMENCING AT 12.00 NOON.

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**1 APOLOGIES**



**2 PROPOSED PLAN CHANGE 4 - BIRDWOOD URBAN CONCEPT PLAN**

**1.0 INTRODUCTION**

This report addresses issues that relate to Proposed Plan Change 4: Birdwood Urban Concept Plan. The Proposed Plan Change seeks to introduce the Birdwood Urban Concept Plan, which makes provision in the Waitakere City District Plan to enable urban development to occur subject to natural and physical constraints within the Birdwood Urban Concept Plan area.

This report sets out the background to the Birdwood Urban Concept Plan, the various statutory requirements and policy framework, the technical studies undertaken and the consultation carried out. Furthermore the report addresses Section 32 issues and provides an analysis of the various submissions that were received.

**2.0 SUMMARY**

Council's Environmental Management Committee approved Plan Change 4 for notification on 11 March 2003. Subsequently the Plan Change was publicly notified on 23 July 2003 and nine submissions were received. A summary of submissions was notified on 8 September 2003 and two further submissions were received. Issues raised in submissions were generally site specific and from landowners within the Concept Plan area. No submissions were received from any other statutory body or interest group.

Having considered the Proposed Plan Change against the relevant statutory criteria, and having regard to the submissions received, it is recommended that, subject to any contrary or additional evidence submitted at the hearing, the Proposed Plan Change be approved with some amendments.

**3.0 SITE AND SURROUNDS**

The Birdwood Urban Concept Plan Area is located in the northern part of the existing Waitakere City urban area adjacent to the suburb of Massey. It comprises approximately 65.2 hectares and is identified as 'Birdwood Special Area' in the District Plan. A row of urban residential lots fronting Don Buck Road (all of which are identified as 'Living Environment' in the District Plan) form the eastern boundary. Chamberlain Road, which runs between Don Buck Road and Birdwood Road, divides the concept plan area into two parts. The majority of the concept plan area is located south of Chamberlain Road. The balance is comprised in three lots situated between Chamberlain Road and Massey High School. The western boundary for the lower part of the concept plan area is the Chamberlain Stream, which abuts Te Rangi Hiroa Reserve. Further north, existing property boundaries east and north of Chamberlain Road form the western boundary.

To the east of the Birdwood Urban Concept Plan area is the residential suburb of Massey. The Concept Plan area adjoins the eastern boundary of the 'Birdwood Structure Plan Area' and Te Rangi Hiroa Reserve. Don Buck Primary School is situated within the concept plan area and has access from Don Buck Road. Birdwood Primary School is located less than 1 km to the west on Glen Road, with the Massey High School adjacent to the northern boundary.

The topography of the Birdwood Urban Concept Plan area is generally steep, where land slopes to the south and west. Land with a more gentle topography is located immediately west of existing dwellings fronting Don Buck Road in the lower part of the concept plan area and in the northwest above Chamberlain Road. All land within the concept plan area drains into the Chamberlain Stream catchment. The headwaters of the Chamberlain Stream are located above Chamberlain Road. These discharge via an existing culvert under Chamberlain Road to form the main Chamberlain Stream channel. Five minor tributaries discharge to the main stream channel from within the concept plan area.

Existing native vegetation is generally concentrated along the margins of the main Chamberlain Stream channel. These bush areas are interspersed with a variety of exotic trees and weed species. The balance of the concept plan area is generally in pasture with some viticulture located in the central part of the Concept Plan area.

The Birdwood Urban Concept Plan area is currently serviced with reticulated water supply. There are no reticulated stormwater or wastewater services. The capacity of existing wastewater services along Don Buck Road is limited, however provision has been made for future servicing despite the concept plan area being situated outside the Inner Drainage Area. In November 2002, the Environmental Management Committee resolved that an application be made to Watercare Services to include the Birdwood Urban Concept Plan area within the Inner Drainage Area.

#### 4.0 BACKGROUND

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The planning process to develop the Birdwood Urban Concept Plan was initiated in 1998. Technical information gathered in response to submissions on the Proposed Plan specific to the Birdwood Special Area formed the basis of a community workshop in March 1999. This workshop resulted in a draft concept plan that would be subject to geotechnical and stormwater studies to determine its feasibility. The draft concept plan showed a range of densities that included comprehensive, standard and large lot residential areas as well as areas for reserves and a possible road layout, is attached at page A1.

Further technical studies were commissioned in 1999 to investigate stormwater and geotechnical issues. The geotechnical investigation was carried out by Beca Carter Hollings and Ferner and comprised an assessment that identified 'geotechnical zones'. A stormwater study was undertaken by Riley Consultants, firstly to identify issues and then to develop a comprehensive management plan that would form the basis of an application to the Auckland Regional Council for a discharge permit. This work also included an instream ecological assessment by Kingett Mitchell.

A report was presented to the Planning & Regulatory Committee in April 2000 documenting the outcomes of the two studies. This information was also sent to all landowners within the Concept Plan area. Since that meeting, the catchment management plan to address stormwater issues has been completed and a final draft plan prepared.

In late 2002 the final draft plan was sent to all landowners in the concept plan area as well as surrounding landowners within the Birdwood Structure Plan area and properties fronting the western and eastern sides of Don Buck Road bordering the concept plan area. Nine responses were received. These responses are summarised in the Consultation section of this report.

## 5.0 STATUTORY REQUIREMENTS

### 5.1 Resource Management Act 1991 (the Act)<sup>1</sup>

The Resource Management Act provides a statutory framework for the management of natural and physical resources. The purpose of the Act is *'to promote the sustainable management of natural and physical resources'*.

The Resource Management Act defines 'sustainable management' as:

*"managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well being and for their health and safety while -*

- (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) safeguarding the life-supporting capacity of air, water, soil and ecosystems; and*
- (c) avoiding, remedying or mitigating any adverse effects of activities on the environment."*

Section 6 of Resource Management Act relates to 'Matters of National Importance'. Matters of national importance include:

- "(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development;*
- (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development;*
- (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna;*
- (d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers;*
- (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga."*

Section 7 relates to 'Other Matters. Particular regard must be given to:

- "(a) Kaitiakitanga;*
- (b) The efficient use and development of natural and physical resources;*
- (c) The maintenance and enhancement of amenity values;*
- (d) Intrinsic values of ecosystems;*
- (e) Recognition and protection of the heritage values of sites, buildings, places or areas;*
- (f) Maintenance and enhancement of the quality of the environment;*
- (g) Any finite characteristics of natural and physical resources;*
- (h) The protection of the habitat of trout and salmon."*

Section 8 requires that managing the use, development and protection of natural and physical resources, takes into account the principles of the Treaty of Waitangi.

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<sup>1</sup> Plan Change 4 was publicly notified prior to when the Resource Management Amendment Act 2003 came into effect. Therefore, Plan Change 4 is subject to the provisions of the Act as they stood prior to the changes made by the 2003 Amendment Act.

Part III of the Resource Management Act sets out Duties and Restrictions to, amongst other things, subdivision of land. Section 11 states that no person may subdivide unless the subdivision is expressly allowed by a rule in a district plan or resource consent. In addition, Section 17 states that every person has a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on by or on behalf of that person, whether or not that activity is in accordance with a rule in a plan, or a resource consent.

Part IV of the Resource Management Act relates to functions powers and duties of Central and Local Government.

Section 31 sets out functions of territorial authorities for giving effect to the Resource Management Act in its district including:

- “(a) The establishment, implementation, and review of objectives, policies and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district:*
- (b) The control of any actual or potential effects of the use development, or protection of land, including for the purpose of the avoidance or mitigation of natural hazards and the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances:*
- (c) The control of the subdivision of land:*
- (d) The control of the emission of noise and the mitigation of the effects of noise:*
- (e) The control of any actual or potential effects of activities in relation to the surface of water in rivers and lakes:*
- (f) Any other functions specified in this Act.”*

Section 32 of the Resource Management Act requires every territorial authority to consider alternatives, and assess benefits and costs before adopting any objective, policy, rule or other method in relation to its district plan.

- “(a) Have regard to -*
  - (i) The extent (if any) to which any such objective, policy, rule or other method is necessary in achieving the purpose of this Act; and*
  - (ii) Other means in addition to or in place of such objective, policy, rule, or other method which, under this Act or any other enactment, may be used in achieving the purpose of this Act, including the provision of information, services, or incentives, and the levying of charges (including rates); and*
  - (iii) The reasons for and against adopting the proposed objective, policy, rule, or other method and the principal alternative means available, or of taking no action where this Act does not require otherwise; and*
- (b) Carry out an evaluation, which that person is satisfied is appropriate to the circumstances, of the likely benefits and costs of the principal alternative means including, in the case of any rule or other method, the extent to which it is likely to be effective in achieving the objective or policy and the likely implementation and compliance costs; and*
- (c) Be satisfied that any such objective, policy, rule or other method (or combination thereof) -*
  - (i) Is necessary in achieving the purpose of this Act and*
  - (ii) Is the most appropriate means of exercising the function, having regard to its efficiency and effectiveness relative to other means.*

Part VI of Resource Management Act (Section 106) specifies the circumstances when a territorial local authority cannot grant subdivision consent. These apply to:

- “(a) Any land in respect of which a consent is sought, or any structure on that land, is or is likely to be subject to material damage by erosion (falling debris) subsidence, slippage, or inundation from any source; or*
- (b) Any subsequent use that is likely to be made of the land is likely to accelerate, worsen, or result in material damage to that land, other land, or structure, by erosion, (falling debris) subsidence, slippage, or inundation from any source -*

*Unless the consent authority is satisfied that sufficient provision has been made or will be made in accordance with subsection (2).*

- (2) A consent authority may grant a subdivision consent if it is satisfied that the effects described in subsection (1) will be avoided, remedied, or mitigated by one or more of the following:*
  - (a) Rules in the district plan;*
  - (b) Conditions of a resource consent, either generally or pursuant to section 220 (1) (d):*
  - (c) Other matters, including works.”*

Furthermore, Section 220 enables territorial authorities to impose conditions of consent for the protection of land against erosion, subsidence, slippage, or inundation from any source.

