



STAFF REPORT

TO: Environment & Planning Subcommittee

FROM: Pauline Webby, Consent Planner

REFERENCE: RM080373 (Subdivision) and RM080374 (Land Use) RM080361 (Water course crossing/S13 of the RMA)

SUBJECT: **C TUFFNELL - REPORT EP09/01/04** - Report prepared for hearing of 26 January 2009

1. INTRODUCTION

1.1 Purpose of this Report

The following report is my assessment of the applications RM080373, RM080374 and RM080361 relating to the two lot subdivision, land-use consent for the construction of a dwelling on rural 1 zoned land and s13 land use application to allow the establishment of stream crossing to enable access to Lot 2 respectively.

1.2 Site, Application and Background

The property is located at 42 Hart Road, Richmond and is legally described as Part Section 34 District of Waimea East and Defined on Deposited Plan 4588 (Certificate of Title NL3D/844) and Part Section 34 District of Waimea East (Certificate of Title NL75/67).

The subdivision proposal is to subdivide a 1.8580 hectare title (CT NL3D/844) into two allotments, creating proposed Lot 1 which would have an area of 1.058 hectares (containing an existing dwelling) and proposed Lot 2 (bare land) which would have an area of 0.8 hectares. The application also seeks to retain the existing vehicle access from Hart Road (which includes CT NL75/67) in its current state with no carriageway widening, formation, or sealing proposed. Part of CT NL75/67 which is covered by an indicative road area would be vested in the Council as road reserve.

The land use proposal is to construct a dwelling on proposed Lot 2 which is zoned Rural 1 and an additional land use consent (section 13 of the RMA) to provide a stream crossing over the water course bisecting the property providing access to proposed Lot 2.

1.3 Tasman Resource Management Plan, Zoning and Consent Requirements

Due to the advanced stage of the Tasman Resource Management Plan (The Plan/TRMP) through the planning process, having become partially operative on 1 November 2008, pursuant to Section 19 of the Resource Management Act 1991, the Tasman Resource Management Plan is the dominant Plan for these applications to be assessed under, and no weight needs to be attributed to the Transitional District Plan.

Under the Plan the site has a Rural 1 zoning, is within the Land Disturbance Area 1 and there is an identified ridgeline above and to the north west of the site. The area to the northeast of the stream which bisects the site is encompassed within a deferred residential zoning, but for the purposes of this assessment the underlying rural 1 zoning is the only relevant zoning for assessment of these applications. It should be noted that the deferred residential zone indicates planning for future development (Richmond South) once servicing to the area can be provided. In relation to the application site the TRMP planning maps show an indicative reserve (part drainage and part recreation) with a total width of 25.2 metres spanning the width of the stream that crosses the property and an indicative road area over part of the access leg.

An aerial photograph showing the indicative road area, reserve and ridgeline is attached as **Appendix 1** of this report.

There are no archaeological sites known to Council on the site. Access to the property is from a section of Hart Road identified as a Collector Road in the Plan Road Hierarchy.

The subdivision is considered to be a Discretionary Activity under Rule 16.3.5.2 of the Tasman Resource Management Plan in that the minimum lot size is less than the 12 hectares specified under controlled activity Rule 16.3.5.1 for Rural 1 zoned land.

The construction of one dwelling on Lot 2 would constitute a controlled activity if all controlled activity standards were complied with. However the controlled activity standard in Rule 17.5.3.2 which specifies that a minimum area of 12 hectares is required for a single dwelling is not met. Therefore the construction of a dwelling is a restricted discretionary activity pursuant to Rule 17.5.3.3.

Section 13 of the RMA requires that resource consent be obtained to erect a structure in, on, under, or over the bed of a river, unless expressly allowed by a rule in a regional plan, any relevant proposed regional plan or a resource consent.

Presently, the only proposed or operative regional plan pertaining to the use of river and lake beds at the applicant's site is the Transitional Regional Plan (TRP). Under the provisions of the TRP, consent is required for the proposed activity. The activity defaults to discretionary activity status as per Section 77C(1) of the Act.

Overall, under the Proposed Tasman Resource Management Plan the suite of applications is considered to be of discretionary activity status due to the status of the associated subdivision application.

1.4 The Application Site

The 1.805 hectare property lies to the west of Hart Road. An aerial photograph is attached as **Appendix 1** of this report (this also identifies the position of the ridgeline, indicative roads and indicative reserve areas).

The site is a rectangular in shape and is bisected by an unnamed stream which runs along the base of the northeast facing hillside. The flat terrain to the north east of the stream contains the gardens, plantings (orchard and native trees) and an area of pasture around the existing dwelling and other buildings. The land to the north west

of the stream is predominantly a steeper northeast facing hillside which is in pasture with a scattering of mature trees along the stream and boundaries. An area closest to the north western side of the hillside with a gentle slope has been identified as the proposed building site.

The surrounding properties appear to have a variety of land uses that include pastoral, recently cleared orchards, glasshouses and grapes with the closest residential dwellings located above the north east facing hillside on a prominent ridgeline.

Access to the property is via a long access leg on flat terrain from Hart Road which is in good repair. This access leg is contained predominantly within a separate certificate of title.

2. NOTIFICATION, SUBMISSIONS and AFFECTED PARTIES APPROVAL

Pursuant to Section 93 (1) of the Resource Management Act, the application was publicly notified as the adverse environmental effects were considered to be more than minor. Five submissions were received with one stating their neutral position and two opposing the applications and two in support. No written approvals of affected persons were obtained by the applicant. A map showing the location of submitters within the vicinity of the site is attached as **Appendix 2**.

Submission 1: Phillip V Lough, 53 Paton Road Richmond

Opposed to the proposal for the following reasons:

Concerned about the proximity of the proposed dwelling to their existing home and property and that this could compromise their property and lifestyle values. Consent was granted they have suggested conditions that they feel would reduce the impact of a nearby dwelling to their property. These include:

- limiting the dwelling to a single storey.
- Move the dwelling further from their adjoining boundary.
- Provision of landscape plantings on the western boundary to buffer the proposed development.

The submitter does not wish to be heard.

Submission 2: New Zealand Fire Service Commission

Neutral, making the following points:

- The water supply for fire fighting purposes will be sourced from a dedicated 23,000 litre water collection tank. This is less than the 45,000 litres capacity recommended by the NZFC Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2003.
- The Commission seeks that should consent be granted, a condition be imposed requiring compliance with the NZFC Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2003.

The submitter reserves the right to be heard.

Submission 3: Daryl Lindsay Fry, 33 Selbourne Avenue, Richmond

Supports the proposal.

- No reasons given.

The submitter does not wish to be heard.

Submission 4: K.J and D.D Edwards, 82 White Road, Richmond

Supports the proposal for the following reasons:

- That isolated blocks of rural land have little productive value and were suitable for lifestyle uses.

The submitter does not wish to be heard.

Submission 5: Bruce and Kate Hanna

Opposed to the proposal for the following reasons:

- Reverse sensitivity from the proximity of a residential activity near their rural property and associated rural land uses, vehicle movements close to proposed dwelling
- Proximity of proposed dwelling to their existing access, potential limitations to widening this access in the future and potential complaints against the use of their access.
- Potential limitations from the proximity of a residential dwelling in terms of future developments on their adjoining property.

The submitter wishes to be heard.

Affected Parties Approval

No written approvals were provided.

3. PRINCIPAL ISSUES

The principal issues associated with the applications are:

- a) Will the development be able to maintain an acceptable level of rural character and amenity that is anticipated by its Rural 1 zoning?
- b) Will the development affect productive use of the land in a manner that is contemplated by the Rural 1 zoning?
- c) Can access be provided across the proposed and water course to proposed Lot 2 and meet any access requirements for the drainage and recreation reserve?

- d) Should the indicative road, drainage and recreation reserve be vested at the time of this proposed subdivision?

4. STATUTORY PROVISIONS

The Council must consider the application pursuant to Section 104 of the Resource Management Act 1991.

The matters for the Council to address in Section 104 are:

- Part II matters;
- the actual and potential effects on the environment of allowing the activity (Section 104 (1)(a));
- relevant provisions of the Tasman Regional Policy Statement and the Proposed Tasman Resource Management Plan (Section 104 (1) (b));
- any other matter the Council considers relevant and reasonably necessary to determine the application (Section 104 (1)(c)).

5. RESOURCE MANAGEMENT ACT PART II MATTERS

In considering an application for resource consent, Council must ensure that if granted, the proposal is consistent with the purpose and principles set out in Part II of the Act.

Section 5 sets out the **purpose** of the Act which is to promote the sustainable management of natural and physical resources. "Sustainable management" means:

"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 -

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

Sections 6, 7 and 8 set out the **principles** of the Act:

Section 6 of the Act refers to matters of national importance that the Council shall recognise and provide for in achieving the purpose of the Act. There are no matters of particular relevance to this application.

Section 7 of the Act identifies other matters that the Council shall have particular regard to in achieving the purpose of the Act. Relevant matters to this application are:

- 7(b) the efficient use and development of natural and physical resources
- 7(c) the maintenance and enhancement of amenity values
- 7(f) maintenance and enhancement of the quality of the environment, and
- 7(g) any finite characteristics of natural and physical resources

These matters are addressed in section 6 of this report where it is considered that the above matters are met by this development.

Section 8 of the Act shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). I do not anticipate that there are any relevant issues for this application in respect of Section 8.

If consent is granted, the proposed activity must be deemed to represent the sustainable use and development of a physical resource and any adverse effects of the activity on the environment are avoided, remedied or mitigated.

These principles underpin all relevant Plans and Policy Statements, which provide more specific guidance for assessing this proposal.

5.2 Tasman Regional Policy Statement

The Regional Policy Statement seeks to achieve the sustainable management of land and coastal environment resources. The objectives and policies of the Policy Statement clearly articulate the importance of protecting land resources from inappropriate land use and development.

Because the Tasman Resource Management Plan was developed to be consistent with the Regional Policy Statement, it is considered that an assessment under the Proposed Plan will satisfy an assessment against Policy Statement principles.

5.3 Tasman Resource Management Plan

The most relevant Objectives and Policies to this application are contained in:

- Chapter 5 "Site Amenity Effects";
- Chapter 7 "Rural Environment Effects";
- Chapter 9 "Landscape"

The most relevant Rules which follow from these imperatives are contained in:

- Chapter 16.3. 'Subdivision',
- Chapter 17.5 'Rural 1 Zone',
- Chapter 16.2 'Transport'.

6. ASSESSMENT

This section sets out the consideration of the land use and subdivision applications and the submissions received, subject to Part 2, pursuant to Section 104(1)(a), (b), and (c) of the Resource Management Act.

The matters for assessment of discretionary subdivision and the construction of dwellings in the Rural 1 zone (in Rules 16.3.5.2 and 17.5.3.3) of the Plan, the objectives and policies and related Plan provisions, and the environmental effects of the proposal are assessed.

I have identified the following environmental effects in terms of Section 104(1)(a) of the Resource Management Act as relevant to this application. These relate to the relevant matters over which the Council has restricted its discretion in the TRMP. This includes:

- Schedule 16.3A Assessment Criteria for Subdivision;
- Schedule 16.3B Transport Standards;
- Matters of discretion 17.5.3.3

For the avoidance of duplication the assessment is set out under resource management matters.

6.1 Permitted Baseline

Under Section 104 (2) of the Resource Management Act the Council may use the “permitted baseline” test to assess the proposal. Under this principle the Committee may disregard and adverse effect of the activity on the environment if the Plan permits an activity with that effect.

Subdivision Permitted Baseline

In terms of the subdivision there is no permitted activity rule in the Rural 1 zone so the permitted baseline test is not considered relevant for subdivision.

Building Construction Permitted Baseline

In terms of the construction of a dwelling on proposed Lot 2 and the construction of a stream crossing there is no permitted activity rule in the Rural 1 zone so the permitted baseline test is not considered relevant for subdivision.

6.2 Written Approvals and assessment of effects

In accordance with Section 104(3)(b) of the Resource Management Act 1991 when considering an application the Council must not have regard to any effect on a person who has given written approval to the application unless before the date of the hearing, that person gives notice in writing that the approval is withdrawn. No written approvals have been provided as part of these applications:

6.3 Rural Land Productive Value

Objectives and Policies relating to Rural Land Productive Values

(The underlined terms are defined below).

Objective 7.1.2 *"Avoid the loss of potential for all land of existing and potential productive value to meet the needs of future generations, particularly land of high productive value".*

"High Productive Value" is defined in Chapter 2 of the PTRMP as:

"in relation to land, means land which has the following features:

- (a) flat to gently rolling topography;*
- (b) free-draining, moderately deep to deep soils;*
- (c) moderate to good inherent soil fertility and structure;*
- (d) a climate with sufficient ground temperate, sunshine, available moisture, and calmness to make the land favourable for producing a wide range of types of plants."*

Policy 7.1.3.2 seeks to: *"avoid, remedy or mitigate the effects of activities which reduce the area of land available for soil-based production purposes in rural areas."*

Policy 7.1.3.3 seeks to *"avoid, remedy or mitigate adverse actual, potential, and cumulative effects on the rural land resource."*

Policy 7.1.3.4 *"requires land parcels upon subdivision to be of a size and shape that retains the land's productive potential, having regard to the actual and potential productive values, the versatility of the land, ecosystem values, the management of cross-boundary effects, access, and the availability of servicing."*

Objective 7.2.0 *"Provision of opportunities to use rural land for activities other than soil-based production, including papakainga, tourist services, rural residential and rural industrial activities in restricted locations, while avoiding the loss of land of high productive value."*

Policy 7.2.3.1 *"to enable activities which are not dependent on soil productivity to be located on land which is not of high productive value"*

Policy 7.2.3.2 *"to enable sites in specific locations to be used primarily for rural residential purposes with any farming or other rural activity being ancillary, having regard to (a) to (k)".*

Policy 7.2.3.5 *"to ensure that activities which are not involved or associated with soil based production do not locate where they may adversely affect or be adversely affected by such activities"*

Subdivision Schedule matter 16.3A (1) *The productive value of the land in Rural 1, 2 and 3 zones and the extent to which the proposed subdivision will adversely affect it and its potential availability.*

6.3.1 Rural Land Productive Values Assessment

Any high productive value of the original property's land is limited by the following factors; the small area, steeper terrain on part of the site and the location of the stream which effectively separates the flat terrain from the steeper hillside. The proposed Lot 2 comprises the steeper north east facing hillside with an area with an easier gradient at the uppermost point of the site located along the northwest boundary. This 0.8 hectare area of land (Lot 2) would be further isolated from the balance of the site once the proposed indicative reserves are given effect too. The separation into two allotments would not increase any loss of productive capacity over and above the current situation.