While Sections 106 and 220 apply to the granting of resource consents, the principles that underlie these sections have been applied when considering appropriate densities for future subdivision of existing sites within the Birdwood Concept Plan Area.

## **5.2 Auckland Regional Policy Statement**

The Auckland Regional Policy Statement provides a resource management framework for managing environmental effects associated with urban and rural development within the region. Regional strategic objectives seek to ensure that soil resources, water quality, amenity values, rural character and landscape values are protected from the effects of inappropriate subdivision, use or development and that the Region's growth is accommodated in a manner that gives effect to the purpose and principles of the Resource Management Act. Briefly, the following policies (summary only) are relevant:

- Regional strategic objectives for rural areas are to protect soil resources, rural character, landscape values, and mineral resources, from the regionally significant effects of inappropriate subdivision, use or development (Strategic Objective 2.5.1.3);
- Urban development is to be contained within defined metropolitan urban limits (Strategic Policy 2.5.2.3);
- For rural areas not rated as being outstanding or regionally significant landscapes, the protection of those elements, features and patterns which contribute to the character and quality of the landscape and to its amenity value or which help to accommodate the visual effects of subdivision is required (Policy 6.4.19.2);
- Before provision is made enabling significant development or redevelopment of land which will result in intensification of land use, any flood hazards and measures to avoid or mitigate their adverse effects shall be identified (Policy 11.4.1.4);
- Development shall not be permitted in areas subject to erosion/land instability unless it can be demonstrated that the adverse effects can be avoided or mitigated (Policy 11.4.1.9).

The Concept Plan area is within the Metropolitan Urban Limits, which lies 2-3 km to the west. The Concept Plan area is not identified in the Regional Policy Statement as an outstanding landscape or natural area. The strategic direction of the Auckland Regional Policy Statement is to consolidate urban development within a defined area identified by the Metropolitan Urban Limits. For land within the Metropolitan Urban Limits there is an expectation that urbanisation will occur subject to natural and physical constraints.

The Auckland Regional Policy Statement gives explicit recognition to issues such as water quality and quantity, and natural hazards.

Chapter 8 of the Auckland Regional Policy Statement contains policies about water quality. The Auckland Regional Policy Statement seeks to maintain water in water bodies, which have good water quality, and to enhance water quality, which is, degraded (Auckland Regional Policy Statement Objective 8.3). Within urban areas, policy 8.4.4.1 states that land use intensification shall only occur where adequate provision is made for control of sediment discharges, stormwater discharges, collection, transport, treatment, purification and disposal of sewerage, protection of the quality of groundwater and protection of water quality and riparian margins. Where land disturbance activities are required, Auckland Regional Policy Statement Policy 8.4.7 (3) seeks to ensure that adverse effects of sediment discharges are avoided, remedied or mitigated.

Chapter 11 of the Auckland Regional Policy Statement contains policies about natural hazards. Natural hazards are defined in the Act as *“any atmospheric or earth or water related occurrence (including earthquake, erosion, volcanic and geothermal activity, landslip, subsidence, sedimentation, wind, drought, fire or flooding) the action of which adversely affects or may adversely affect human life, property or other aspects of the environment.”* In respect of natural hazards, Auckland Regional Policy Statement Objective 11.3 seeks to avoid, remedy or mitigate the adverse effects of natural hazards on human life, property and the environment. Accompanying policies require that before any provision is made enabling significant development of land any flood hazards and measures to avoid or mitigate their adverse effects is identified (Auckland Regional Policy Statement Policy 11.4.1.3). Also, that development is not permitted in areas subject to erosion/land instability unless it can be demonstrated that the adverse effects can be avoided, remedied or mitigated (Auckland Regional Policy Statement Policy 11.4.1.9).

### **5.3 Waitakere City District Plan**

The policy framework of the District Plan is based around Part II of the Act, which gives specific recognition to, amongst other things, matters such as effects on water quality and quantity, native vegetation and fauna habitat, land, air quality, ecosystem stability, outstanding natural features and landscapes, amenity values and heritage.

The Concept Plan area is identified as part of the ‘Birdwood Special Area’ in the District Plan. This identification reflects its historical zoning as ‘deferred residential’ that has been in place for the last 30 years. The District Plan provides for a concept plan process for the portion of this area inside the Metropolitan Urban Limits. The majority of the remaining area comprises the Birdwood Structure Plan area. The interim District Plan provisions are those for the Foothills Environment, however it is expected that some form of urban development will occur on this land subject to natural and physical constraints.

This is reflected in the District Plan's explanation of the strategic direction: policies and methods, which states (as amended by Variation 87):

*"Birdwood Area*

*The 'Birdwood Area' includes the Birdwood Structure Plan area and the Birdwood Special Area generally west of Don Buck Road and east of Chamberlain Road.*

*The majority of the Birdwood Area has long been identified as an area for urban development, but urban services have not been provided. During the preparation of the Proposed District Plan, the suitability of the Birdwood Area to accommodate urban activities was reassessed. It is apparent that because of landscape, stability and stormwater issues, it would be inappropriate to develop all of the area into urban densities.*

*It is the intent of the Proposed District Plan (Decision Notice 61) that a "Concept Planning" process be undertaken for the Birdwood area. The concept plan will identify the carrying capacity of the area and seek to maintain the landscape values, minimise landform modification and retain natural resource ...."*

A4 Further additions and amendments to the text describing the Birdwood Area and the Birdwood Urban Concept Plan area are proposed. These changes to Part 6, 6.1.1 Theme One: Urban Consolidation and Managing Growth Pressures are outlined as attached at page A4. The policy additions discuss the Concept Plan location; issues that need to be addressed by the Concept Plan (eg. avoiding development on unstable land); residential density explanations; particular stormwater constraints; and key road linkages.

A6 Proposed changes to Part 6, 6.2.5 Intensification within the Urban Area: Infill Housing are outlined as attached at page A6. These amendments relate to some of the reasons why land has been identified as Living Environment (2) and Living 4 within the Concept Plan Area.

A16-A18 In addition, the District Plan identifies existing 'Natural Areas' and an area designated as 'proposed reserve'. The majority of the Concept Plan area is identified as 'General Natural Area'. The existing bush areas bordering the main Chamberlain Stream channel are identified as either 'Managed Natural Area' or 'Restoration Natural Area'. The area designated as 'proposed reserve' (WCCOS2) generally follows the bush line along the stream margin. All of these provisions of the District Plan are operative and Plan Change 4 does not seek to alter or amend any aspect of them. However, four new riparian margins have been identified and are shown on the Natural Areas map which is attached at pages A16 to A18.

The general themes of the relevant District Plan objectives and policies are summarised below:

**Effects on Water Quality and Quantity**

Ensuring that the adverse effects of land use on the quality and quantity of the City's water resources are avoided, remedied or mitigated and that settlement is located away from coastal edges, riparian margins and areas prone to flooding. (Objective 1; Policy 1.1)

Ensuring that clearance and damage to native vegetation within riparian margins of rivers and coastal margins is avoided. (Policy 1.5)

Encouraging the absorption of rainfall and surface water runoff on-site thereby avoiding the creation or exacerbation of stormwater flooding problems and minimising runoff of surface water to stream catchments and waterways. (Policy 1.7)

Ensuring that modification to the structure and form of watercourses, riparian margins and coastal edges is avoided. (Policy 1.9)

Ensuring that impermeable surfaces and stormwater infrastructure should be designed and managed in a way that avoids adverse impacts on water quality. (Policy 1.10)

Ensuring that activities are carried out in a way that does not give rise to a reduction of in-stream waterflows to the extent that naturally occurring freshwater aquatic ecosystems are adversely affected. (Policy 1.11)

Ensuring that any point discharge to a waterway should be within the capacity of the receiving waters to absorb adverse effects in a way that harm to water quality and aquatic ecosystems is avoided. (Policy 1.12)

Avoidance of contamination of the Cities waterways by movement of solid waste and sewage (Policy 1.14)

#### **Effects on Native Vegetation and Fauna**

Ensuring that settlement is of a type and density that avoids or minimises adverse impacts on native vegetation and fauna habitat. (Policy 2.1)

#### **Effects on Land Stability**

Avoiding activities that exacerbate slipping, subsidence and/or erosion of soils and any natural hazard event within an identified natural hazard area. (Objective 3, Policy 3.4).

#### **Effects on Ecosystem Stability**

Ensuring that activities including subdivision are designed, and be of a nature and scale and located and managed in a way that avoids adverse effects on biodiversity and the ecological integrity of the Green Network. (Policy 5.1).

#### **Effects on Amenity Values**

Ensuring that natural and physical characteristics (amenity values) contribute to the wellbeing of residents including acceptable levels of quiet and freedom, daylight and sunlight, a safe and accessible public environment, and healthy air quality. (Objective 10)

Ensuring that land use development and subdivision recognise the need for transportation which provides safe and efficient movement of people through private and public transport. (Policy 10.8)

Ensuring that settlement in the City be at a density that is within the capacity of water supply, stormwater, wastewater and solid waste infrastructure (Policy 10.17)

Ensuring that settlement be of a type and density that protects amenity values, including neighbourhood character. (Policy 11.1)

### **6.0 ASSESSMENT OF ENVIRONMENTAL CONSTRAINTS**

A number of technical studies have been undertaken to identify the existing natural and physical constraints to development within the Birdwood Urban Concept Plan Area. The results of these studies are discussed in the following paragraphs. In addition, Council's Transport Assets Section, Landscape Development Section and EcoWater have provided technical input. Full copies of the technical reports have been collated and printed in the Birdwood Urban Concept Plan: Section 32 and Background Report which was available at Council's Civic Centre when the Plan Change was notified.