6.4 Rural Character, Landscape, and Amenity Values

Objectives and Policies - Landscape, Rural Character and Amenity Values

(The underlined terms are defined below).

Objective 5.1.2 *“Avoidance, remedying or mitigation of adverse effects from the use of land on the use and enjoyment of other land and on the qualities of natural and physical resources”.*

Policy 5.1.3.1 *“To ensure that any adverse effects of subdivision and development on site amenity, natural and built heritage and landscape values, and contamination and natural hazard risks are avoided, remedied, or mitigated.”*

Policy 5.1.3.5 *“To ensure that the characteristics, including size, soil type and topography of each lot of any proposed subdivision or built development are suitable for sustainable on-site treatment of domestic waste in unreticulated areas, particularly in areas where higher risks of adverse effects from on-site disposal of domestic wastewater exist.”*

Policy 5.1.3.8 *“Development must ensure that the effects of land use or subdivision activities on stormwater flows and contamination risks are appropriately managed so that the adverse environmental effects are no more than minor.”*

Objective 5.2.2 *“Maintenance and enhancement of the amenity values on site and within communities throughout the District.”*

Policy 5.2.3.1 *“To maintain privacy in residential properties, and for rural dwelling sites.”*

Objective 7.4.2 *“Avoidance, remedying or mitigation of the adverse effects of a wide range of existing and potential future activities, including effects on rural character and amenity values.”*

Policy 7.4.3.1 *“To ensure that there is sufficient flexibility for a wide range of productive rural activities to take place, while avoiding, remedying or mitigating adverse effects”*

Policy 7.4.3.3 *“To provide for the maintenance and enhancement of local rural character, including such attributes as openness, greenness, productive activity, absence of signs, and separation, style and scale of structures”*

Objective 9.2.2 *“Retention of the contribution rural landscapes make to the amenity values and the environmental qualities of the District, and the protection of those values from inappropriate subdivision and development.”*

Policy 9.2.3.1 *“To integrate consideration of rural landscape values into any evaluation of proposals for more intensive subdivision and development than the Plan permits.”*

Policy 9.2.3.3 *“To retain the rural characteristics of the landscape within rural areas.”*

Policy 9.2.3.5 *“To evaluate, and to avoid, remedy, or mitigate cumulative adverse effects of development on landscape values within rural areas.”*

Subdivision Schedule matter 16.3A (2) *“The potential effects of the subdivision on the amenity values and natural and physical character of the area.”*

Subdivision Schedule matter 16.3A (28) *“The ability of any existing or proposed building to comply with this Plan, including avoiding adverse effects on ridgelines shown on the planning maps.”*

“Rural character” is defined in the TRMP (Chapter 2) as:

“the character of the land as shown by the predominance of rural productive activities and includes:

- (a) a high ratio of open space to built features;*
- (b) large areas of pasture, crops, forestry, and land used for productive end;*
- (c) built features associated with productive rural land uses;*
- (d) low population density;*
- (e) predominant form of residential activity directly associated with a productive land use;*
- (f) social and economic activity associated with productive land use;*
- (g) cultural values associated with farming and living on the land.”*

“Amenity values”, as defined in Section 2 of the Resource Management Act 1991, is set out below:

“Amenity values means those natural or physical qualities and characteristics of an area that contribute to people’s appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.”

6.4.1 Assessment of the Proposed Amenity, Landscape, and Rural Character

The current landscape of the immediate surrounding area comprises these aspects of “rural character”, with the provision of open space, and pastoral activities surrounding the site. The development of an additional dwelling on the upper hillside of the property would be visible from the more densely populated residential areas

along the southern end of Hill Street. But one additional dwelling below the identified ridgeline set within a rural landscape is not considered to increase the building density in this area to a level which would impact rural character and amenity.

The development of the building site and access road will involve earthworks but the application anticipates meeting the permitted standards. The earthworks will be a visual effect but will be temporary until slopes are replanted. An advice note is included advising applicants that further consent could be required if the permitted standards are not met once detailed design of these works is undertaken. Terra Firma have indicated in their report attached as **Appendix 5** that access, building site and onsite waste water can be achieved within the TRMP permitted standards.

The deferred residential zoning on the area to the north west of the stream on this property indicates that in the longer term it is anticipated this area will have a higher density of residential dwellings. With this in mind it is not considered that a dwelling on a 0.8 hectare area would be out of character.

The applicant has proposed general conditions limiting dwelling height and recessive colours that would help blend any dwelling into the rural setting in a manner that does not detract from the surrounding environs. The identified ridgeline lies to the north-west of the site and runs along the length of the south-north trending ridge. Any building on the proposed building location is required to be lower than a ridgeline identified in the TRMP planning maps. If consent is granted conditions of consent are proposed that require the height of any building to be lower than this ridgeline.

It is considered that the normal setbacks for buildings in a rural 1 zone are sufficient to ensure that effects across the boundary are minimal. The proximity of the adjoining Lough and Hanna properties, (both who have submitted in opposition, citing concerns with cross boundary effects and rural amenity values) is not considered an issue as the proposed building location is lower than the adjoining properties, both of whom are located on top of the ridgeline. Any access road would be located on the northeast hillside which is not visible from these properties.

A rural emanations easement in favour of the Hanna property would be an appropriate measure to mitigate any potential concern over limitations in relation to the normal rural use of their adjoining land.

There were no other submissions in opposition from the wider area.

6.5 Cross Boundary and Reverse Sensitivity Effects

Subdivision Schedule matter 16.3A (9) *“The relationship of the proposed allotments with the pattern of adjoining subdivision, land use activities and access arrangements, in terms of future potential cross-boundary effects.”*

6.5.1 Cross Boundary and Reverse Sensitivity Assessment

The creation of small rural residential allotment in a productive rural environment has potential to create cross-boundary effects. There appears to be no specific potential cross boundary effects from adjoining properties other than continued rural land uses. A submission from Mr and Mrs Hanna expressed concerns about cross boundary effects and the potential for a residential dwelling to limit the use of their

rural property specifically that proximity of their access to the proposed building location and associated traffic effects. It is considered that a rural emanations easement in favour of the Hanna's property would mitigate this concern and alert future owners to the effects of the adjoining rural land uses.

6.6 Transport Effects

Objectives and Policies relating to transport

Objective 11.1.0 *“A safe and efficient transport system, where any adverse effects of the subdivision, use or development of land on the transport system are avoided, remedied or mitigated.”*

Subdivision Schedule matter 16.3A 34) *“The degree of compliance with provisions of the current Tasman District Council District Engineering Standards, or the ability to achieve acceptable standards by alternative means.”*

Subdivision Schedule matter 16.3A 38) *“The ability to comply with the site access and vehicle crossing requirements of Rule 16.2.2.1.”*

Subdivision Schedule matter 16.3A (43) *“The effect of roads and private vehicular access on waterways, ecosystems, drainage patterns or the amenities of adjoining properties.”*

Subdivision Schedule matter 16.3A (45) *“Provision for the vesting of road reserves for the purpose of facilitating connections to future road extensions to serve surrounding land.”*

6.6.1 Assessment of Transport Matters

The proposed additional allotment will have access on to Hart Road via the existing crossing. Council's Development Engineer Mr Dugald Ley has provided an assessment of the traffic effects of the proposed subdivision which is attached to this report as **Appendix 3**.

Existing Crossing

Mr Ley has also confirmed that the existing vehicle crossing onto Hart Road and the access leg in its current formation albeit at a lower standard than outlined in Rule 16.2 of the TRMP it is satisfactory for an additional allotment until such time as the indicative roading connections for Richmond South are constructed.

Vesting of Road Reserves

The applicant has shown on the attached Plan A the areas of the property which are covered by the indicative road areas and they have agreed to these areas being vested in Council as road reserve. It should be noted that the area of the access leg between Hart Road and the indicative road area to be vested is being retained by the applicant within its own title; Council's Development Engineer Mr Dugald Ley has expressed an interest in having this area vested as road reserve in addition to the indicative reserve area.

Construction of a Stream Crossing Assessment

Access across the ephemeral stream bisecting the property would be required to provide access to Lot 2. A general application and assessment for a stream crossing is included under the original advice from Council's Development Engineer that a crossing design for the stream in its current form could be sufficient until such time that the indicative drainage and recreation reserve was constructed. The Envirolink report dated 5th September 2008 and entitled; "*Stream crossing investigation*" and attached as **Appendix 6** articulates the proposed design and construction but does not supply detailed plans. Further discussion between Council staff has indicated that there is some concern with this approach and that the crossing should be constructed to a standard that would allow the indicative reserve to be formed in the future without further need to alter the crossing. Details of required widths and proposed crossing design conditions are included in the report by Council's Development Engineer Mr Dugald Ley attached as **Appendix 3**

The construction of a culverted crossing in a watercourse, such as proposed in this application, can have an adverse effect on the environment. In this instance the primary adverse environmental effects include:

- effects on flooding as a result of the structure's presence;
- discharge of sediment and other contaminants during construction and maintenance activities;
- impediment to the migration of fish; and
- increased scour and erosion of the stream channel and adjacent land surfaces.

Effects on Flooding

The unnamed stream is a relatively small ephemeral tributary of the Waimea Inlet. Normal flows will be able to pass beneath the crossing. The crossing is located entirely within the applicant's property. Should consent be granted a condition of consent requiring no adverse effects to flood flows is to be included.

Discharge of Sediment and Other Contaminants

During the construction and maintenance works there is the potential for the discharge of contaminants to the watercourse, particularly the mobilisation of sediment. Other contaminants that may also be discharged include cement residues (which are alkaline) and the discharge of hydrocarbons from the machinery used during construction.

Should consent be granted a condition of would require that the construction and maintenance works are undertaken in a manner that avoids introducing silt or any other contaminants into the watercourse. This includes undertaking in stream works during periods of zero flow and adopting suitable sediment containment measures as appropriate. All machinery used should be refuelled and maintained away from the stream.

The new crossing will allow vehicles to access Lot 2 without entering the water and impacting on the water quality and to also maintain practical access to lot 2.

Impediment to the Migration of Fish

Structures in watercourses can present barriers to fish migration. The placement of the culverts with their inverts below bed level so that natural bed material is able to accumulate within the culverts will ensure that fish passage is not affected. Should consent be granted a condition of would require that fish passage is maintained.

Increased Scour and Erosion of Associated Land Surfaces and the River Channel

The construction and presence of the culvert, its approaches, and any associated rock protection has the potential to result in scour and erosion of the streambed and banks. Provided that appropriate design and construction practices are adopted, the proposed works should not result in adverse erosion or scouring effects. Should consent be granted a condition requiring engineering plans and approval which will ensure the appropriate design and construction.

No submissions were received from Fish and Game, Department of Conservation or Iwi representatives.

6.7 Public Open Space and Links

Objectives and Policies relating to public access and links

Chapter 14 outlines Councils objectives and policies for the provision of reserves and open spaces.

Objective 14.1.0 aims to ensure that there is an adequate area and distribution of a wide range of reserves and open spaces to maintain and enhance recreation, conservation, access and amenity values.

Policy 14.1.4 aims to provide for new open space areas that are convenient and accessible for users, including the provision of walking and cycling linkages in and around townships, between townships and between reserves.

Subdivision Schedule matter 16.3A (42) *“The provision, design and routes of cycleways, walkways and bridle-paths, including linkages between any site and local retail areas, schools, reserves, bus routes and arterial roads.”*

6.7.1 Public Access and Links Assessment

Rosalind Squire, the Council’s Reserves Planner has considered the proposal and in her report attached as **Appendix 4** emphasizes the importance of the indicative reserve shown on attached **Appendix 1** (10 metres recreation reserve and 15.2 metres of drainage reserve) being vested with Council at the time of this subdivision. The controlled standards contained within Rule 16.3.5.1(k) clearly articulates the TRMP expectation that Indicative Reserve Areas are to be vested in the Council as Local Purpose Reserve (walkway/recreation) and Local Purpose Reserve (drainage) at the time of subdivision. The significance of this matter is discussed more fully in Ms Squire’s report. Should the subdivision consent be approved conditions requiring the vesting these reserves have been included.

6.8 Natural Hazards

Matters of Discretion relating to natural hazards

Subdivision Schedule matter 16.3A (3) *“the extent to which the effects of natural hazards will be avoided or mitigated.”*

6.8.1 Assessment of potential for natural hazards

According to Council records there are no known natural hazard issues on this site. This is confirmed by Council’s Resource Scientist (Rivers and Coast), Mr Eric Verstappen. Both the application and TerraFirma’s geotechnical report attached as **Appendix 5** show an area of shallow slipping on the north east facing hillside which is not considered to limit the development of the site. Should consent be granted, the proposed building site on Lot 2 should be certified by a Chartered Professional Engineer as being suitable for residential development and the recommendations of the geotechnical report be included as conditions of consent.

6.9 Servicing Matters

Objectives and Policies relating to servicing

Policy 7.3.9 *“To avoid, remedy or mitigate servicing effects of rural subdivision and development, including road access, water availability and wastewater disposal.”*

Subdivision Schedule matter 16.3A (8A) *“For water supply, the extent of compliance with the “Drinking Water Standards for New Zealand 1995” or any subsequent replacement of this standard.”*

Subdivision Schedule matter 16.3A (10) *“Where wastewater disposal will occur within the net area of the allotment, the extent to which the site and soil assessment, design and construction of the system complies with the AS/NZS 1547; 2000, taking into account the requirements of rules in Chapter 36 regulating the discharge of wastewater.”*

Subdivision Schedule matter 16.3A (11) *“The adequate provision of potable water and water for fire fighting.”*

Water Supply Assessment

No reticulated water supply is available to the site; therefore a rainwater supply is required. Should consent be granted, conditions requiring a minimum of 23,000 litre capacity storage tank to be provided at for the dwelling on Lot 2, with a connection suitable for fire fighting purposes included. This satisfies the Plan permitted activity criteria for the volume of water stored on the site.

The Fire Service requested in its submission that the applicant achieves compliance with the NZ Fire Service Code of Practice. If the Committee decides to approve the applications I would recommend that this condition be imposed.

Waste Water Discharge Assessment

No additional consents for stormwater or wastewater discharges have been applied for and the application in conjunction with the Terra firma geotechnical report indicates that both stormwater and wastewater can be managed on site in accordance with Chapter 36 of the TRMP permitted standards. Should this consent be granted the Terra firma recommendations should be included as conditions of consent.

Power and Telephone Assessment

There do not appear to be any problems providing power and telephone servicing to the additional allotment.

Provided there are adequate legal instruments, such as Easements, which are recommended as conditions of consent if granted, the adverse effects of servicing are considered to be minor.

6.10 Other Matters (Section 104(c) RMA 1991)

Precedent

Case law has established that the granting of consent for one application may well have an influence on how another application should be dealt with. There are a limited number of similar circumstances where the Richmond South indicative reserve (drainage/recreation) could isolate part of a property that then would anticipate being dealt with in a similar manner to this consent. However the extent of influence of this consent will depend upon the extent of similarities.

Due to the consistency with the purpose of the Resource Management Act 1991 and the relevant provisions of the Proposed Plan, and the low level of environmental effects generated, the proposed land use activity and subdivision can be approved on its merits, and there is consequently no issue of precedent arising from the grant of consents.

Opposing Submitter's Concerns

It is noted that the opposing submitter's concerns which relate to property values and the opportunity to acquire an area of land from the applicant are outside the scope of this resource consent application and are not considered in this report.

7. SUMMARY AND CONCLUSIONS

- 7.1** The existing site is 1.8580 hectares in size, bisected by an ephemeral stream with the existing dwelling and associated lifestyle development being located to the north east of this stream while the land to the northwest is predominantly pasture covered hillside.
- 7.2** The proposal seeks to create one additional rural title, to construct a dwelling on the new allotment and to construct a stream crossing over the stream that bisects the property.

- 7.3 The property is zoned Rural 1 under the Tasman Resource Management Plan and this development is considered to be consistent with Schedule 16.3A and the relevant policies and objectives of the Plan.
- 7.4 The site's topography, small size and existing lifestyle developments (buildings/gardens) means that the land has low productive potential.
- 7.5 It is considered important that the land encompassed by the indicative reserves (road and recreation/drainage) should be vested with Council at the time of this subdivision.
- 7.6 Any stream crossing design should be in accordance with the conditions proposed by Council's Development Engineer.
- 7.7 The Terra Firma geotechnical report indicates that a practical access and building location can be achieved.
- 7.8 It is considered that the proposed subdivision together with the proposed mitigation measures will retain the rural character and amenity values that are anticipated by the Rural 1 zoning under the Tasman Resource Management Plan.
- 7.9 The proposal is considered to be consistent with Part 2 of the Resource Management Act 1991, and the policies, objectives, and matters of discretion of the Tasman Management Plan, in particular those in relation to the Rural 1 zoning of the property.

8. RECOMMENDATION

Subdivision Consent (RM080373)

That pursuant to Section 104B of the Resource Management Act 1991 the Tasman District Council **GRANTS** consent to the application by Christine Tuffnell to subdivide Part Section 34 District of Waimea East and Defined on Deposited Plan 4588 into two allotments.

Land Use consent (RM080374)

That pursuant to Section 104B of the Resource Management Act 1991 the Tasman District Council **GRANTS** consent to the application by Christine Tuffnell to construct one dwelling on Lot 2 of RM080373.

Land Use consent-stream crossing (RM080810)

That pursuant to Section 104B of the Resource Management Act 1991 the Tasman District Council **GRANTS** consent to the application by Christine Tuffnell to construct a stream crossing on Lot 1 of RM080373.

9. RECOMMENDED CONDITIONS

If the Committee grants the consents, I would recommend that approval include the following conditions:

RESOURCE CONSENT NUMBER: RM080373

Christine Tuffnell
(hereinafter referred to as “the Consent Holder”)

ACTIVITY AUTHORISED BY THIS CONSENT:

The subdivision proposal is to subdivide a 1.8580 hectare title (CT NL3D/844) to create proposed Lot 1 which would have an area of 1.058 hectares (containing an existing dwelling) and proposed Lot 2 (bare land) which would have an area of 0.8 hectares.

CONDITIONS

General

1. The subdivision shall be undertaken in general accordance with the information submitted with the application for consent and in particular with the plan entitled “*Proposed Subdivision of Pt Sec 34 DP4588*,” Job No. R731, June 2008, prepared by Cotton & Light Limited and attached to this consent as Plan A; “*Investigation Location Plan*,” Job No. 06010, 1/5/06, prepared by Terra Firma Engineering Ltd and attached to this consent as Plan B and the report entitled “*Geotechnical Building Site Assessment, Proposed Subdivision of 42 Hart Road Richmond*” dated 1 May 2006 and prepared by Terrafirma Engineering Ltd and attached to this consent as Appendix 5. If there is any conflict between the information submitted with the consent application and any conditions of this consent, then the conditions of this consent shall prevail.

Easements

2. Easements are to be created over any services located outside the boundary of the allotment that they serve. Reference to easements is to be included in the Council resolution on the title plan and endorsed as a Memorandum of Easements.
3. Easements shall be created over any right of way and shall be shown in a Schedule of Easements on the survey plan submitted for the purposes of Section 223 of the Act. Easements shall be shown on the land transfer title plan and any documents shall be prepared by a solicitor at the Consent Holder’s expense.
4. The survey plan that is submitted for the purposes of Section 223 of the Act shall include reference to easements.
5. A rural emanations easement shall be registered over Lots 2 in favour of Lot 2 DP 20243, (currently owned by B.W and K.J Hanna). This easement shall be in general accordance with the wording set out in Appendix D attached to this consent.

Financial Contributions

6. The Consent Holder shall pay a financial contribution for reserves and community services in accordance with following:

- a) The amount of the contribution shall be 5.5 per cent of the total market value (at the time subdivision consent is granted) of a notional 2,500 square metre building site within Lot 2.
- b) The Consent Holder shall request in writing to the Council's Consent Administration Officer (Subdivision) that the valuation be undertaken. Upon receipt of the written request the valuation shall be undertaken by the Council's valuation provider at the Council's cost.
- c) If payment of the financial contribution is not made within two years of the granting of the resource consent, a new valuation shall be obtained in accordance with (b) above, with the exception that the cost of the new valuation shall be paid by the Consent Holder, and the 5.5 per cent contribution shall be recalculated on the current market valuation. Payment shall be made within two years of any new valuation.

Advice Note:

A copy of the valuation together with an assessment of the financial contribution will be provided by the Council to the Consent Holder.

Advice Note:

Council will not issue a completion certificate pursuant to Section 224(c) of the Act in relation to this subdivision until all development contributions have been paid in accordance with Council's Development Contributions Policy under the Local Government Act 2002.

The Development Contributions Policy is found in the Long Term Council Community Plan (LTCCP) and the amount to be paid will be in accordance with the requirements that are current at the time the relevant development contribution is paid in full.

This consent will attract a development contribution on one allotment in respect of roading.

Vesting of Ownership

7. The survey plan which is submitted for the purposes of Section 223 of the Act shall show:
 - (a) The land shown as indicative reserve in the Tasman Resource Management Plan shall be vested in the Tasman District Council as Local Purpose Reserve (Drainage) and Local Purpose Reserve (Walkway/Recreation). The drainage portion of the reserve shall be 15.2 metres in width and the two walkway/recreation reserves on either side shall be 5 metres in width. The Local Purpose Reserve (Drainage) and (Walkway/Recreation) shall be shown as separate allotments on the scheme plan submitted for 223 approval.
 - b) In accordance with Rule 16.5.2.4 the area of land vested as Local Purpose Reserve (walkway/recreation) shall form part of the financial contribution for Reserves and Community Services.
 - c) The Local Purpose Reserve (road) shall be shown as a separate allotment on the scheme plan submitted for 223 approval.

- d) If at any time in the future an alternative road frontage be made available to Lot 2 then any access easement over the local purpose reserve (recreation and drainage shall be surrendered.

Advice Note:

Easements will required over any land vested with Council to allow access to be maintained to Lot 2.

Power and Telephone

8. Full servicing for underground power and telephone cables shall be provided to the boundary of Lot 2. The Consent Holder shall provide written confirmation to the Council's Engineering Manager from the relevant utility provider that live power and telephone connections have been made to the boundaries of the allotment. The written confirmation shall be provided prior to a completion certificate being issued pursuant to Section 224(c) of the Act.

Commencement of Works and Inspection

9. No works shall begin on-site until the Engineering Plans have been approved pursuant to Condition 10.

Advice Note

Prior to the commencement of work the Consent Holder and its representatives may be invited to meet with Council staff to discuss the work to be undertaken including (but not limited to) roles and responsibilities, timing of the works and reporting.

Engineering Works and Plans

10. All engineering works, including the stream crossing shall be constructed in accordance with the Council's Engineering Standards and Policies 2008 **and** to the satisfaction of Council's Engineering Manager and (with regards to fish passage) Mr Trevor James. Council's Resource Scientist – Environmental.

Engineering Certification

11. At the completion of works, a suitably experienced chartered professional engineer or registered professional surveyor shall provide the Council's Engineering Manager with written certification that all works, including stream crossing have been constructed in accordance with the approved Engineering Plans and the conditions of this consent.
12. Certification from a chartered professional engineer or geotechnical engineer experienced in the field of soils engineering (and more particularly land slope and foundation stability) that all building platforms and nominated building sites on Lot 2 are suitable for the erection of residential buildings shall be submitted to the Council's Engineering Manager. The certificate shall define on Lot 2 within the building location area, the area suitable for the erection of residential buildings and shall be in accordance with Schedule 2A of NZS 4404:2004 Land Development and Subdivision Engineering.

Advice Note

Any limitations identified in Schedule 2A may, at the discretion of the Council, be the subject of a consent notice pursuant to Section 221 of the Resource Management Act 1991 prior to the issue of the Section 224(c) certificate. This consent notice shall be prepared by the Consent Holder's solicitor at the Consent Holder's expense and shall be complied with by the Consent Holder and subsequent owners on an ongoing basis.

Building Location Areas

13. The building location area shall be as shown on Lot 2 of the "*Proposed Subdivision of Pt Sec 34 DP4588*," Job No. R731, June 2008, prepared by Cotton & Light Limited and attached to this consent as Plan A; "*Investigation Location Plan*," Job No. 06010, 1/5/06, prepared by Terra Firma Engineering Ltd and attached to this consent as Plan B attached to this consent as Plan B. The building location areas shall be shown on the survey plan which is submitted for the purposes of Section 223 of the Act.

Access within Lot 2 to the building site

14. Access shall be constructed to the minimum standards for a single user as specified in Figure 16.2 A of the TRMP.

Power and Telephone

15. Full servicing for underground power and telephone cables shall be provided to the boundary of Lot 2. The Consent Holder shall provide written confirmation to the Council's Engineering Manager from the relevant utility provider that live power and telephone connections have been made to the boundaries of the allotment. The written confirmation shall be provided prior to a completion certificate being issued pursuant to Section 224(c) of the Act.

Consent Notices

16. The following consent notices shall be registered on the certificate of title for Lots 1 and 2 pursuant to Section 221 of the Resource Management Act. The consent notices shall be prepared by the Consent Holder's solicitor and submitted to the Council for approval and signing. All costs associated with approval and registration of the consent notices shall be paid by the Consent Holder.

Building Location Areas

1. The location of any buildings shall be restricted to the building location area shown on the Survey Plan for 2 DP XXX and all dwellings shall be fully contained within the area identified.

The consent notice should also advise that the landowner will need to comply with the requirements of RM080374

Water Storage for Domestic use and Fire Fighting

- 2 .Any dwelling shall comply with SNZ PAS 4509:2003 – NZFS Fire Fighting Water Supplies Code of Practice.

Building Height

3. All buildings shall not exceed the following building height above natural ground level:
 - a) 5.5 metres above existing ground level on Lot 1; and
 - b) the height of the ridgeline identified on the TRMP planning maps adjacent to the northwest boundary.

Building Colour

4. The exterior of all buildings shall be finished in colours that are recessive and which blend in with the immediate environment. The consent holder shall submit to the Council for approval, prior to applying for building consent for a building, the following details of the colours proposed to be used on the walls and roof of the buildings:
 - a) the material to be used (e.g. paint, colour steel);
 - b) the name and manufacturer of the product or paint;
 - c) the reflectance value of the colour;
 - d) the proposed finish (e.g. matt, low-gloss, gloss); and
 - e) Either the BS5252:1976 (British Standard Framework for Colour Co-ordination for Building Purposes) descriptor code, or if this is not available, a sample colour chip.