## 6.1 Landscape Study - LA4 Landscape Architects

The Landscape Assessment was commissioned in 1997 to address issues raised in submissions specific to the Birdwood Area. The study covered land identified in the District Plan as Birdwood Special Area, which also includes the entire Birdwood Structure Plan Area. The study divided the area into landscape units. The upper part of the Birdwood Urban Concept Plan Area was identified as Unit 2d. Landscape Unit 2 is described generally as:

*“the main characteristic of this landscape is that whilst being basically rural in character, this is being eroded or changed by a number of new activities or visually intrusive uses. Part of this landscape character area is backed by a significant and highly visible ridgeline, with views out across the character area and beyond...”*

*One unit which could absorb change without compromising the rest of the character area is the small landscape unit - Unit 2d - which is visually contained by the subsidiary ridge to the east.*

*Overall this landscape character area is in a ‘transition phase’ between completely rural uses, and rural residential and horticultural and other uses. As a result parts of the landscape lack coherence and structure. It has limited sensitivity.”*

The lower part of the Concept Plan area is identified as Unit 4 and 7. Landscape Unit 4 is described as follows:

*“This landscape character area has as a basis fairly steep sloping land, west of Don Buck Road and south of Chamberlain Road. Part of the adjacent landscape unit 2d also has this landform characteristic. The area comprises a mix of land uses including glasshouses, vineyards, houses, stud farm and schools. Though fairly disturbed in terms of mixed land uses, the existing trees (shelter belts, groups of trees, bush in the stream valley and the edge of the steep tree covered escarpment to the south) form a strong vegetative framework, which compensates and balances this mix of uses.*

*This Unit has a moderately high visual absorption capability because of the mixed land uses, proximity of residential development and the tree framework, though the higher parts of the character area near Don Buck Road are visible from areas to the south. The lower parts of the area are visually well concealed.”*

Landscape Unit 7 comprises the western side of the steep escarpment that is almost completely covered in a mix of Acacia, regenerating bush, and pines in some places. Unit 7 forms a backdrop to the Te Rangī Hiroa Park to the south and also for residential areas of Ranui. The majority of this area is designated as ‘proposed reserve’.

The landscape differential across the Birdwood Special Area was reflected in the explanations to the objectives in policies in the District Plan that relate to peripheral urban development described in Section 3.2 of this report.

## 6.2 Vegetation and Wildlife Study - Michelle Tyrell

A Vegetation and Wildlife Study was also commissioned in 1997 to investigate the ecological values of the Birdwood Special Area in response to submissions on the Proposed Plan. This study identified a mix of vegetation, for the Birdwood Urban Concept Plan Area in close proximity to the Chamberlain Stream. This vegetation type is reflected in the Natural Area identification in the District Plan. The vegetation identification has been further defined recently in response to a District Plan reference specific to the Kostanich property at 104 Don Buck Road.

### **6.3 Freshwater Habitat Study - Clinton McCollough**

The Freshwater Habitat Study was completed in 1997. This study included all streams within the northeast Swanson stream catchment. Within the Birdwood Urban Concept Plan Area, fish sample sites included just below the Chamberlain Road culvert (Site 5) and just west of the confluence of the Swanson Stream and the Chamberlain Stream (Site 2). At Site 2, evidence of Common Bully, Long Finned Eel, Whitebait and Shrimp was found. Site 5 was virtually devoid of fish species. It was noted that at Site 5, a drop-culvert prevents upstream migration of fishes such as banded kokupu to the habitat above, whilst a general lack of riparian vegetation greatly reduces the quality of instream habitat.

Management recommendations to improve habitat values include minimising sediment runoff by the establishment of well maintained riparian vegetation and the use of sediment ponds.

### **6.4 Geotechnical Study - Beca Carter Hollings & Ferner**

The geotechnical study was commissioned in 1999 after the completion of the community workshop in March. A copy of the draft concept plan along with a range of possible lot sizes was provided to Beca Carter.

The geotechnical study identified a range of 'geotechnical zones', Zone A being the most suitable for residential development and Zone C being the most difficult. A large part of the Birdwood Urban Concept Plan area was identified as Zone C. Areas identified as Zone A were limited to land with a flatter topography adjacent to the rear of existing residential lots fronting Don Buck Road and in the north-west corner of the Concept Plan area. In addition to describing the geology and identifying geotechnical zones, Beca Carter also recommended that the size of possible lot sizes be decreased to reflect the geotechnical constraints that had been identified. The report also recommended that there be no direct stormwater or wastewater discharges to ground that could destabilize land.

The identification of these 'geotechnical zones' was further confirmed by a study undertaken by Tonkin & Taylor for the Swanson and Birdwood catchments. However a more detailed study commissioned from Soil & Rock Consultants by landowners for land above Chamberlain Road indicated that the degree of instability is not as severe for this part of the concept plan area as reported by Beca Carter.

### **6.5 Stormwater Catchment Management and Instream Ecological Study - Riley Consultants/Kingett Mitchell**

A stormwater catchment management and instream ecological study has been completed by Riley Consultants and Kingett Mitchell. The key stormwater issue identified for the Chamberlain catchment is the potential for stream erosion generated during a two-year storm event. The Chamberlain Stream and its headwaters is characterised by steep incised stream banks that contain soft sediment and is therefore vulnerable to erosion. For this reason, the study recommends that any development scenario be required to maintain two-year stormwater discharge rates to pre-development levels. This objective will be achieved by limiting creation of impermeable surfaces and through the establishment of riparian margins described in Section 9.

The stormwater study has modelled a development scenario (as shown on the Birdwood Urban Concept Plan map) and established a maximum impermeable surface area for the catchment. This is the maximum area of impermeable surface that can be established to ensure that the rate of stormwater discharge to streams is maintained at pre-development levels and assumes 60% impermeable surface for the area identified as Living 2 and 20% for the area identified as Living 4. The catchment management plan also assumes that the area of standard residential shown on the concept plan map will have reticulated stormwater and wastewater. The area of Living 4 will have reticulated wastewater only.

Based on this development scenario, in terms of stormwater volume, the study concludes that while there will be a small increase in stormwater volumes discharged from the Chamberlain catchment, this discharge will not coincide with peak flows in the Swanson Stream. For this reason it is considered that there will be no adverse flooding effect on the Swanson Stream.

The catchment management plan sets out a number of recommendations for managing stormwater within the Concept Plan area. These recommendations will form the basis of requirements for subdivision and impermeable surfaces in the Birdwood Urban Concept Plan area.

#### **6.6 Archaeological Study - Rod Clough & Associates**

An archaeological study has been undertaken by Rod Clough for the entire Birdwood Special Area. This study concludes that while there is a strong European and Maori history associated with this area, there are no archaeological sites evident. Consultation with Te Kawerau a Maki and Ngati Whatua has not revealed any waahi tapu sites or sites of special significance to iwi.

#### **6.7 Phase I Contamination Study - Environmental & Earth Sciences Limited**

Due to the nature of historical land uses that include horticulture and agriculture within the Birdwood Urban Concept Plan area, a Phase I Contamination Study has been completed. The study included a review of Council property files and historical photographs dating back to 1940. The purpose of the study was to identify areas of land that have historically been used for horticultural or agricultural purposes and which may be contaminated due to the use of chemicals. Of the 16 properties investigated, only 3 were identified as having been used for any kind of intensive horticultural or agricultural purpose. These included an ex-poultry farm, a vineyard and glasshouses.

The study simply identifies land uses that have been or can be associated with activities that lead to soil contamination. This study does not provide evidence that contamination currently exists. This report will form part of Council records for the area. Those sites that have been identified with potential for contamination should be investigated in more detail at the time of subdivision.

### **7.0 CONSULTATION**

Consultation has been undertaken with landowners both within and surrounding the Birdwood Urban Concept Plan area. Local landowners, Iwi and the Auckland Regional Council attended a Council workshop held in 1999 to discuss the future of the Concept Plan area. A draft plan was prepared and sent out to all attendees indicating that further work would need to be undertaken to understand stormwater and geotechnical issues.

Following the completion of the geotechnical and stormwater studies, the results were summarised and sent to landowners within the concept plan area with an indication that a further concept plan would be developed having regard to these two studies.

In late 2002 a final draft plan was sent to all landowners within and surrounding the Concept Plan Area. Nine responses were received raising a number of issues including:

- The distribution of density shown on the concept plan map;
- The location and implication of the indicative road;
- Potential traffic generation;
- Land stability and water supply;
- Access to Massey High School; and
- Potential soil contamination, protection of natural heritage and stormwater management.

### **7.1 Density**

In terms of the distribution of density shown on the concept plan map, these have been determined on the basis of the natural and physical constraints that apply to the land. Council is obliged to adopt a conservative approach to subdivision and development in this area to reflect these constraints.

### **7.2 Indicative Roads**

Indicative roads have been identified simply to indicate where road connections may be desirable and consistent with Council's District Plan policies. The exact location of these roads will need to be determined at the time of subdivision and will need to consider access and connection to adjacent properties.

### **7.3 Traffic Generation**

Development within the Birdwood Urban Concept Plan area will lead to an increase in traffic generation. However, consultation with Council's Traffic Assets Section has indicated that this will not generate adverse effects on the capacity of Don Buck Road or surrounding roads. New roads will need to be designed in accordance with Council standards.