The building shall be finished in colours that have been approved by the Council.

Advice Note:

As a guide, the Council will generally approve colours that meet the following criteria:

Colour Group*	Walls	Roofs
Group A	A05 to A14 and reflectance value $\leq 50\%$	A09 to A14 and reflectance value $\leq 25\%$
Group B	B19 to B29 and reflectance value $\leq 50\%$	B23 to B29 and reflectance value $\leq 25\%$
Group C	C35 to C40, reflectance value $\leq 50\%$, and hue range 06-16	C39 to C40, reflectance value $\leq 25\%$, and hue range 06-16
Group D	D43 to D45, reflectance value $\leq 50\%$, and hue range 06-12.	Excluded
Group E	Excluded	Excluded
Finish	Matt or Low-gloss	Matt or Low-gloss

* Based on BS5252:1976 (British Standard Framework for Colour Co-ordination for Building Purposes). Where a BS5252 descriptor code is not available, the Council will compare the sample colour chip provided with known BS5252 colours to assess appropriateness.

Advice Note:

The consent holder should engage the services of a professional to ensure the exterior cladding and colour selection are compatible with the long term durability of the building material in the subject environment and in accordance with the requirements under the Building Act 2004.

Advice Note:

A general condition limiting the building height, recessive colours and general building location was volunteered by the applicant (page 7 of the assessment of effects).

GENERAL ADVICE NOTES

Council Regulations

1. This resource consent is not a building consent and the Consent Holder shall meet the requirements of Council with regard to all Building and Health Bylaws, Regulations and Acts.

Other Proposed Tasman Resource Management Plan Provisions

2. Any activity not covered in this consent shall either comply with: 1) the provisions of a relevant permitted activity rule in the Proposed Tasman Resource Management Plan; or 2) the conditions of separate resource consent for such an activity.
3. In respect of stormwater discharges on Lot 2, the criteria of Tasman Resource Management Plan Permitted Activity Rule 36.4.2 must be complied with or, alternatively, a resource consent (discharge permit) is obtained for the stormwater discharge.
4. Access by the Council's Officers or its Agents to the property is reserved pursuant to Section 332 of the Resource Management Act 1991.
5. Council draws your attention to the provisions of the Historic Places Act 1993. In the event of discovering an archaeological find during the earthworks (e.g. shell, midden, hangi or ovens, garden soils, pit depressions, occupation evidence, burials, taonga, etc) you are required under the Historic Places Act, 1993 to cease the works immediately until, or unless, authority is obtained from the New Zealand Historic Places Trust under Section 14 of the Historic Places Act 1993.

Street numbering

6. The Consent Holder should lodge a road/street numbering application at the time the survey plan is lodged pursuant to Section 223 of the Act.

RESOURCE CONSENT NUMBER: RM080374

Christine Tuffnell
(hereinafter referred to as “the Consent Holder”)

ACTIVITY AUTHORISED BY THIS CONSENT:

To construct a dwelling on proposed Lot 2 of the subdivision application RM080373.

CONDITIONS

Development

1. The location of any building site and construction of any access shall be undertaken in general accordance with the information submitted with the application for consent and in particular with the plan entitled “*Investigation Location Plan,*” Job No. 06010, 1/5/06, prepared by Terra Firma Engineering Ltd and attached to this consent as Plan B and the report entitled “*Geotechnical Building Site Assessment, Proposed Subdivision of 42 Hart Road Richmond*” dated 1 May 2006 and prepared by Terra firma Engineering Ltd and attached to this consent as Appendix 5. If there is any conflict between the information submitted with the consent application and any conditions of this consent, then the conditions of this consent shall prevail.

Commencement Date and Lapsing of Consent

2. The commencement date for this land use consent shall be the issue date of the certificate of title for Lot 2.
3. This consent will lapse five years after the issue of the certificate of title for the respective allotments unless given effect to or otherwise extended pursuant to section 125 of the Resource Management Act 1991.

Building Location Areas

4. The location of any buildings shall be restricted to the building location area shown on the Survey Plan for 2 DPXXX and all dwellings shall be fully contained within the area identified.

Building Height

5. All buildings shall not exceed the following building height above natural ground level:
 - a) 5.5 metres above existing ground level on Lot 1; and
 - b) the height of the ridgeline identified on the TRMP planning maps adjacent to the northwest boundary.

Advice Note:

This condition was volunteered by the applicant (page 7 of the assessment of effects).

Building Colour

6. The exterior of all dwellings shall be finished in colours that are recessive and which blend in with the immediate environment. The consent holder shall submit to the Council for approval, prior to applying for building consent for a building, the following details of the colours proposed to be used on the walls and roof of the buildings:
- the material to be used (e.g. paint, colour steel);
 - the name and manufacturer of the product or paint;
 - the reflectance value of the colour;
 - the proposed finish (e.g. matt, low-gloss, gloss); and
 - Either the BS5252:1976 (British Standard Framework for Colour Co-ordination for Building Purposes) descriptor code, or if this is not available, a sample colour chip.

The building shall be finished in colours that have been approved by the Council.

Advice Note:

As a guide, the Council will generally approve colours that meet the following criteria:

Colour Group*	Walls	Roofs
Group A	A05 to A14 and reflectance value $\leq 50\%$	A09 to A14 and reflectance value $\leq 25\%$
Group B	B19 to B29 and reflectance value $\leq 50\%$	B23 to B29 and reflectance value $\leq 25\%$
Group C	C35 to C40, reflectance value $\leq 50\%$, and hue range 06-16	C39 to C40, reflectance value $\leq 25\%$, and hue range 06-16
Group D	D43 to D45, reflectance value $\leq 50\%$, and hue range 06-12.	Excluded
Group E	Excluded	Excluded
Finish	Matt or Low-gloss	Matt or Low-gloss

* Based on BS5252:1976 (British Standard Framework for Colour Co-ordination for Building Purposes). Where a BS5252 descriptor code is not available, the Council will compare the sample colour chip provided with known BS5252 colours to assess appropriateness.

Advice Note:

The consent holder should engage the services of a professional to ensure the exterior cladding and colour selection are compatible with the long term durability of the building material in the subject environment and in accordance with the requirements under the Building Act 2004.

Advice Note:

This condition was volunteered by the applicant (page 7 of the assessment of effects).

Water Storage for Domestic use and Fire Fighting

7. Each dwelling shall comply with SNZ PAS 4509:2003 – NZFS Fire Fighting Water Supplies Code of Practice.

Waste Water Disposal

8. Onsite waste water disposal shall be in accordance with the Terrafirma report attached to this consent as Appendix 5.

Advice Note:

Further consents could be required if the wastewater discharge does not meet the permitted standards in Chapter 36 of the TRMP for the rural 1 zone.

GENERAL ADVICE NOTES

Council Regulations

1. The applicant shall meet the requirements of Council with respect to all Building Bylaws, Regulations and Acts.

Other Proposed Tasman Resource Management Plan Provisions

2. This resource consent only authorises the activity described above. Any matters or activities not referred to in this consent or covered by the conditions must either: 1) comply with all the criteria of a relevant permitted activity rule in the Proposed Tasman Resource Management Plan (PTRMP); 2) be allowed by the Resource Management Act; or 3) be authorised by a separate resource consent.

Consent Holder

3. This consent is granted to the abovementioned consent holder but Section 134 of the Act states that such land use consents "attach to the land" and accordingly may be enjoyed by any subsequent owners and occupiers of the land. Therefore, any reference to "consent holder" in the conditions shall mean the current owners and occupiers of the subject land. Any new owners or occupiers should therefore familiarise themselves with the conditions of this consent as there may be conditions which are required to be complied with on an ongoing basis.

Development Contributions

4. The Consent Holder is liable to pay a development contribution in accordance with the Development Contributions Policy found in the Long Term Council Community Plan (LTCCP). The amount to be paid will be in accordance with the requirements that are current at the time the relevant development contribution is paid.

Council will not issue a Code Compliance Certificate until all development contributions have been paid in accordance with Council's Development Contributions Policy under the Local Government Act 2002.

Cultural Heritage

5. Council draws your attention to the provisions of the Historic Places Act 1993. In the event of discovering an archaeological find during the earthworks (e.g. shell, midden, hangi or ovens, garden soils, pit depressions, occupation evidence, burials, taonga, etc) you are required under the Historic Places Act, 1993 to cease the works immediately until, or unless, authority is obtained from the New Zealand Historic Places Trust under Section 14 of the Historic Places Act 1993.

RESOURCE CONSENT NUMBER: RM080810

Christine Tuffnell
(hereinafter referred to as “the Consent Holder”)

ACTIVITY AUTHORISED BY THIS CONSENT:

To construct a crossing across an unnamed tributary of the Waimea Inlet to provide vehicle access to proposed Lot 2 of the subdivision described in application RM080373.

CONDITIONS

General

1. All works shall be carried out in general accordance with the application and plans submitted on the application for resource consent RM080810, unless inconsistent with the conditions of this consent, in which case the conditions shall prevail

Commencement of Works and Inspection

2. No stream crossing works shall begin on-site until the Engineering Plans have been approved pursuant to Condition 5.

Advice Note

Prior to the commencement of work the Consent Holder and its representatives may be invited to meet with Council staff to discuss the work to be undertaken including (but not limited to) roles and responsibilities, timing of the works and reporting.

Engineering Works and Plans

3. All engineering works, associated with the stream crossing shall be constructed in accordance with the Council’s Engineering Standards and Policies 2008 **and** to the satisfaction of Council’s Engineering Manager and Mr Trevor James. Council’s Resource Scientist – Environmental.

Engineering Certification

4. At the completion of works, a suitably experienced chartered professional engineer or registered professional surveyor shall provide the Council’s Engineering Manager with written certification that all works, including stream crossing have been constructed in accordance with the approved Engineering Plans and the conditions of this consent.
5. The structure shall not alter the natural course of the river or reduce the channel’s capacity to convey flood flows. The culvert shall not cause any increase in upstream water levels which may cause flooding upstream or on neighbouring properties.
6. The culvert shall be built to safely overtop without causing structural failure and include a spillway to ensure safe passage of flood flows. The stream bank shall be armoured at the inlet and outlet of the culvert to prevent erosion.

7. The Consent Holder shall ensure that for the duration of this consent the flood overflow path and the low flow channel are maintained.
8. The Consent Holder shall ensure that for the duration of this consent any debris build-up is removed and ensure scour protection measures are installed and maintained at the inlet and outlet.
9. The culvert invert shall be submerged such that the structure provides for the safe passage of fish both upstream and downstream. There shall be no significant adverse effects on aquatic life or instream habitat as a result of the placement of the culvert.
10. No significant erosion, scour or deposition shall result from the placement of the culvert.
11. The disturbance of the bed shall be the minimum necessary to carry out the required works. Excess construction materials shall be removed from the river bed.
12. All equipment and surplus construction materials shall be removed from the river and the floodplain on the completion of that activity.
13. No contaminants (including, but not limited to, oil, hydraulic fluids, petrol, diesel, other fuels, paint or solvents, but excluding sediment) shall be discharged to water from the activity and no refuelling of equipment shall take place on any area of the river bed.
14. For monitoring purposes the Consent Holder shall inform the Council's Co-ordinator Compliance Monitoring at least 24 hours prior to the works commencing.

Review of Consent Conditions

15. The Council may, during the month of March each year, review any or all of the conditions of the consent pursuant to Section 128 of the Resource Management Act 1991 for all or any of the following purposes:
 - (a) to deal with any adverse effect on the environment which may arise from the exercise of the consent that was not foreseen at the time of granting of the consent, and which is therefore more appropriate to deal with at a later stage; and/or
 - (b) to require the Consent Holder to adopt the best practical option to remove or reduce any adverse effects on the environment resulting from the discharge; and/or
 - (c) to review the contaminant limits, loading rates and/or discharge volumes and flow rates of this consent if it is appropriate to do so; and/or
 - (d) to review the frequency of sampling and/or number of determinands analysed if the results indicate that this is required and/or appropriate.
 - (e) to require consistency with any relevant Regional Plan, District Plan, National Environmental Standard or Act of Parliament.

Expiry

16. The consent is granted for a period of 35 years, which is the maximum duration allowed under Section 123 of the Resource Management Act 1991.