### **7.4 Land Stability and Water Supply**

The Council is cognisant of land stability constraints within the Birdwood Urban Concept Plan area. Applications for subdivision in this area will need to provide detailed geotechnical assessments to demonstrate the suitability of the land. Subdivision is provided for as a "limited discretionary" activity that enables the Council to decline an application where a site is not suitable for development.

Reticulated water supply will be available for the Birdwood Urban Concept Plan area.

### **7.5 Access to Massey High School**

Massey High School indicated a desire to see vehicle access to the school grounds upon subdivision. It is recommended that this be considered at the time of subdivision.

### **7.6 Potential Soil Contamination, Protection of Natural Heritage, and Stormwater Management**

The Auckland Regional Council raised issues of soil contamination, natural heritage and stormwater management. In response, the Council completed a Phase I investigation of the Concept Plan area that sets out the historical land uses and areas of potential contamination. The results of the study showed that there was limited potential for contamination in the area. Where potential was identified, Auckland Regional Council officers agreed that this be investigated further at the time of subdivision.

Areas of significant native vegetation with the Concept Plan area are limited. Mostly, the vegetation is a mixture of weed species and regenerating bush. It was considered that the current Natural Area rules in the District Plan were sufficient to deal with land use activities that might impact on these bush areas.

In respect of stormwater management, this was discussed extensively with the Auckland Regional Council officers, and an application for a comprehensive discharge consent applied for. It is considered that these matters have been adequately addressed.

## **8.0 SECTION 32 ANALYSIS OF ENVIRONMENTAL OUTCOMES SOUGHT AND DEVELOPMENT PRINCIPLES**

Section 32 of the Act requires that before adopting any objective, policy, rule or other method, the Council must be satisfied that the proposed provision is both necessary and appropriate in terms of its effectiveness and efficiency. The Council must also consider other means of achieving the purpose of the Act and state the reasons for and against adopting the proposed objective, policy, rule or other method.

Guiding principles that give direction to environmental outcomes sought for the Birdwood Urban Concept Plan are encompassed within the governing statutory framework. The permissive nature of the Act is such that there is a general expectation the Council will initiate a process to investigate more thoroughly the development potential of land in Waitakere City within the Metropolitan Urban Limits that could be suitable for urbanisation. Such areas are limited in the City and the Birdwood Urban Concept Plan Area represents a significant part.

The Birdwood Urban Concept Plan Area has long been identified as an area that may be suitable for urban development. This is reflected in previous "deferred residential" zoning, the location of the Metropolitan Urban Limits and the identification of this land as a 'special area' that should be specifically planned for through a concept plan process.

Clearly, future development in this area must have regard to the purpose and principles of the Act as well as the expression of those principles in Auckland Regional Policy Statement and District Plan policy. Of significance is the potential effects of development on the water quality and habitat value of the Chamberlain Stream, the natural heritage features including regenerating native vegetation along stream margins, as well as avoiding natural hazards such as flooding and land instability. Consideration must also be given to the integration of the Birdwood Urban Concept Plan area with adjacent suburbs, its impact on existing infrastructure including roads as well as its role as a transition area to the Birdwood Structure Plan area.

Interface issues between existing residential areas are generally well catered for in the District Plan. This is reflected in a range of existing 'Living' Environments that reflect specific amenity values as well as bulk and location controls that are consistent across the City's residential urban environment.

Natural heritage and ecosystem values are recognised through the adoption of a Natural Area layer and associated rules and assessment criteria. Whilst the majority of the Green Network is situated outside the Metropolitan Urban Limits, it does infiltrate the urban area via streams and remnant native vegetation that provide a linkage to the Waitemata Harbour. The protection and enhancement of these features is seen as one of the key objectives to development of the Green Network and its integration with the urban environment.

The Council's responsibility for managing natural hazards is recognised in policy and methods that seek to ensure that the health and safety of people and property is not placed at risk. Similarly, regional policy requires that areas identified for future urban development are comprehensively assessed to ensure that issues such as potential flooding or land instability have been addressed and planned for.

The concept planning process that has been undertaken identifies key environmental outcomes that should guide future development within the Birdwood Urban Concept Plan area including:

- Maximising opportunities for urban development subject to natural and physical constraints;
- Protecting the open, natural character of the Chamberlain Stream;
- Avoiding development that leads to a degradation of water quality in the Chamberlain Stream or its value as a fauna habitat;
- Enhancing the amenity and habitat value of the Chamberlain Stream through the provision of riparian planning and weed management;
- Ensuring that land modification to accommodate future development is minimised;
- Ensuring that development within stability sensitive areas does not lead to adverse effects on people or property; and
- Ensuring that the provision and extension of infrastructure is provided in a coordinated manner having regard to future development of surrounding land.

## **8.1 Options to Achieve Environmental Outcomes**

### **8.1.1 Policy and Assessment Criteria**

The District Plan objectives and policies are generally supportive of the environmental outcomes sought for the Birdwood Urban Concept Plan area. However, it was considered that these policies could be made more robust by introducing area specific policies that highlight issues and outcomes for specific areas.

For example Policy 3.4 relates to activities being carried out in a way that does not exacerbate slipping, subsidence, and/or erosion of soils. However there are specific issues that relate to land stability in the Birdwood Urban Concept Plan area that could benefit from policy recognition. A new policy that recognises the Birdwood Urban Concept Plan area as a 'stability sensitive' area and that various activities may have the potential to exacerbate instability such as the location of building platforms and driveways, strengthens the more generic policy set out in Policy 3.4. Specific reference is also made to the method adopted (site size) as a means of achieving this policy. Such a policy also improves linkages between policies and methods in the District Plan as they apply to the Birdwood Urban Concept Plan area.

The assessment criteria from the District Plan that apply to the Living Environment are considered to be generally appropriate with some additions that enable specific consideration of features identified on urban concept plans that form part of the District Plan and assessment of stability issues.

A2-A15

Recommended policy and assessment criteria changes as set out in the Plan Change are attached at page A2 to A15. It is considered that these changes are necessary in order to create a robust policy framework for development in the Birdwood Urban Concept Plan area.

### 8.1.2 Rules and Methods

District Plan rules are a method to achieve objectives, and policies, and ultimately the environmental outcomes sought. For subdivision, rules are a necessary method as Section 11 of the Act states that no person may subdivide unless the subdivision is expressly allowed by a rule in a district plan or resource consent.

Bearing in mind that a desired outcome of this process was to determine the extent to which the Birdwood Urban Concept Plan area can be urbanised subject to natural and physical constraints, a number of options for enabling this to occur through the District Plan were considered.

Clearly the status quo was not an option, as that would have deferred to the underlying Human Environment, which was Foothills. The minimum lot size for the Foothills Environment is 4 hectares. Subdivision below 4 hectares is a non-complying activity. Given that research undertaken when preparing the Plan Change demonstrated that a residential density consistent with an urban environment was feasible, it was necessary to consider alternative subdivision and land use provisions that would enable urban development to occur.

### 8.1.3 Subdivision Rules

Possible options for subdivision that were considered included:

- Existing Living Environment Rules (Living, L1, L2, Living Environment - Harbour View and L3);
- Alternative Living Environment Rules;
- A combination of Existing Living Environment and Alternative Living Environment Rules.

### 8.1.4 Existing Living Environment Subdivision Rules

The existing Living Environment rules were considered. There are currently five categories of 'Living' Environment that have been identified to reflect differences in amenity and location throughout Waitakere City.

The 'Living' Environment covers the majority of the urban residential part of Waitakere City where infill subdivision (existing sites up to 1ha net site area or up to 9 new sites created) down to a minimum of 450m<sup>2</sup> is provided for as a controlled activity. For greenfield subdivision (existing sites over 1ha but less than 3ha or 10 or more new sites created) in the General Natural Area, existing provisions enable a minimum net site area of 450m<sup>2</sup> as a limited discretionary activity. Subdivision of land included within an urban concept plan incorporated into the District Plan is also a limited discretionary activity. The same minimum site area provisions apply to the Living 1 and 2 Environments as described above for the general Living Environment. The Living 1 Environment includes Kelston, Te Atatu South, and Te Atatu Peninsula. The Living 2 Environment includes Green Bay, New Lynn and Glen Eden.

The density provisions provide for a minimum net unit area for residential development in the Living Environment of 350m<sup>2</sup> as a 'limited discretionary activity'. Density provisions are more conservative to reflect the existing character and amenity of these suburban areas. As described above, in the Living, and Living Environment (Harbour View), there is a minimum net unit area of 350m<sup>2</sup> provided as a 'limited discretionary activity'. In the Living 1 Environment there is a minimum net unit area of 400m<sup>2</sup> provided for as a 'limited discretionary activity'. In the Living 2 Environment, further intensification below 450m<sup>2</sup> is a discretionary activity except in terms of providing for a minor household unit on sites greater than 600m<sup>2</sup> net unit area, which is a permitted activity.

The subdivision provisions for the Living 3 Environment reflect its character as a transition area between rural-urban interface. Examples of these areas include Philip Avenue in Glen Eden abutting the Oratia Structure Plan Area and Birdwood Road in Massey abutting the Birdwood Structure Plan Area. For subdivision, the minimum net site area is a minimum of 650m<sup>2</sup> and an average minimum of 800m<sup>2</sup>. Further intensification in the Living 3 Environment below 650m<sup>2</sup> would be a discretionary activity and provision is made for minor household units on sites greater than or equal to 600m<sup>2</sup> net unit area.

### 8.1.5 Options for Subdivision and Density Rules

For the Birdwood Urban Concept Plan Area, consideration was given to the 'best fit' in terms of existing residential subdivision provisions. In order to achieve this 'best fit' it was not necessary to create entirely new subdivision rules for the Birdwood Urban Concept Plan area. Rather a combination of existing Living Environment and new Living Environment provisions has been used.

Given the constraints that have been identified, it is necessary that the subdivision and density controls reflect these constraints just as they currently reflect the existing character and amenity of the Living, and Living 1 and 2 Environments and the transition role of the Living 3 Environment.

In the Birdwood Urban Concept Plan Area, the existing constraints apply in terms of the natural constraints of the land. The stormwater study has identified that an increase in stormwater discharge rates above existing levels could have an adverse effect on the Chamberlain Stream by exacerbating erosion. Similarly, the geotechnical study indicates that parts of the steeper land in the Concept Plan area is marginally stable, therefore this should be reflected in site sizes to give future landowners the greatest flexibility in terms of establishing a suitable building platform and access for vehicles and services.

Table 1 below sets out the various sub-areas within the Birdwood Urban Concept Plan area along with corresponding percentage impermeable surface and lot yields that could be achieved using a variety of site sizes. Standard residential, (450m<sup>2</sup> sites), and large lot sizes ranging from 1500m<sup>2</sup> to 3000m<sup>2</sup> were considered.

BIRDWOOD URBAN CONCEPT PLAN SUB-AREAS							
		A (std res above C'Blain Road)	B (large lot above C'Blain Road)	C (std res below C'Blain Rd)	D (large lot below C'Blain Rd)	Reserve	Total
<b>Sub-Area (m<sup>2</sup>)</b>		<b>37,000</b>	<b>200,000</b>	<b>99,000</b>	<b>178,000</b>	<b>138,600</b>	
<b>% impermeable surface of sub-area (m<sup>2</sup>)</b>	60%	22,200		59,400			81,600
	20%		40,000		35,600		75,600
<b>Number of lots per Area*</b>	3000m <sup>2</sup>		66		59		125
	2000m <sup>2</sup>		100		89		189
	1500m <sup>2</sup>		133		118		251
	450m <sup>2</sup>	82		220			302
* no provision has been made for roads or reserves in this calculation							

## 8.2 Scenario Discussions

### 8.2.1 Standard Residential Area (coloured yellow on the Birdwood Urban Concept Plan map)

The stormwater study modelled development scenarios for residential land use within the Birdwood Urban Concept Plan Area. For the areas identified as either Zone A or B in the geotechnical study (coloured yellow on Concept Plan map - approximately 136,000 m<sup>2</sup>), it was assumed that these areas would be developed at a standard residential density of not less than 1 dwelling per 450m<sup>2</sup> having a maximum of 60% (270m<sup>2</sup>) impermeable surface per net site area or a total impermeable surface area of not more than 81,600m<sup>2</sup>. This is the maximum amount of impermeable surface that could be accommodated within the area (including roads) without increasing stormwater discharge rates above the two-year storm pre-development levels.

For these areas was considered that the 'Living 2' Environment was the 'best fit' in that it provides for a residential density of not less than 450m<sup>2</sup>. Whilst this site size has not been chosen for amenity reasons, it has been chosen to reflect the stormwater and geotechnical constraints that have been identified and should be expressed as such in the District Plan explanation of the Living 2 Environment.

The recommendations made for Zones A & B in the geotechnical report are conservative as they reflect the constraints that apply to the more marginal geotechnical Zone B. However, the report notes that the recommended average density of 1000m<sup>2</sup> does not restrict smaller lot sizes providing the necessary level of investigation and design is carried out prior to consent approval. It is considered that a 'limited discretionary activity' status will provide the Council with sufficient ability to require amendments or to refuse consent where it is not satisfied that the stability constraints can be addressed. This is further reinforced in proposed policy and assessment criteria changes.

### 8.2.2 Large Lot Residential Area (coloured pink on the Birdwood Urban Concept Plan map)

For the areas identified as geotechnical Zone C (coloured pink on the Concept Plan map), a range of site sizes were considered along with a range of impermeable surface percentages per site area.

The key issue in terms of determining a suitable density and site size for the large lot residential area were constraints that existed in respect of stormwater and land stability. In this regard, the subdivision and impermeable surface rules are the most relevant. The stormwater catchment management plan recommended a maximum of 20% impermeable surface over these areas. The rules controlling subdivision and impermeable surface should therefore achieve the purpose of enabling development to occur within this maximum.

The existing subdivision rules for the Living Environment apply to Infill and Greenfields subdivision. The rules are based on net site area. Net site area is defined as *"the total area of the site, less any area subject to proposed road widening, less any area within a driveway less than 6.0m in width leading to a rear site"*. Given the restriction on impermeable surface for the areas coloured pink on the Concept Plan map, the existing Living Environment rules for the Living, L1, L2 and L3 Environments would not enable the creation of sites sufficiently large enough to allow a reasonable amount of impermeable surface per site including any access to that site. Furthermore the site sizes permissible within those environments (between 450m<sup>2</sup> and 800m<sup>2</sup>) were not sufficiently large enough to accommodate flexibility for locating a building platform given the possible land stability issues that may be associated with the new site.

In order to determine the appropriate size of site that reflects the constraints described above, a range of site sizes were considered. Table 2 sets out these site sizes along with corresponding areas of impermeable surface resulting from lot yields. It was assumed that roads and access ways would form a component of the area of impermeable surface.

Table 2:

		<b>B (large lot above C'Blain Road)</b>	<b>D (large lot below C'Blain Rd)</b>	<b>Total Impermeable Surface Area</b>
<b>Total Impermeable Surface Area x No. of Lots</b>	3000m <sup>2</sup> @ 25% (750m <sup>2</sup> /lot)	49,500	44,250	<b>93,750</b>
	2000m <sup>2</sup> @ 20% (400m <sup>2</sup> /lot)	40,000	35,600	<b>75,600</b>
	2000m <sup>2</sup> @ 15% (300m <sup>2</sup> /lot)	30,000	35,600	<b>65,600</b>
	1500m <sup>2</sup> @ 20% (300m <sup>2</sup> /lot)	39,900	35,400	<b>75,300</b>

The above table sets out a range of site sizes and the percentage of impermeable surface areas multiplied by the lot yield for each larger lot sub area set out in Table 1. A lot size of 3000m<sup>2</sup> at 25% impermeable surface would generate 93,750m<sup>2</sup> of impermeable surface for these areas on the Concept Plan map. This figure was greater than the maximum 20% impermeable surface (75,600m<sup>2</sup>) set out in Table 1. For this reason it was discounted.

25% impermeable surface on a 3000m<sup>2</sup> site would provide for 750m<sup>2</sup> of impermeable surface. For what would essentially be a suburban lot, this level of impermeable surface was considered to be excessive, even allowing for access to rear lots. This figure is even greater than that anticipated for a rural-residential lot in a structure plan area i.e. a nominal 600m<sup>2</sup> in accordance with the Countryside and Foothills Stormwater Code of Practice. It was considered that smaller lots are achievable that still allow for a reasonable area of impermeable surface.

Lot sizes between 1500m<sup>2</sup> and 2000m<sup>2</sup> having 20% impermeable surface would generate a total area of impermeable surface equal to or below the maximum 20% threshold set out in Table 1. 20% impermeable surface on a 2000m<sup>2</sup> site would yield 75,600m<sup>2</sup> of impermeable surface, which was the maximum 20% threshold. A 1500m<sup>2</sup> site having a 20% (300m<sup>2</sup>) area of impermeable surface would be below the maximum 20% impermeable surface.

In terms of site size, consideration must be given to determining what would be a reasonable amount of impermeable surface allowable (including access ways) that would not trigger a further resource consent to depart from this rule. The existing impermeable surface rules for the General Natural Area, where there is no connection to a reticulated stormwater system allow for 15% of the 'site area', which includes any access ways to be covered in impermeable surfaces. The 2000m<sup>2</sup> site option with 15% impermeable surface would allow 300m<sup>2</sup>. This site size and area of impermeable surface could easily be accommodated into the District Plan without any amendments to the impermeable surface rule. However, it was questionable whether 300m<sup>2</sup> would provide sufficient area of impermeable surface, particularly where rear sites were served by a single access way. A complying carriageway width of 2.5 metres would cover 125m<sup>2</sup> of impermeable surface on a 2000m<sup>2</sup> site that has a relatively square configuration (eg. 40m x 50m).

This would only leave 175m<sup>2</sup> of impermeable surface for the dwelling and any outdoor parking, turning areas or living areas. It was considered unlikely that this would be sufficient impermeable surface to accommodate the reasonable impermeable surface requirements of a large rear site. Similarly a 1500m<sup>2</sup> site, while providing a greater yield in terms of lots, is also unlikely to provide sufficient impermeable surface for rear sites.

For these reasons, it was considered the site size option of 2000m<sup>2</sup> with 400m<sup>2</sup> (20%) impermeable surface is the most appropriate given the constraints that apply to this part of the Concept Plan area. This option would require additions to the subdivision and impermeable surface rules.

When considering possible site sizes, consideration was also given to the extent to which the rules provided flexibility for a range of site sizes while maintaining an overall average site size of 2000m<sup>2</sup> that was within the maximum area of impermeable surface. Averaging of site sizes may benefit an applicant where greater flexibility is needed to accommodate development in a certain part of the site, thereby avoiding, for example, areas of land instability.