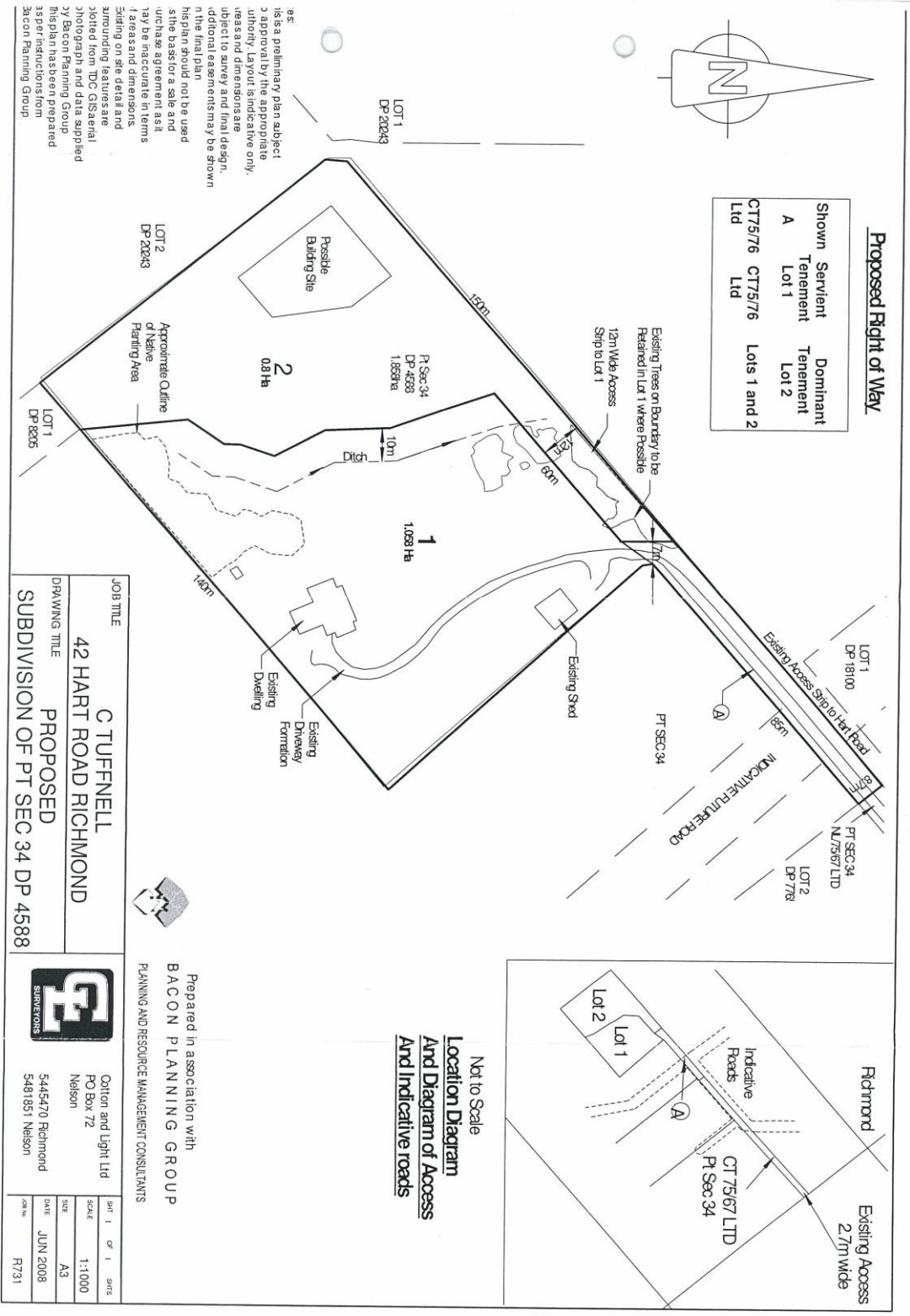
ADVICE NOTES

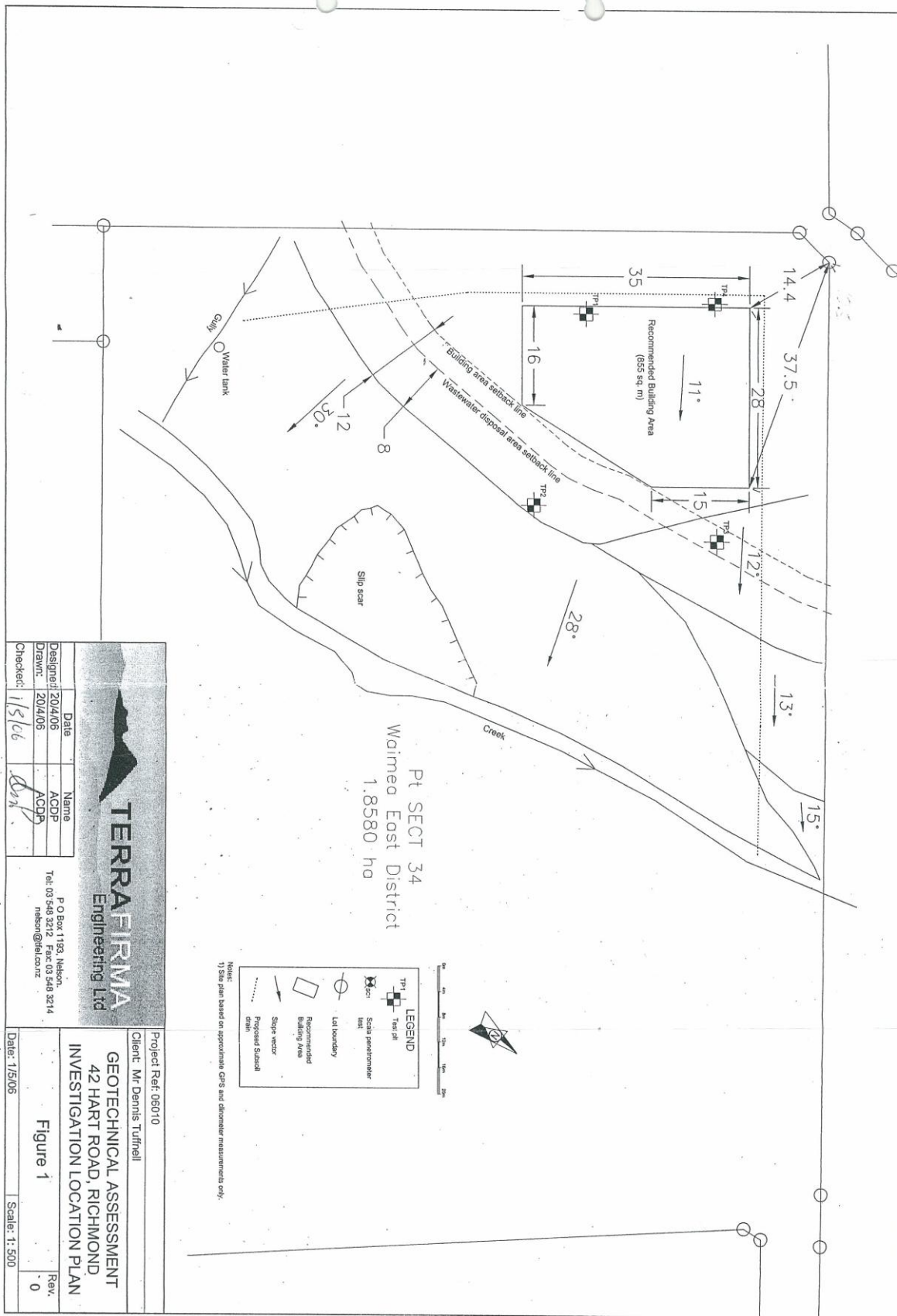
1. To allow for fish passage, the culvert inlet should be set well below the current streambed.
2. Both the culvert's gradient and alignment should be equal to the stream's natural shape.
3. Officers of the Council may also carry out site visits to monitor compliance with resource consent conditions.
4. The Consent Holder should meet the requirements of the Council with regard to all Building and Health Bylaws, Regulations and Acts.
5. Access by the Council or its officers or agents to the property is reserved pursuant to Section 332 of the Resource Management Act.
6. All reporting required by this consent should be made in the first instance to the Council's Co-ordinator Compliance Monitoring.
7. Council draws your attention to the provisions of the Historic Places Act 1993 that require you in the event of discovering an archaeological find (eg, shell, midden, hangi or ovens, garden soils, pit, depressions, occupation evidence, burials, taonga) to cease works immediately, and tangata whenua, the Tasman District Council and the New Zealand Historic Places Trust should be notified within 24 hours. Works may recommence with the written approval of the Council's Environment & Planning Manager, and the New Zealand Historic Places Trust.
8. This resource consent only authorises the activity described above. Any matters or activities not referred to in this consent or covered by the conditions must either:
 - (a) comply with all the criteria of a relevant permitted activity rule in the Tasman Resource Management Plan (TRMP);
 - (b) be allowed by the Resource Management Act; or
 - (c) be authorised by a separate resource consent.
9. Plans attached to this consent are (reduced) copies and therefore will not be to scale and may be difficult to read. Originals of the plans referred to are available for viewing at the Richmond office of the Council. Copies of the Council Standards and documents referred to in this consent are available for viewing at the Richmond office of the Council.

10. Monitoring of this resource consent will be undertaken by the Council as provided for by Section 35 of the Act and a one-off fee has already been charged for this monitoring. Should the monitoring costs exceed this fee, the Council reserves the right to recover these additional costs from the Consent Holder. Costs can be minimised by consistently complying with conditions, thereby reducing the necessity and/or frequency of Council staff visits.

A handwritten signature in black ink, reading "P. J. Webby." The signature is written in a cursive style with a period at the end.

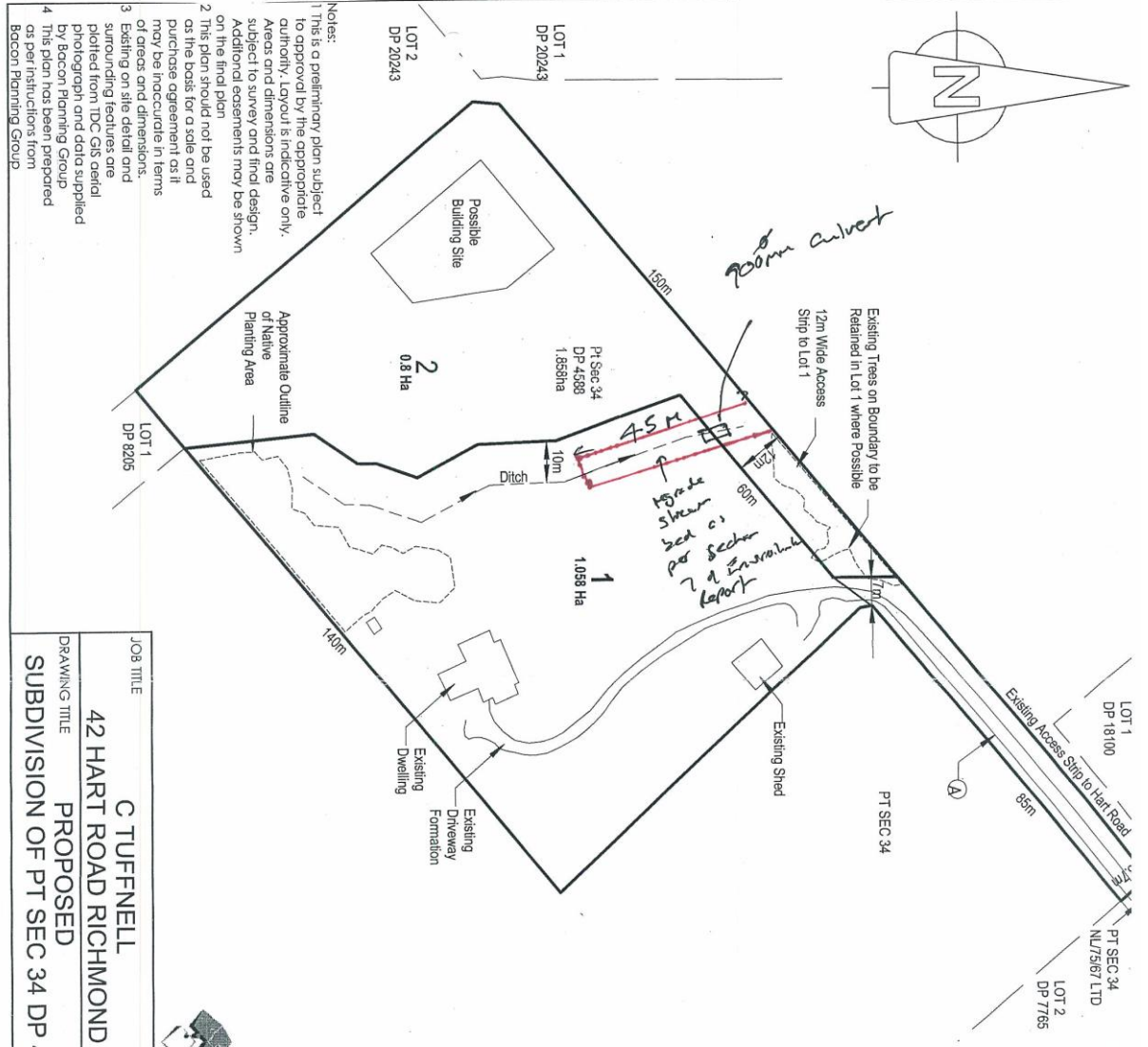
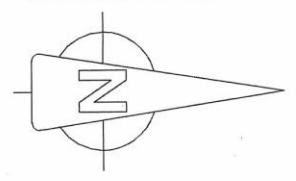
Pauline Webby
Consent Planner



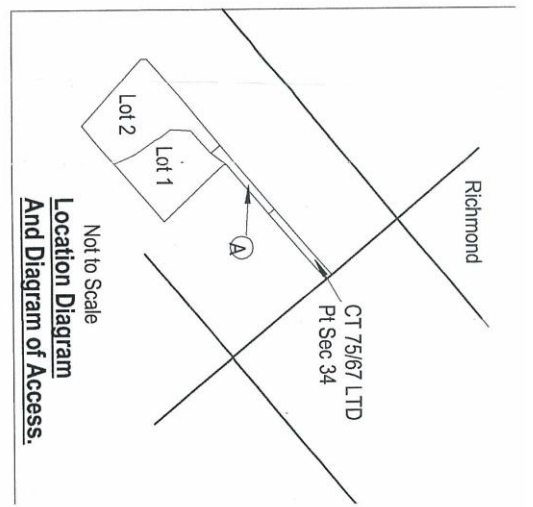


		Project Ref: 06010 Client: Mr Dennis Turnell
Designed: 20/4/06 Drawn: 20/4/06 Checked: 1/5/06	Name: ACDP Name: ACDP Date: 20/4/06	P O Box 1193, Nelson, Tel: 03 548 3212 Fax: 03 548 3214 nelson@terrafirmaltd.com
GEOTECHNICAL ASSESSMENT 42 HART ROAD, RICHMOND INVESTIGATION LOCATION PLAN		Figure 1 Rev. 0
Date: 1/5/06 Scale: 1:500		Date: 1/5/06 Scale: 1:500

Time 6 SL87217



Notes:
 1 This is a preliminary plan subject to approval by the appropriate authority. Layout is indicative only. Areas and dimensions are subject to survey and final design. Additional easements may be shown on the final plan.
 2 This plan should not be used as the basis for a sale and purchase agreement as it may be inaccurate in terms of areas and dimensions.
 3 Existing on site detail and surrounding features are plotted from TDC GIS aerial photograph and data supplied by Bacon Planning Group.
 4 This plan has been prepared as per instructions from Bacon Planning Group.