The extent to which averaging can be achieved will be dependent on whether a sufficient complying area of impermeable surface can be accommodated. For example, a rule may specify an average site size of 2000m<sup>2</sup> and a minimum site size of 450m<sup>2</sup>. However, a site size of 450m<sup>2</sup> restricted to 20% impermeable surface would only allow 90m<sup>2</sup> of impermeable surface. This was not a sufficient area of impermeable surface to accommodate a dwelling and associated areas of access, parking and outdoor living space. A minimum site size of 1250m<sup>2</sup> would allow 250m<sup>2</sup> of impermeable surface. If such sites did not require extensive areas of impermeable surface to provide access, it was considered that this was sufficient to accommodate a reasonable development area and provide some flexibility in the creation of new sites.

### 8.3 Subdivision Rules

For the area coloured yellow on the Birdwood Urban Concept Plan, it was proposed that Living 2 be the underlying Human Environment. Additions are proposed to the District Plan's explanation of Living 2 to reflect the Birdwood Urban Concept Plan area.

For the area coloured pink on the Birdwood Urban Concept Plan, there are no existing Plan provisions that would enable an appropriate level of subdivision that reflects the stormwater and geotechnical constraints that were identified. For this reason, a new 'Living 4' was proposed that would enable subdivision to occur in a manner that reflects the existing natural constraints. These constraints included the limited ability of the catchment to deal with additional runoff that causes stream erosion and land instability.

The proposed 'Living 4' Environment would have a minimum average site area of 2000m<sup>2</sup> and a minimum site area of 1250m<sup>2</sup>. For infill and greenfield subdivision, applications in accordance with these provisions would be a 'limited discretionary activity'. No provision is made within the Residential Density rule to enable more than one dwelling and one Minor Household Unit. The stormwater and geotechnical constraints that apply to this land require that the maximum area of impermeable surface be controlled over the total area of a site rather than a net unit area or a net site area.

A2-A15

Proposed changes to the District Plan are attached at pages A2 to A15.

## 8.4 Proposed Land Use Rules

### 8.4.1 Human Environment

For the most part, it is proposed that the existing Human Environment rules for the Living Environment remain unchanged. It is entirely appropriate that controls such as building location, building height, height in relation to boundary, front yards, traffic generation, requirements for car parking and driveways etc remain consistent with those for the surrounding residential environment. The distinguishing features between the surrounding residential area and the Birdwood Urban Concept Plan area do not include effects on such things as private and public amenity value and infrastructure, but rather natural and physical constraints such as stormwater and land stability.

It is envisaged that changes to the residential density rules will be required. These have been discussed above and will involve restricting development to one dwelling and one minor household unit (on sites greater than or equal to 600m<sup>2</sup> net unit area).

### 8.4.2 Natural Areas

With respect to the Natural Area rules, changes are required to the existing impermeable surface rules to reflect the existing stormwater constraints. The District Plan's impermeable surface rules are linked to the Natural Area Maps. For the General Natural Area a distinction is made between areas that are reticulated and non-reticulated with stormwater.

For areas with connection to reticulated stormwater, the maximum impermeable surface is 60% of the site area. Where there is no connection to reticulated stormwater, the maximum impermeable surface is 15% of the site area.

For the Birdwood Urban Concept Plan area, the maximum amount of impermeable surface is directly linked to changes in the rate of stormwater discharge from the Chamberlain Stream catchment regardless of whether stormwater is reticulated or not. As described above, the stormwater modelling has assumed a maximum 60% impermeable surface area per site for areas coloured yellow on the Concept Plan map and 20% for land coloured brown. Based on a 2000m<sup>2</sup> site area, this would enable 400m<sup>2</sup> of impermeable surface, which is considered sufficient to accommodate a dwelling, access and accessory features such as outdoor paved areas and garden sheds including access to rear sites. It is likely that due to the topography of the land and existing bush areas, dwellings will tend to be located closer to the road frontage and will not result in exceptionally long driveways or access lots.

In order to reflect this constraint, it is necessary to link the impermeable surface rules to the Birdwood Urban Concept Plan map rather than the General Natural Area rules. A similar change is required for the Restoration Area. With respect to the Managed Natural Area, the impermeable surface rule is linked to net site area. Under this rule it is considered that 10% or 200m<sup>2</sup> is sufficient to accommodate a dwelling, turning area, parking, outdoor living areas etc. However this should be capped when considering the total site area so that there is a limit on impermeable surfaces associated with access ways. This maximum could be 20% of the site area.

## 8.5 District Plan Maps

Changes to the District Plan maps include changes to the Human Environment map to identify the boundary of the Birdwood Urban Concept Plan area, and the boundaries of the Living 2 and Living 4 Environments. Changes to the Natural Area maps include changes to the existing riparian margins. It is proposed that a 5 metre riparian margin be applied to all tributaries of the Chamberlain Stream within the Concept Plan area. A Birdwood Urban Concept Plan will be introduced to the appendices of the District Plan maps.

*A16-A18* Proposed changes to the District Plan Maps, as attached at pages A16 to A18.

## 9.0 ANALYSIS OF SUBMISSIONS IN RESPECT OF PLAN CHANGE 4: BIRDWOOD URBAN CONCEPT PLAN

*A19-A70* A total of 9 submissions and 2 further submissions were received in respect of Plan Change 4. The analysis of submissions addresses each submission independently as most submissions are site specific. A full copy of the submissions as attached at pages A19 to A69. In addition a map identifying submitters' properties within the Birdwood Urban Concept Plan is attached at page A70.

### 9.1 Submission from I and Z Farac of 172A Don Buck Road (Submission 4/1)

The submitter states that their soil is not contaminated and that the sprays used on their property are approved by the Fruit Growers Federation. The submitter also seeks that more of their land is designated as Living 2, as it is very stable, not steep and of a high quality for intensive residential development.

#### Discussion

The Phase 1 Contamination Study undertaken by Environmental and Earth Sciences Ltd appears as Appendix 10 to the 'Section 32 and Background Report'. The objectives of the study were to conduct an historical investigation and desktop study, and to carry out site inspections to identify potential areas of contamination (if any) caused by site activities past and present. The landowner, Mr Ivan Farac, was interviewed as part of this study.

The site has been used for the commercial production of wine since the early 1970's. The Contamination Study states that the 'chemicals currently used for weed, fungi and pest control are all commercially available in New Zealand'. However, the report goes on to state that 'the potential for soil contamination from the present and past wine farming activities on the property located at 172A Don Buck Road are considered moderate to high and should be further investigated'.

A 'potential for contamination' has clearly been identified on the site. It is therefore a recommendation of the report that a second phase environmental investigation of the property be undertaken. Environmental and Earth Sciences Limited have provided an estimate to undertake a Phase 2 Environmental Investigation for 172A Don Buck Road (dated December 2002).

The subdivision potential of land within the Concept Plan area was based on a combination of environmental constraints. These included stability, stormwater runoff and erosion and site contaminant issues. The resulting outcome, i.e. delineation and identification of Living 2 and 4 land within the Concept Plan area, is therefore, in part based on geotechnical information gathered to date. The submission refers to 172A Don Buck Road as being stable and not steep. The geotechnical assessment prepared by Beca Carter Hollings and Ferner presented evidence of past and present instabilities within the study area that as a consequence limits the density of development that has been identified in the Birdwood Urban Concept Plan.

However, as discussed above, more than one environmental constraint was taken into account when devising the concept plan and of particular concern was stormwater runoff and the potential for erosion of the headwaters of the Chamberlain Stream within the Chamberlain catchment.

Further detailed information would be required to prove otherwise, and at this stage no further evidence has been presented.

It is recommended that:

*The submission of I and Z Farac of 172A Don Buck Road (4/1).*

Be rejected.

## **9.2 Submission from CDL Land New Zealand Limited of 140A Don Buck Road (Submission 4/2)**

The submitter seeks:

1. That the 5m Riparian Margin located upstream of the existing culvert be removed from the Birdwood Urban Concept Plan.
2. That Policy 1.21, which states that *“Any piping of the stream (Chamberlain Stream and its headwaters) will not be appropriate”* be amended to reflect the need for roading networks which are identified in the Birdwood Urban Concept Plan and which dissect the stream; and that works within these streams may be necessary to achieve the necessary stormwater quality treatment as recommended by the Birdwood Urban Concept Plan.
3. That the Tonkin and Taylor Limited “Swanson Structure Plan - Birdwood Special Area Geotechnical Constraints Report” be included in the Birdwood Urban Concept Plan Section 32 & Background Report; and that clarification be provided to the geotechnical zoning of the subject site due to significant discrepancies in the Beca Carter Hollings Ferner and Tonkin & Taylor geotechnical reports.
4. That consideration be given to reclassification of the western part of the site from Living 4 Environment to Living 2 Environment.
5. That the indicative roading alignment be amended to reflect the alignment indicated in the plan attached at Appendix B, showing an indicative roading and subdivision layout. This layout is cognisant of stream protection and utilisation of existing culverts and avoids extensive earthworks and modification of the gully.
6. That information be provided as to progress and timing of the extension of the inner drainage area to allow for reticulation of wastewater services to the Birdwood Urban Concept Plan area.
7. That financial contributions towards infrastructure such as the water quality treatment wetland identified on the subject site are equally distributed between landowners in the contributing catchments, and that development of the subject site not be delayed by other landowners within the catchment not developing at the same time as the submitter.
8. Other such changes as may be necessary to address the issues identified in the points above.
9. That all other parts of the Birdwood Urban Concept Plan are supported.

Submission (4/1) is supported by two further submissions (4/10/1 and 4/11/2) both received from GA and EM Burns.

### Discussion

Each issue raised by the submitter is addressed as follows:

1. Council's consultant engineers, Riley Consultants, have identified stream erosion as a main constraint within the Concept Plan area. Their report indicates that streams within the Birdwood area have moderate to high ecological values that could either be restored or destroyed as a result of urban development (Stormwater Management Plan, page 19). They recommend 5-6m wide buffers for small waterways such as the one on the submitter's property. This buffer is still quite narrow and will mean that natural regeneration of indigenous species will be limited (Stormwater Management Plan page 25). However, Council's Senior Environmental Analyst, Carol Bergquist, has indicated that the riparian margin identified for this waterway is an absolute minimum. Ms Bergquist and Council's Drainage Engineer, Peter Kovacevich, have both indicated that the stream corridor on the submitter's property could benefit from being extended even further eastwards.

The proposed 5m riparian margin is also consistent with policies in the District Plan relating to avoiding and minimising adverse effects on water quality and quantity and native vegetation and fauna (see 5.3 above). In addition, the stream margin identified on the submitter's property is a first order stream and the standard approach taken in previous comprehensive development circumstances is to require a 5m riparian margin. It is recommended that the proposed 5m riparian margin be retained and the submission rejected.

2. There is an area on the submitter's property where an indicative road is located within proximity to a stream margin (in the south western corner of the property). Therefore, as suggested by the submitter there may possibly be works within the stream margin to construct the road. However, the proposed indicative road layout on the Birdwood Urban Concept Plan map was intended to be flexible and to identify and protect access points from Don Buck Road and the north-south transport corridor between Chamberlain Road and the southern portion of the Concept Plan area. The final design and location of roads within the Concept Plan area may differ from the indicative roading as further research and analysis is required, usually at subdivision stage, before Council approves the final location and design of a road.

Notwithstanding the final position of the road, the proposed statement in Policy 1.21 is significant, as Council generally does not support the piping of streams. However, it is considered that the submission has some validity and that the term 'appropriate' could be replaced with 'desirable' and the piping of a stream would only be possible where particular circumstances provide no other viable alternative. Therefore this submission can be accepted in part.

There was a further submission in support of this submission. The further submission was from GA and EM Burns of 32-50 Chamberlain Road (4/11/2). It is recommended that this submission be accepted in part.

3. Beca Carter Hollings and Ferner were commissioned to undertake a detailed geotechnical assessment (Land Stability Assessment) of the Birdwood Concept Plan area in January 2000. The assessment comprised a study of aerial photographs and field assessments of slope stability, and derivation of geotechnical development zones for the area. As outlined by CDL in their submission, the report identified three geotechnical development zones, all of which appear on the submitter's property.

The following geotechnical assessment undertaken by Tonkin and Taylor was primarily for the development of the Swanson Structure Plan – not the Birdwood Urban Concept Plan area. However, as the Birdwood Special Area (delineated in the District Plan) encompasses both of these areas, this report did include reference to the Beca Carter report in relation to the eastern-most portion of the Birdwood Special Area – that is, the Concept Plan area. Mr Maurice Fraser of Tonkin and Taylor has indicated that in relation to the Concept Plan area there could be some draughting discrepancies as he did not undertake a detailed walkover of this land.

Notwithstanding this, the discrepancies between the reports are minor, as the submitter agrees that the Tonkin and Taylor report identifies their property within both Zone A and B – similar development zones to the Beca Carter report. In both reports the subject site has been identified as suitable for development with minor limitations on its easterly side, graduating to land less suitable for development towards the west of the property. Plan Change 4 recognises these constraints and has identified the eastern side for more intensive development and the small western portion of the site for less intensive residential development.

Given this, it would seem entirely appropriate to continue to identify development opportunities for this property based on the original report prepared specifically for the Birdwood Urban Concept Plan area – the Beca Carter report, whilst noting that the second geotechnical assessment, with slight draughting discrepancies, only vaguely differs in its findings in relation to the same property. It is recommended that this submission be rejected.

4. As described above, the geotechnical report prepared by Beca Carter Hollings and Ferner indicates that sufficient geotechnical constraints exist on the western portion of the submitter's site as to limit development opportunities. In addition, there is a stream that has been identified within the south-western portion of the site, which requires a 5m riparian margin to assist with the protection and enhancement of the natural values of the stream and gully. It is therefore considered inappropriate to make provision for any further intensive residential development in this area. It is recommended that this submission be rejected.
5. As discussed earlier, the roading layout identified on the Concept Plan is indicative and intended to identify and protect connections from Don Buck Road, and a north-south transport corridor between Chamberlain Road and the southern portion of the Concept Plan area. The final design and exact location of these roads may differ slightly from the indicative roading as it is anticipated that when the road is physically formed it may be realigned to avoid the proposed riparian margin, and access and connections to adjacent properties will also need to be considered. This is supported by Council's technical staff.

The submitter has provided an alternate roading layout with their submission. Council's Transport Assets Engineer, Edwin Dearham has indicated that a possible limitation with the proposed road layout is the sightlines afforded at the proposed intersection. Mr Dearham has indicated that an 80-metre sightline would be necessary, and the proposed layout does not appropriately accommodate this. It is considered more appropriate to decide the detailed design of the road layout at the time of subdivision rather than alter an 'indicative' roading layout at this stage on the Concept Plan. It is recommended that the submission be rejected.

6. Council resolved at its November 2002 Environmental Management Committee meeting to make an application to Watercare Services Ltd to have the properties within the Birdwood Urban Concept Plan area included within the Inner Drainage Area (resolution 3269/2002). In addition, EcoWater have made an application to the Auckland Regional Council for a Comprehensive Stormwater Discharge Consent for the Birdwood area. This application is currently being processed. Council's Drainage Engineer, Peter Kovacevich will provide a verbal update regarding the progress and timing of these applications at the hearing.

It is recommended that this submission be accepted.

There was a further submission in support of this submission. The further submission was from GA and EM Burns of 32-50 Chamberlain Road (4/10/1). It is recommended that this submission also be accepted.

7. Council's Drainage Engineer, Peter Kovacevich has indicated that stormwater quality treatment is a requirement for the development of the site and that the developer would be expected to provide a device to treat the entirety of their site. If there are additional contributory catchments then an equitable funding arrangement could be devised. However, at this stage it is recommended that the Stormwater Management Plan prepared by Riley Consultants remain unchanged and that the submission be rejected.
8. Only one such change is necessary, in relation to issue 2 and this has been discussed above.
9. This comment is accepted and no further comment is required in respect of this issue.

It is recommended that:

*Issues 1, 3, 4, 5 and 7 of the submission by CDL Land New Zealand Limited (4/1).*

Be rejected.

It is recommended that:

*Issue 2 of the submission by CDL Land New Zealand Limited (4/1).*

Be accepted in part.

It is recommended that:

*Issues 6, 8 and 9 of the submission by CDL Land New Zealand Limited (4/1).*

Be accepted.

It is recommended that:

*The further submission of GA and EM Burns (4/10/1).*

Be accepted.

It is recommended that:

*The further submission of GA and EM Burns (4/11/2).*

Be accepted in part.

### **9.3 Submission from Hugh Green Ltd (Submission 4/3)**

The submitter supports the Proposed Birdwood Urban Concept Plan although seeks the following amendment to Policy Section - Part 6, Explanation of the Strategic Direction; Policies and Methods. The submitter seeks to insert the following sentences after the second sentence in the first paragraph of the Birdwood Urban Concept Plan area (2(b)).

"It lies within an area which has close physical relationships with other areas which have been identified as having an urban growth potential but which currently lie outside the Metropolitan Urban Limits. These include the Redhills area which lies immediately to the north of the Birdwood Concept Plan area and the Massey North area which is located on the northern side of State Highway 16. The Council will seek to develop the potential which exists for developing strategic and transportation linkages between these areas and with the Westgate Centre, which is the main activity node within this part of the City. In particular, attention will be given to investigating the opportunities for an early release of additional land for urban growth in the Redhills area as a means of addressing the limited urban potential of Birdwood and facilitating the creation of an alternative strategic roading link to substitute for Don Buck Road".

#### **Discussion**

This submission is beyond the scope of the Proposed Plan Change as the Plan Change specifically relates to part of the Birdwood Special Area and not the Redhills area. However, as these areas are adjacent to each other, the submission does warrant some further analysis.

The Council's Long Term Council Community Plan, adopted in June 2003, sets out phases of work for the coming ten years. One area of growth and development identified is the Northern Strategic Growth Area, including Redhills. The Long Term Council Community Plan states that, 'Westgate Shopping Centre is identified as a future major town centre (like Henderson or New Lynn). Any future development in the rest of Northern Strategic Growth Area, however, will require much more investigation of how and where development should occur. It will also require the current boundary of the urban area to be moved outwards ....'. The Long Term Council Community Plan goes on to state that Northern Growth Planning is scheduled to occur between 2003 and 2005. Therefore, inclusion in the District Plan of any statement as outlined by the submitter would be anticipatory and inappropriate prior to the finalisation of the planning for Northern Strategic Growth Area.

In addition, the Auckland Regional Council, in its Regional Policy Statement, does not envisage urban development of this area in the foreseeable future as the Redhills area currently lies outside the Metropolitan Urban Limits. The Auckland Regional Growth Strategy provides a concept for how to accommodate additional population expected between now and 2050, 'without turning the entire region into one enormous sprawling urban area', and the 'sector agreement' process between Councils is being used to advance the issue of where housing could be developed.

In Waitakere City, the Council is working through more detailed planning matters associated with intensification within the existing urban area, the sequencing of new development areas and metropolitan urban limit changes for the future growth areas in the northern part of the city. In 2001 Waitakere City Council agreed a phased growth concept for the northern sector of the Auckland region with its neighbouring Councils and the Auckland Regional Council. This document, the 'Northern and Western Sectors Agreement' identifies on page 16 that the Redhills area is not sequenced for urban growth until after 2021.