Shown Tenement	Servient Tenement	Dominant Tenement
A	Lot 1	Lot 2
CT75/76 Ltd	CT75/76 Ltd	Lots 1 and 2



Prepared in association with
BACON PLANNING GROUP
 PLANNING AND RESOURCE MANAGEMENT CONSULTANTS

JOB TITLE
C TUFFNELL
42 HART ROAD RICHMOND
 DRAWING TITLE
PROPOSED
SUBDIVISION OF PT SEC 34 DP 4588

	Cotton and Light Ltd	5445470 Richmond	DATE	APR 2008
	PO Box 72 Nelson	5481851 Nelson	SCALE	1:100
			SIZE	A3
			JOB No.	R731

Right to Emit Noise from Hail Cannons and Other Farming Activities/Equipment, Dust and Odour from Farming Activities, and Drift from Agricultural and Horticultural Sprays

1. Definition

In this easement the term “authorised farming activities” means all rural activities, including farming and horticultural crop production (and in particular, odour and noise from farming activities, the spraying for weeds and horticultural pests and diseases and the use of hail cannons to protect against hail damage to fruit crops) together with any other activity permitted under the relevant District Resource Management Plan for the time being in force and any existing uses and any activity permitted by any resource consent(s). The term “authorised farming activities” shall also include any other activity ancillary to the activities already defined or necessary therefore.

2. Rights and Powers

The owners or occupiers from time to time of the Dominant Tenement shall have the full, free, uninterrupted and unrestricted right, liberty and privilege for themselves and their respective servants, tenants, agents, licensees and grantees from time to time to emit noise from hail cannons and other farming practices and equipment, odour from farming activities, and drift from agricultural and horticultural sprays and to allow such emanations to escape, pass over or settle on the Servient Tenement in the course of the use of the Dominant Tenement for rural purposes with the intent that such aforementioned rights shall run with the Servient Tenement and be forever appurtenant to the Dominant Tenement.

3. Terms, Conditions, Covenants, or Restrictions in Respect of the Above Easement

- (a) The owners or occupiers from time to time of the Servient Tenement shall allow authorised farming activities to be carried out on the Dominant Tenement without interference or restraint.
- (b) All noise emitted from hail cannons, and farming practices and equipment shall not exceed the maximum level permitted in any relevant District Resource Management Planning document.

The owners or occupiers from time to time of the Servient Tenement shall not:

- (i) make or lodge; nor
- (ii) be party to; nor
- (iii) finance nor contribute to the cost of;

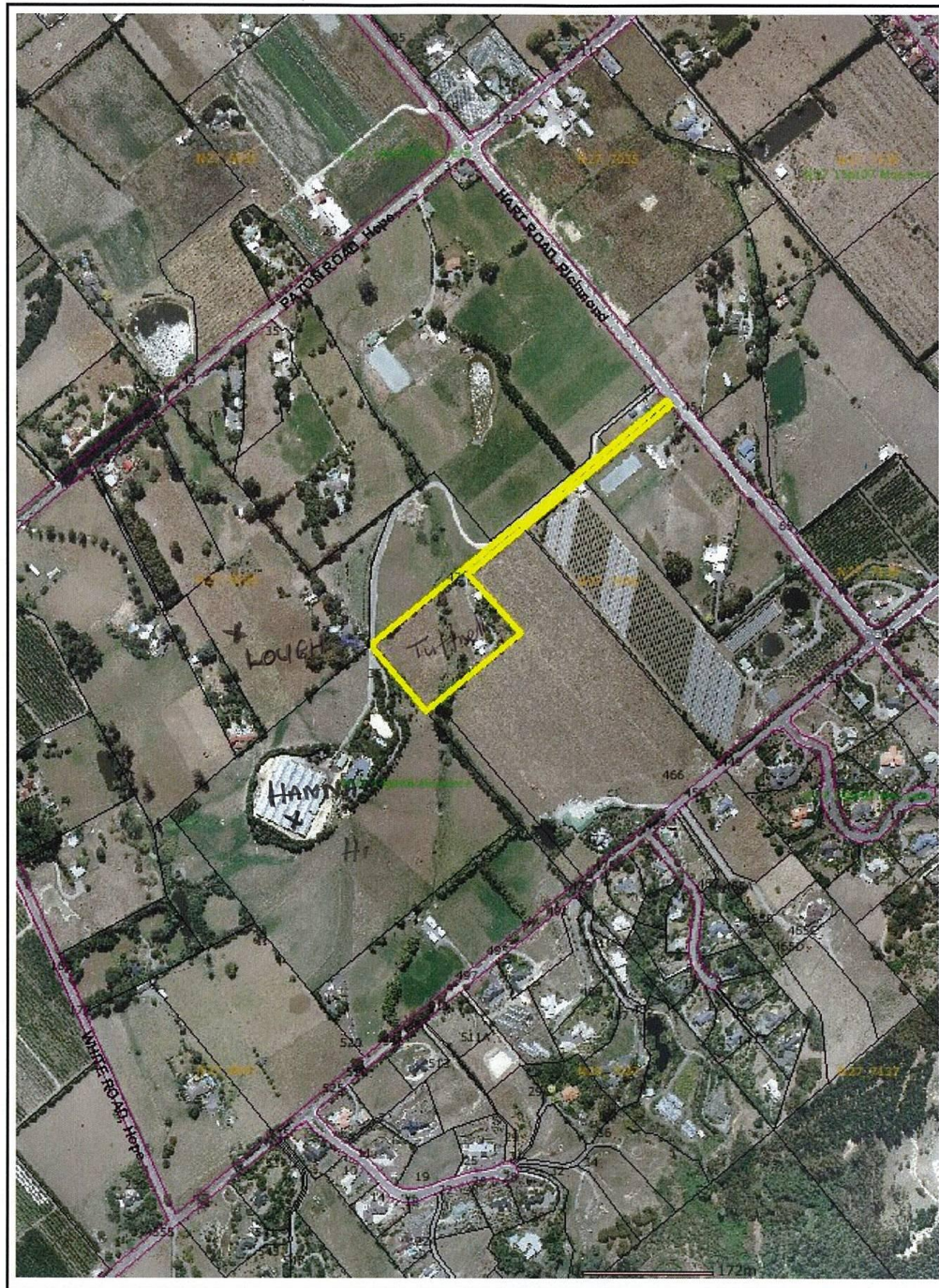
any submission, application, proceeding or appeal (either pursuant to the Resource Management Act 1991 or otherwise) designed or intended to limit, prohibit or restrict the continuation or recommencement of the authorised

farming activities by the owners or occupiers from time to time of the Dominant Tenement.

- (c) The owners or occupiers from time to time of the Dominant Tenement shall at all times use sprays in accordance with usual agricultural and horticultural practices in the District.

APPENDIX 1
Aerial photograph of site, ridgeline and indicative reserves





ExploreTasmanMap

13/1/2009 DISCLAIMER:

This map is derived from ExploreTasman and has generally been compiled from data generated by and supplied to the TDC. It has no legal status and is known to be incomplete. To ascertain the exact location of any item, TDC advises that the customer arrange onsite verification. TDC will not be liable for any damages or loss whatsoever suffered from the use of this information.
Cadastre sourced from Land Information New Zealand data. Crown Copyright reserved.

<http://tsrvims-9/servlet/com.esri.esrimap.Esrimap?ServiceName=ExploreTasman&Cli...> 13/01/2009

TO: Chairman and Members, Environment & Planning Hearings Committee

FROM: Dugald Ley, Development Engineer

DATE: 17 December 2008

REFERENCE: RM080373

SUBJECT: **C TUFFNELL – 42 HART ROAD, RICHMOND**

INTRODUCTION

The above 2.074 hectare property to the west of the Hart rd “cutting” has a split zoning and the zoning issues are covered in the planner’s report.

The applicant’s plan shows that the property will be subdivided into two sites with the boundary between the two generally down the southern side (ie 10 metre offset) from the unnamed creek. The access leg to the site is shown as a private ROW.

On 15 May 2008, the applicant was requested to show various additional information, ie indicative roads and other details and this has been received.

BACKGROUND

The land is encompassed in the deferred zoned land known as Richmond South. The deferrals are due to service limitations which have yet to be provided by Council as part of the LTCCP programme. Also shown on the land are indicative roads and drainage reserve areas.

a) Indicative Roads

The site is accessed via an 8.7 metre wide (approximately) strip of land owned by the applicant. (This can be classed as a rear site). The strip emerges on to Hart Road at a position that does not give ideal vehicle visibility for more than what is presently in existence.

To allow the ultimate development of the area Council, through a public process, located indicative roads and when developers develop their land they form up these roads to the boundary of the next owner. The indicative road connecting to Hart Road was chosen for safety reasons some 190 metres to the west of the applicant’s Hart Road access. The indicative road then traverses the Tuffnell’s access leg for approximately 170 metres.

The reason this position was set by Council, was that it would straddle the Tuffnell leg and also the Hanna leg. When subdivision occurs over a large block with various owners and access legs in existence, it becomes very difficult to dispose of the strips as

- i) they give little benefit to other owners; and
- ii) the owner usually wants compensation for them.

The two attached photos give examples where these strips are abandoned and become a liability to an owner and to Council.

In the Tuffnell case this strip could vest as road reserve until it is ultimately required to be formed up as road by an adjoining owner. Obviously no compensation is paid for these areas that will come into Council ownership as road.

It is my view that the 8.7 metre strip be shown as road reserve out to Hart Road. The strip can continue to be used by the Tuffnells until alternative access is provided by the indicative road.

The attached plan shows the area to be shown as road reserve.

b) Drainage Reserve and Stream Crossing

As mentioned previously the split zoning lies along the future drainage reserve over the unnamed stream.

The reserve area is made up of 15 metres covering the stream and new floodway plus 2 x 5.0 metre reserve areas each side to accommodate public access and amenity planting – total width 25.0 metres. I.e 12.5m either side of the stream on a general curve alignment.

The stream will be slightly straighter but will have a meandering low flow channel within the waterway. This design can be confirmed at engineering plan stage and will comply with the Engineering Standards & Policies 2008.

In essence once this drainage reserve is completed via construction and vesting then the balance land on the west side of the stream will be landlocked. The applicant was asked to obtain access over the Hanna land adjacent but I understand that the Hanna's have refused.

Presently there is only one existing vehicle access over the unnamed creek, this being the Hanna access (see plan).

Council has accepted that at least one crossing of the drainage reserve has to be permitted and this was the Hanna property as:

- i) it is already in use; and
- ii) it is the only legal access to their site.

Where this access (Hanna) is located will require a number of design features including:

- i) a flood-free stream crossing for a Q50 event plus freeboard;
- ii) fish passage; and
- iii) protection of pedestrians/cyclists who will ultimately be moving up and down the streamside walkways.

It is my opinion that to have another crossing (Tuffnell) 150 metre upstream will cause additional constraints and compromise the functioning of the drainage reserve and walkway system.

I am sympathetic to the Tuffnell situation where ultimately one parcel of land (east side) can be developed for residential purposes and the balance parcel (rural) can be left isolated with no access and possibly with no ability to farm it or build a dwelling on it.

I am unsure of the soil quality but being on a steep hillside (restricting use of machinery to cultivate) and little access to water, then its productive potential would be low.

It is my view that the balance land on the south side of the unnamed stream could be developed for one dwelling (consent notice). If the committee were in agreement with this, both legal and practical access needs to be provided. In my view this could be provided via "licence to occupy" or suitable agreement with Council that:

- i) the access over the stream be designed to a Q15 storm event, ie pipe or bridge with side barriers and secondary flow path (concrete) to be created over the structure; Overall stream waterway to be Q50 plus free board.
- ii) Minimum 3.0 metre width;
- iii) No disruption to fish passage;
 - over the stream will then be decommissioned and agreement ceased.
- vi) Reserve vested in TDC:
 - Reserve area shown on 223 plan between lots 1 and 2. Formal access agreement between TDC and applicant;
 - Culvert crossing and secondary flow path (concrete) to be maintained by the owner;
 - Access each side of the bridge structure and out to the edge of the drainage reserve to be in gravel "all weather" surface and to Councils ultimate design;
 - Agreement on the removal of the access crossing on the reserve when alternative access to lot 2 is arranged over "other" land.

Should the committee decide to grant consent then conditions as included in the planners report could mitigate effects of the subdivision;

Dugald Ley
Development Engineer

Memorandum

Environment & Planning Department

To: Environment and Planning Consents Committee

From: Rosalind Squire – Planner, Community Services

Date: 14 January 2009

Subject: **RM080373 – Tuffnell, 42 Hart Road, Richmond East**

The report by the principal planner outlines the proposed subdivision. This memorandum provides comments from the Community Services Department of Council with respect to the provision of reserves within the subdivision. Community Services staff have visited the site and have considered the application in the wider context of the Richmond South Development Area.

Application and context

The application as lodged seeks consent to subdivide a 1.8 hectare property into two allotments. The land has a split Rural 1 and 2 zoning and is the subject of an indicative reserve notation over the water course that bisects the property (See Figure 1 and 2 below). The indicative reserve has a total width of 25.2 metres and comprises a 15.2 metre wide drainage portion with a 5 metre wide walkway/recreation area on either side. Although the application states that the applicant is prepared to make provision for the future vesting of the indicative reserve in the subdivision design, they are not proposing to vest the land as part of this subdivision.

Background - Indicative Reserve

The variation to the Tasman Resource Management Plan which introduced the deferred residential zoning in the Richmond South Development Area also introduced a network of greenways principally to accommodate the natural and accelerated storm water flows but also to provide an open space network that links the hills to the sea and creates a perimeter pedestrian and cycleway network linking the residential environments of Richmond East, West and South with one another.

The controlled activity rule for subdivisions in both the Residential, Rural 1 and Rural 2 zones requires that land which is the subject to an indicative reserve notation on the planning maps to be set aside and vested in Council upon subdivision. The rule states that reserve areas are to be vested in Council as Local Purpose (walkway/recreation) and Local Purpose reserve (drainage) with the land being vested as Local Purpose Reserve (walkway/recreation) forming part of the financial contribution for reserves and community services in accordance with Rule 16.5.2.4.

The vesting of the indicative reserves on subdivision is also required in the corresponding discretionary rule in the Residential, Rural 1 and Rural 2 zones.

The rationale for requiring the vesting of the land at this point in time is that it is uncertain when or if the land will be further subdivided. The plan rules envisage that the land will be vested on subdivision at the earliest opportunity in order for all the links in the greenway network to be made as and when the opportunity arises.

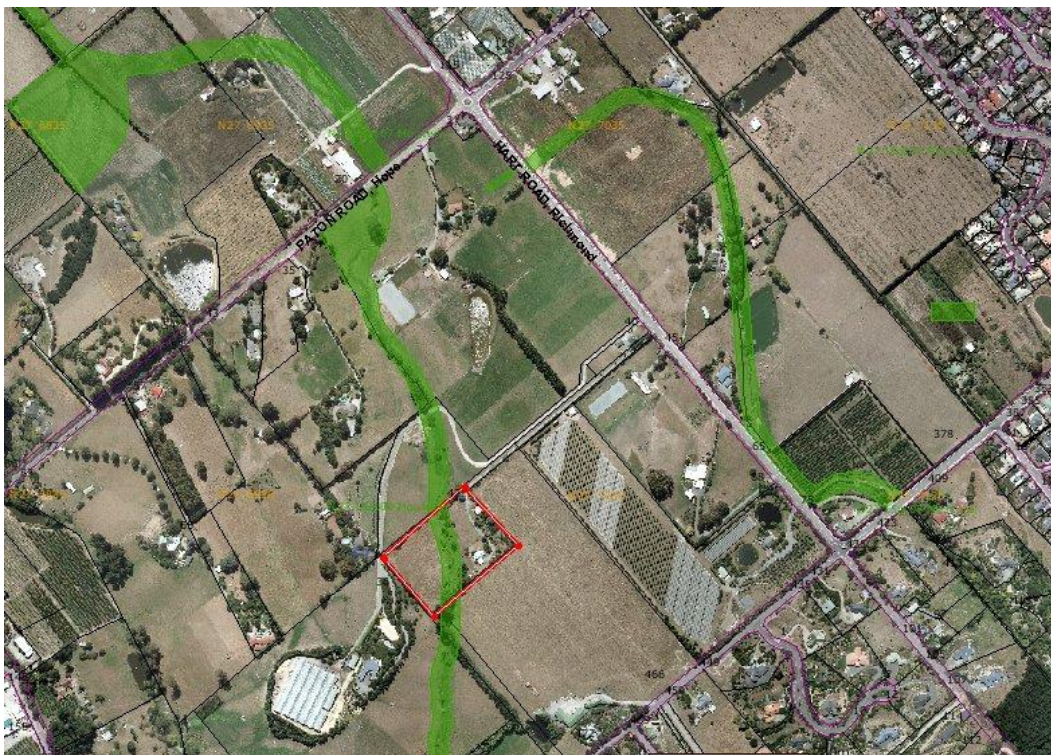


Figure 1 – Location of the greenway in the Richmond South Development Area

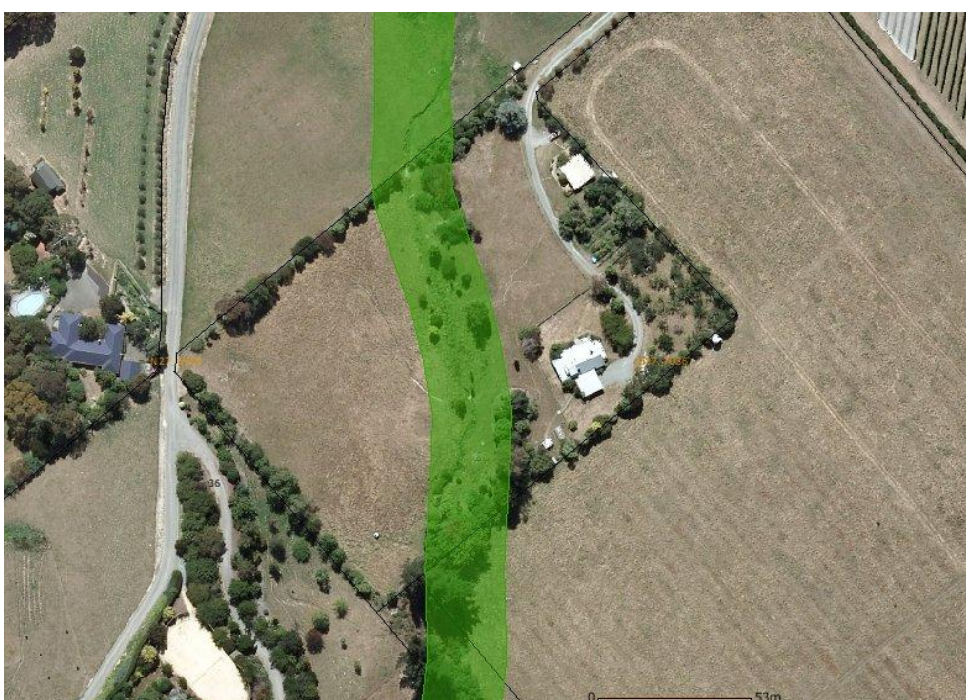


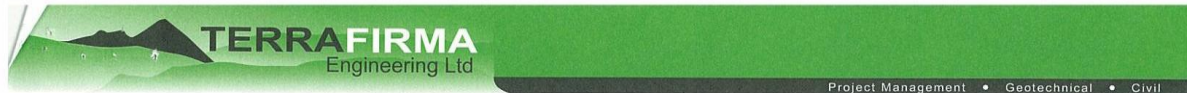
Figure 2 – Location and extent of the greenway on the applicants property

Recommendations

That if Council approves the subdivision the following conditions be imposed:

1. The land shown as indicative reserve in the Tasman Resource management Plan shall be vested in the Tasman District Council as Local Purpose Reserve (Drainage) and Local Purpose Reserve (Walkway/Recreation). The drainage portion of the reserve shall be 15.2 metres in width and the two walkway/ recreation reserves on either side shall be 5 metres in width. The Local Purpose Reserve (Drainage) and (Walkway/Recreation) shall be shown as separate allotments on the scheme plan submitted for 223 approval.
2. In accordance with Rule 16.5.2.4 the area of land vested as Local Purpose Reserve (walkway/recreation) shall form part of the financial contribution for Reserves and Community Services.

Rosalind Squire
Planner, Community Services



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Our Ref.: 06010
1 May, 2006

Dennis Tuffnell
42 Hart Road
Richmond

Attention: Dennis Tuffnell

Dear Mr Tuffnell

**Geotechnical Building Site Assessment,
Proposed Subdivision of 42 Hart Road, Richmond.**

Introduction

This report presents the results of a geotechnical assessment undertaken on a rural lot at 42 Hart Road, Richmond (being Part Sec 34, Waimea East District), for a proposed new building site. Authority to proceed with the assessment was provided in writing by Dennis Tuffnell on 11 April 2006. Terra Firma Engineering Ltd's (TFEL) proposal dated 11 April 2006 sets out the scope of work and conditions of engagement. We discussed disposal of wastewater on the site with Mr Tuffnell on 13 April 2006, and our assessment of options for this form a Variation to our original engagement.

The proposal consists of a subdivision of the existing property to create a new lot on the hillside above the existing dwelling. This report defines an area suitable for building a new dwelling on this proposed new lot.

The general arrangement is shown on attached Figure 1.

We met with Dennis Tuffnell on site on 13 April 2006. Mr Tuffnell indicated to us the position of his preferred building site, and we planned our investigations around this point.

A prerequisite for subdivision is a suitable building site on any potential new lot. This report assesses the proposed new lot in terms of provision of a building site suitable for residential development, and assesses the potential of the site to support on-site wastewater treatment and disposal, as this area is currently not reticulated.

Geotechnical Assessment

The current geotechnical assessment comprised:

- review of data on the site and surrounding area;
- site inspection to assess approximate extent of the proposed new lot;
- excavation and logging of four test pits on the lot;
- assessment of soil strength and characteristics;
- assessment of soil suitability for waste disposal in terms of AS/NZS 1547:2000;
- assessment of the impact of development on overall slope stability;
- Scala penetrometer testing within the proposed building area;

- production of this letter report.

Subsurface investigations were undertaken as part of the assessment process on 13 April 2006.

Site Assessment

Surface Characteristics

The proposed building site is situated on the eastern side of a broad ridge trending north-south and plunging gently to the north at an angle of around 4°. The site has two distinct zones, with the proposed building site being a gently sloping area situated at the top of a moderately steep to steep slope, which faces east north east. At the foot of the steep slope is a creek, which flows northward. Mr Tuffnell has told us that the new lot would include all of the land to the west of the creek that is currently part of the existing property.

The steep slope is well developed with terracettes, indicative of actively creeping surface soils. Towards its southern end, a large slip has developed¹. The slip scar covers a plan area of around 400 m² and has been repaired by a combination of loose filling and hydroseeding. Mr Tuffnell has told us that a subsoil drain was installed as part of the repair in this area. A good growth of grass is established on this repaired area. Apart from this feature, we did not observe any other signs of large scale slope instability on the site.

Another slip has occurred on the neighbouring property to the west, upslope from the site. This arcuate slip has not been investigated, but observations from a distance showed that the scarp appeared to have a maximum height of around 600-800 mm, and the lateral extent was around 20 m. The run out area below this slip does not affect the proposed building area.

The southern end of the site is incised by a steeply sloping gully which leads down from the slip affected area on the neighbouring property to the west. This gully is currently the site of a domestic water supply tank and associated pipework. It does not appear to have been affected by the slip upslope.

The whole area is in grass, and is currently grazed. The northern end of the site is covered in a moderate growth of reeds. We did not observe any marshiness or other surface water away from the stream at the lower end of the site.

Sub-Surface Characteristics

The underlying geology of the area is mapped (DSIR 1979) as a ridge of clay and silt bound rounded sandstone and greywacke gravels of the Moutere Gravel Formation, surrounded by poorly sorted alluvial gravels of the Stoke Fan Gravel Formation. Site geology as exposed in four test pits consisted of tightly packed, silty-clay bound, slightly to highly weathered sandstone gravels and cobbles consistent with the published mapping and our experience of the Moutere Gravel Formation in this locality. The plains and agricultural land downslope from and close to the site are inferred as being underlain by Stoke Fan Gravels.

Four test pits (TP1-4) were excavated on the lot, in the positions shown on attached Figure 1. The test pits all exposed similar soils, being a dark brown, silty organic topsoil overlying loose

¹ *Pers. comm.* – This slip occurred during extremely heavy rain (anecdotally an 80 year return period event) in May 2003.

to tightly packed, silty-clay bound, rounded to subrounded, medium gravel to cobble size, slightly to highly weathered sandstone clasts inferred as residual soil derived from Moutere Gravel, which in turn graded into denser packed material of similar composition, inferred as *in-situ* Moutere Gravel.

TP1 and TP4 exposed a moderately well cemented, iron stained, sub-horizontal layer of varying but approximately 100 mm thickness at a depth of around 1.5 m. This layer, inferred as an ironpan, appears to be of lower overall permeability than the main body of the overlying soils, and acts as an aquiclude, causing localised perching of the groundwater above it. Groundwater was observed entering both TP1 and TP4 above this layer. The rate of inflow in TP1 was significantly greater than that observed in TP4.

Both TP2 and TP3 were dry, and we did not observe strong evidence of a continuation of the ironpan layer in either pit.

The test pit logs (TP1-TP4) are attached.

We carried out Scala penetrometer testing in TP1 and adjacent to TP1, 2 and 3. The testing within the building area showed that the topsoil and immediately underlying residual soil was loose to medium dense. The Moutere Gravel was consistently dense to very dense below a depth of approximately 1,300 m.

Table 1 below summarises the depth to 'Good Ground' as defined by NZS3604:1999.

Table 1: Soil strength characteristics

Scala penetrometer Test	Depth (mm) to 'Good Ground' as defined by NZS3604:1999.
SC2	1300
SC3	300
SC4	300

The Scala penetrometer logs (SC1-SC4) are attached.

Two samples from TP1 were taken and tested for dispersion in accordance with Emerson's procedure. The soil is classified under this test as class 3, with minor grade 2 slaking, and no dispersion. The samples had an average pH of 6.3. The slightly acidic chemistry is normal for soils derived from the Moutere Gravel Formation.