Therefore the current sequencing and timing of new development areas does not provide for Redhills for some time, and the submission by Hugh Green Limited should be rejected as it is outside the scope of the Proposed Plan Change.

It is recommended that:

*The submission of Hugh Green Ltd (4/3).*

Be rejected.

#### **9.4 Submission from GA and EM Burns of 32-50 Chamberlain Road (Submission 4/4)**

The submitter seeks that Council review the proposed lot sizes to permit a minimum average of approximately 1200m<sup>2</sup> where specific on-site retention or attenuation is supplied. The submitter also seeks that Council consider site by site cases for balances between site sizes as low as 1000m<sup>2</sup> if balanced by greater intensively planted reserve allocations and/or retention/attenuation.

#### **Discussion**

The development of the Birdwood Urban Concept Plan assumes catchment-wide stormwater attenuation. The intent of the Concept Plan was to provide for new residential development within the area whilst taking into account all environmental constraints. The main stormwater constraints within the Birdwood Concept Plan area are catchment-wide and require catchment-wide attenuation to enable any development to occur. The Stormwater Management Plan prepared by Riley Consultants Ltd does make provision for site-specific attenuation, for example the use of low impact design, however the benefits of such recommendations are necessary for the entire catchment. In addition no supporting information has been provided by the submitter to support their submission. It is recommended that the submission be rejected.

It is recommended that:

*The submission of GA and EM Burns (4/4).*

Be rejected.

#### **9.5 Submission from GA and EM Burns of 32-50 Chamberlain Road (Submission 4/5)**

The submitter seeks that the blanket provision relating to Policy 1.21 "Any piping of the stream will not be appropriate..." be struck out. The submitter also seeks that individual cases be considered where piping would resolve significant issues and that the 5m riparian margin "applied to all tributaries" be struck out in such cases.

### Discussion

As discussed above in submission 4/2, issue 2, it is recommended that Policy 1.21 be amended. It is considered inappropriate to remove the entire policy. As the submitter seeks to have the Policy struck out, and Council officers support minor amendment to the Policy, it is recommended that the submission be rejected.

It is recommended that:

*The submission of GA and EM Burns (4/5).*

Be rejected.

### 9.6 Submission from GA and EM Burns of 32-50 Chamberlain Road (Submission 4/6)

The submitter seeks that Council review the "Proposed Reserve" on their property. The submitters oppose the size and location of the proposed reserve area and seek that it follow the bush line along the stream margin on their property as described in their submission.

### Discussion

The 'proposed reserve' identified on the Birdwood Urban Concept Plan was previously identified in the Waitakere City Proposed District Plan. The proposed reserve identification on the Natural Areas map corresponds to a designation for reserve purposes in this instance. Most appeals to the Proposed District Plan have been resolved and the Plan became operative on 27th March 2003. In addition, the land in question was previously identified as Proposed Public Reserve in the Waitemata District Scheme (Operative 1984). Therefore, the identification referred to by the submitter has been public for almost 20 years.

The Concept Plan does not seek to alter, increase or decrease, the land area that has been identified for reserve purposes previously in the District Plan. The delineation of such areas has been simply reproduced from one to the other. The opportunity to seek amendments to the proposed reserve areas was when submissions from the public were called for in relation to the Proposed District Plan. In addition the delineation of the reserve boundary is considered appropriate as it seeks to protect natural values of a stream margin, to extend an ecological corridor, and therefore the Green Network, between Chamberlain Road and Te Rangi Hiroa Reserve, and to provide access from Chamberlain Road.

At this time it is considered that a request to alter the proposed reserve area is beyond the scope of Plan Change 4 and would not be supported by Council officers.

It is recommended that:

*The submission of GA and EM Burns (4/6).*

Be rejected.

### 9.7 Submission from GA and EM Burns of 32-50 Chamberlain Road (Submission 4/7)

The submitter seeks that natural area 'designations' on their property are withdrawn and redrawn to encompass areas that are genuinely natural areas.

### Discussion

It is considered that this submission is effectively the same in content and meaning as submission 4/6 by the same submitter. Comments on submission 4/6 are relevant to submission 4/7 and it is therefore recommended that submission 4/7 be rejected on the same basis as described above.

It is recommended that:

*The submission of GA and EM Burns (4/7).*

Be rejected.

### 9.8 Submission from GA and EM Burns of 32-50 Chamberlain Road (Submission 4/8)

The submitter seeks that the blanket limit of 20% impermeable surface be struck out and that a higher limit of say 50% be permitted where on site detention/attenuation structures and/or intensive streamside plantings are made.

### Discussion

The issue of site-specific attenuation has been discussed above in section 9.4 in relation to submission 4/4 from the same submitter. In addition, the rationale for limiting the impermeable surface area to 20% of the catchment identified as Living 4 is set out in the Section 32 analysis of this report. The 50% impermeable surface limit suggested by the submitter is considered excessive given the constraints identified by Council's consulting engineers. Limiting the impermeable surface within the catchment is necessary to protect the main Chamberlain Stream and its headwaters from further erosion. Council's consultant engineers have identified mitigation measures to protect the Chamberlain Stream and this includes limited impermeable surfaces as well as strategically located detention ponds and riparian margins. Therefore it is recommended that this submission be rejected.

It is recommended that:

*The submission of GA and EM Burns (4/8).*

Be rejected.

### 9.9 Submission from Grant Miller and Denis Chao of 9 and 51 Chamberlain Road and 252A Don Buck Road (Submission 4/9)

The submitter seeks alterations to the proposed zoning as set out in an attached plan to the submission from Living 4 to Living 2.

### Discussion

Council has gone through a detailed process, including extensive consultation, which largely confirmed the extent of land that could support higher density development. In terms of the distribution of density shown on the concept plan map, as discussed previously, these have been determined on the basis of the natural and physical constraints that apply to the land. Council is obliged to adopt a conservative approach to subdivision and development in this area to reflect these constraints. The main constraint within the catchment is the management of stormwater, to protect the Chamberlain Stream and its headwaters. To this end, the submitter's sites have two proposed riparian margins located within the proposed Living 4 area.

The submitter suggests that extending the Living 2 areas on their properties would not increase pre-development stormwater run-off levels or increase the risk of erosion along the banks of streams. However, Council's consultants in their Stormwater Management Plan have indicated otherwise (as discussed previously in this report).

The submitter also suggests that an alteration to the proposed zone delineation would not cause risks of slippage on the steeper land. However again Council's consultants (Beca Carter) have indicated that certain areas of the property are suitable for development with minor limitations ranging to land suitable for development with moderate or severe limitations (see Map 2 appended to their report and titled Birdwood Urban Concept Plan geological Hazard Map). The proposed zone delineation reflects these constraints and is considered appropriate.

In summary, the proposed Living 2 and 4 delineation within the submitters' sites on the Concept Plan are cognisant of all the environmental constraints identified on these properties, and throughout the entire Chamberlain Stream catchment, and it is considered that these remain the most appropriate identification. It is recommended that this submission be rejected.

It is recommended that:

*The submission of Grant Miller and Denis Chao (4/9).*

Be rejected.

## **10.0 CONCLUSION**

This report sets out the background, technical basis and section 32 considerations for Proposed Plan Change 4: Birdwood Urban Concept Plan. In addition, the report considers issues raised in submissions. Having regard to the issues raised in submissions and further submissions lodged to Proposed Plan Change 4 and the intent of the District Plan for managing land use in the Birdwood area, and the purpose and principles of the Act, it is considered that Plan Change 4 be adopted with minor amendments as discussed below.

The issues raised in submissions have highlighted the following amendment:

Proposed Policy 1.21 - That the term 'appropriate' in the second sentence be replaced with the term 'desirable'.

## **RECOMMENDATIONS**

1. That the information be received.
2. That pursuant to Clause 10 of the First Schedule of the Resource Management Act 1991, the Environmental Management Committee approves Plan Change 4 - Birdwood Urban Concept Plan as attached at pages A2 to A18, with the following amendment:
  - Proposed Policy 1.21 - That the term 'appropriate' in the second sentence be replaced with the term 'desirable'.

A2-A18

3. That pursuant to Clause 10 of the First Schedule of the Resource Management Act 1991, the relief sought by the submitters is rejected, accepted in part, or accepted in full as set out below for the reasons outlined in the discussions relating to each submission in the body of this report:
- It is recommended that the submission of I and Z Farac of 172A Don Buck Road (4/1) be rejected.
  - It is recommended that the issues 1, 3, 4, 5 and 7 of the submission by CDL Land New Zealand Limited (4/2) be rejected.
  - It is recommended that issue 2 of the submission by CDL Land New Zealand Limited (4/2) be accepted in part.
  - It is recommended that issues 6, 8 and 9 of the submission by CDL Land New Zealand Limited (4/2) be accepted.
  - It is recommended that the further submission of GA and EM Burns (4/10/1) be accepted.
  - It is recommended that the further submission of GA and EM Burns (4/11/2) be accepted in part.
  - It is recommended that the submission of Hugh Green Ltd (4/3) be rejected.
  - It is recommended that the submission of GA and EM Burns (4/4) be rejected.
  - It is recommended that the submission of GA and EM Burns (4/5) be rejected.
  - It is recommended that the submission of GA and EM Burns (4/6) be rejected.
  - It is recommended that the submission of GA and EM Burns (4/7) be rejected.
  - It is recommended that the submission of GA and EM Burns (4/8) be rejected.
  - It is recommended that the submission of Grant Miller and Denis Chao (4/9) be rejected.

Report prepared by: Amanda Blakey, Planner: Policy Implementation.

Report released by: Philip Brown, Group Manager: Planning and Community Services.