The soil on the hillside is classified as poorly structured in terms of Appendix 4.1D6 of AS/NZS 1547:2000 and falls into Category 5 (Poorly Drained – Refer Table 4.1.1). In our experience, this is typical for soils derived from the Moutere Gravel Formation.

Development Considerations

Recommendations and opinions in this report are based on data from four test pits, four Scala penetrometer tests and the walkover survey undertaken as part of this engagement. The nature and continuity of sub-surface conditions away from the original test locations are inferred and it must be appreciated that actual conditions may vary from the assumed model.

We have not been asked to assess or provide comment on any area of the proposed subdivision other than the suitability of the proposed building area for development, including domestic wastewater management.

We have undertaken a site investigation in accordance with established engineering practice and consider that a building site suitable for a single dwelling exists on the site as defined in the attached Figure 1. We consider that development of the site will not adversely affect stability of the lot provided the recommendations below are incorporated into the development.

Recommendations for Development

1. All dwellings and other buildings shall be founded entirely within the Recommended Building Area as shown on Figure 1.
2. All foundations on cut ground shall be in accordance with NZS3604:1999. Any foundations on filled ground shall be subject to specific engineering design, or shall penetrate the fill and be founded within the 'good ground'² comprising competent, *in situ* Moutere Gravel. If a building platform is cut on the site, 'Good ground' will be exposed over much of its area. However, it is vital that any filling on site be in accordance with recommendation 5 below.
3. Any building shall be set back at least 12 m from the top of the natural slope to the east of the proposed building area.
4. All new temporary or permanent cuts greater than 2.5 m high shall be specifically investigated by a Chartered Professional Engineer practising in geotechnical engineering. Any building shall be set back from the base of any unretained cut batter a minimum distance of the height of the batter. For cuts less than 2.5 m high, we recommend a batter face angle of 0.75H:1V.
5. Any new fill on the lot must be controlled engineered fill, sourced and placed in accordance with NZS 4431:1989 *Earthfill for Residential Development*. Placement of fill shall include appropriate stripping, benching and under drainage. Site sourced material is likely to be suitable for placement as engineered fill. We do not recommend any filling on the steep natural slope to the east of the proposed building area. All fill on the site may settle with time and any relatively brittle structures such as plaster finishes, rigid concrete slabs or paths may be damaged. This can be reduced with proper site preparation prior to construction.
6. Any retaining walls over 1,000 mm in height, including those incorporated into the building structure, shall be designed by a Chartered Professional Engineer practising in geotechnical engineering. All retaining walls shall be fully drained.
7. Prior to commencement of earthworks, a subsoil cut off drain in accordance with Figure 2 shall be installed in the position shown on Figure 1, and arranged to drain from both ends of the pipe to a piped outfall in the gully to the south of the building area and/or to the creek at the base of the slope.
8. The forming of a building platform may yield a substantial amount of excess material. Any excess fill not required to form the building platform must be managed in a manner that will not lead to slope instability on site. This may require disposal off site.
9. Stormwater from any roof, impermeable areas (e.g. driveways, paving etc.), retaining wall drains, subsoil drains or water storage areas (e.g. swimming pools) should be collected and piped away to discharge into the axis of the stream course or other natural gully downstream of the house site. Appropriate anti-scour measures shall be put in place at the

² As defined in NZS 3604:1999.

- discharge point, should they be considered necessary by a Chartered Professional Engineer practising in geotechnical engineering.
10. Vegetation provides a degree of lateral support to surface soils. We recommend that where possible, planting of sloping ground should be encouraged to enhance stability.
 11. On-site wastewater disposal shall be in accordance with the recommendations set out below. In addition, wastewater disposal shall not be carried out where the discharge could result in saturation of fill material placed on the lot.
 12. This building site assessment relates to the general suitability of the site; it does not remove the need for specific site investigation, design and inspection as required by the New Zealand Building Code, NZS 3604:1999 and NZS 4431:1989.

On Site Disposal of Wastewater

The proposed subdivision is not currently connected to Tasman District Council's wastewater reticulation. Wastewater will therefore have to be disposed of on site. Our investigations have shown that the soils underlying the site are of low permeability and we do not recommend disposal via conventional septic tank and soakage trenches.

We believe that on-site disposal of wastewater from one dwelling is possible on this site provided appropriate measures are put in place to mitigate the restrictions imposed on disposal by low permeability soils present on the property.

Waste Water Disposal System Design

Assessment of Daily Throughput

Daily throughput should be calculated based on the specific dwelling proposed for the site. Guidance is available from either AS/NZS 1547:2000 or Auckland Regional Council's TP58. A recommended minimum design throughput is 1080 litres per day. If a larger house is constructed, this throughput can increase by almost 100%.

Generic System Recommendation

System

We recommend that as a minimum, a secondary treatment system such as an aerated wastewater treatment system be installed on this site, with a covered (shallow sub-surface) irrigation system for disposal of the treated wastewater. These systems are efficient in a low rainfall and high evapotranspiration area, such as exists on the site. They are also well suited to Category 5 soils with very low permeability, and for sloping sites.

Oasis Clearwater 2000 is a suitable system, available locally. Alternative (non-aerated) secondary treatment systems include those marketed by Innoflow Technologies and Biolytix. These systems can offer the advantage of lower running costs than aerated systems.

Disposal Area Required

AS/NZS 1547:2000 recommends a maximum Design Irrigation Rate of 20 mm per week for Category 5 soils. This is the equivalent to 20 litres of water over each square metre of land within the disposal area per week.

The disposal area should be sized in accordance with the daily throughput assessed for the dwelling, such that the minimum dosage rate of 20 mm per week is not exceeded.

To comply with this minimum standard, the disposal area for 1080 litres per day shall be no smaller than:

Maximum Recommended Loading	7,560 litres per week
Design Irrigation Rate	$\frac{20 \text{ mm per week}}{}$
Disposal Area Required	380 m ²

In addition, Council requires all on-site wastewater disposal systems to have a 100% reserve disposal area, to be used in the event of failure of the first disposal field. The total area to be made available for disposal should therefore be $380 \times 2 = 760 \text{ m}^2$. It may be possible to achieve a relaxation of this requirement at Consent stage on the premise that Council's reticulation is likely to be extended to service this area shortly, and the connection could be made at that time, thus removing the need to have an on-site treatment and disposal system.

The disposal area shall be sited upslope of the 8 m setback line near shown on Figure 1.

Disposal System Design

The covered irrigation (shallow sub surface) disposal system should consist of a network of manifold lines and individually controlled dripper lines. The manifold lines should generally be arranged to run downslope, with the dripper lines running across the slope. The dripper lines should be secured in place and covered in a minimum of 100 mm depth of bark mulch or similar, and the area planted with appropriate species. No discharge of treated effluent shall be permitted to occur on filled ground.

The system specified should discharge the treated wastewater using a dosing process, where a timer operates a pump to feed the disposal network at intervals.

The system should be designed to keep the Design Irrigation Rate below 20 mm per week as recommended in AS/NZS 1547.

Applicability

This report has been prepared solely for the benefit of Dennis Tuffnell as our client with respect to the specific brief given to us. Data or opinions contained in it may not be used in other contexts or for any other purpose without our preview and agreement.

During excavation and construction of earthworks, the site should be examined by an engineer or engineering geologist competent to judge whether the subsoils are compatible with the inferred conditions on which this report is based. We would be pleased to provide this service to you and believe the project will benefit from such continuity. However, it is important that we be contacted if there is any variation in encountered subsoil conditions from those described in the report.

Please refer any further enquiries or correspondence to Andrew Palmer.

Yours sincerely



Andrew Palmer
Principal

Attachments: Test pit logs
Scala penetrometer logs
Figure 1 – Investigations location plan
Figure 2 – Cut off subsoil drain detail



1) Stream Crossing Investigation

prepared for

Bacon Planning Group on behalf of Christine Tuffnell
42 Hart Road, Richmond

by
Tony Hewitt

Information contained within this report should not be used without the prior consent of the client

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4. Catchment Hydrology

The stream is ephemeral, that is, it only flows after significant rain. However, during this last winter flows have been more sustained than usual following a very wet July/August period. On 29 August 2008 the site was first visited when the estimated stream flow was 10 l/sec. On a subsequent visit 5 September the flow was an estimated 20 l/sec. Given the ephemeral nature of the stream, there are normally no continuous surface base flows, and no low flow regime. There are likely to be permanent flows in the reach above Hill Street (unconfirmed), but these flows are either intercepted by fractured geology where streams pass over fault zones, or largely captured by the upstream ponds. Below the site flows largely disappear into the alluvial gravels underlying the lower reaches of the stream. However, during heavy rains quite significant flooding can occur due to the high yielding upper catchment. The natural flood channel through the site is incised to the capacity of a moderate fresh, but then spreads into a wider berm area to accommodate larger floods. There was evidence of recent flooding to this outer berm at the time of my site visit. , particularly below Paton Road is inadequate for such flooding, and floods regularly overflow the channel during such events. The reason for the inadequate channels is likely to be the lack of regular channel forming floods, partly due to the detention effect of the ponds, but probably more to do with the infiltration into the gravels of much of those flows.

5. Catchment Flood Flows

There are no hydrological records available on the TDC archive from the stream. In these circumstances empirical methods have to be used to calculate flood flows. The most commonly used method is the Rational method, which calculates peak flows on the basis of catchment characteristics. Following is the calculated flood flow for the catchment under its projected land use following the Richmond South Development. The design storm AEP is 5%, or 1 in 20 year return period. The Rational Formula is:

$Q = CIA/360$, where Q is peak flow, C is a runoff coefficient based on land use and topography (dimensionless), I is design rainfall intensity for desired return period storm (mm/hr), A is catchment area (ha).

C:

Final estimated land use configuration: Pines 25%, housing (roofs) 20%, roading and sealed surfaces 10%, gardens and parks 25%, open pasture 20%. Hence C can be estimated from:

Pines 50% @ 0.2 = 0.10

Housing 10% @ 0.95 = 0.09

Roading 5% @ 0.9 = 0.05

Parks etc 25% @ 0.25 = 0.06

Pasture 20% @ 0.30 = 0.06

Total 0.36 = C

I:

I is calculated from the time of concentration for the catchment, (T_c , the time taken for all the catchment area to be contributing to the subject site) and the design rainfall duration. TDC design standards call for a 20-year ARI (average return interval) storm. Using the USSCS method for channel flow and adding overland flow time results in a T_c of 20 minutes. This is considered appropriate for this catchment. Using published rainfall intensity and duration data (HIRDS), a value for I of 60mm/hour is obtained. Using TDC Drawing 311 (Rainfall Intensity Curves for Richmond), a value of 74mm/hour is obtained. The more conservative 74mm/hour value is adopted, hence $I = 74$.

A:

Catchment area is 83ha =A



6. Peak Flood Calculation

Hence, $Q_{20} = 0.36 \times 74 \times 83/360 = 6.1$ cumecs. This agrees reasonably well with 'rule of thumb' estimate of 5cumecs/km² for 20-year ARI storm, i.e., 4.7cumecs for 0.83km² catchment. Using the HIRDS rainfall intensity of 60mm/hour, the comparison would be closer.

7. Crossing Design

It is understood that under the Richmond South Development Area Variation, a 10m wide reserve will be vested on both banks of the stream. It is also understood that an understanding has been reached with Engineering Department that a lesser capacity crossing design will be acceptable in the meantime and until TDC take control of the reserve and install their own structure. On this basis a culvert crossing is proposed to accommodate 'nuisance' sized floods (those occurring once or twice a year on average) with a secondary flow path to accommodate surplus flow to the 20-year level.

*how much less?
detail of MAF design*

A flood peak of 1 cumec is considered for this purpose to be an appropriate design flow. The catchment above the site is relatively steep, so floods of this magnitude and greater will have relatively short durations. Examination of hydrograph records from a comparable gauged catchment elsewhere in the district showed that duration of flow above 1 cumec ranges from 1.5 to 2.5 hours, which would be the expected duration per event the secondary flow path would be in operation.

Engineering Standards (7.5.3) encourage the use of open channel structures (bridges) but in these circumstances a culvert crossing is considered appropriate. According to the culvert standards a 0.9m diameter concrete culvert, socket upstream with 0.6m headwater would pass approximately 2.0 cumecs. A concrete 'splash' over the top of the culvert would provide a secondary flow path for flows above this level.

A cross section surveyed just upstream of the crossing alignment identifies an available waterway area of 23.6m² to the 10m contour in Figure 3. A recent flood mark was evident at 9.4m. A longitudinal survey gave an average gradient through the reach of 0.032m/m. A 0.6m high waterfall currently exists 5m inside the Tuffnell boundary. This has resulted in a lowered bed level of 7.9m for the last 5m before it exits the property. This appears to be actively scouring in an upstream direction and would require stabilisation as part of the culvert construction. To facilitate this and allow for siting of the culvert it is proposed that the bed be regraded back from the boundary to a point 45m upstream to produce a finished grade of 0.039m/m. The 5m long culvert would be laid at an upstream invert level of 8.5m and downstream invert level 8.3m. This would provide 0.3m tail water fall below the culvert. This should be graded (not plunged) and armoured with rock to prevent scour and allow fish passage into the culvert. Once installed the culvert would be backfilled in an approved manner and concrete secondary flow path formed over the top to a finished level of approximately 10.0m. The concrete would fold over the front face of the culvert in the form of an apron, and be keyed into rock protection placed in the downstream channel to dampen flood flows and prevent scouring. It is estimated the secondary flood flow of 4 cumecs would require a waterway area of 4m² to pass (conservative average velocity 1m/sec). This floodway would span the width of the culvert and culvert approaches as necessary to accommodate the flood below the 10.5m contour. It is noted that stream crossing over the downstream neighbouring driveway is also a 0.9m diameter culvert constructed in a similar manner, but with a lateral secondary flow path.

