STAFF REPORT

TO: Environment and Planning Subcommittee

FROM: Mark Morris, Senior Consent Planner, Subdivision

REFERENCE: RM060967 and RM060968

SUBJECT: **N POLLLOCK and S MEIJER - REPORT EP07/04/05 -** Report prepared for 30 April 2007 Hearing.

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1. APPLICATION BRIEF

1.1 Proposal

The application is for a subdivision (RM060967) and landuse consent(RM060968).

The proposal is to subdivide Lot 1 DP 360528 (CT 246211) of 61.36 hectares into seven allotments with lots 1-6 being between 3700 and 5900 square metres in area and Lot 7 of 58.6 hectares in area. Lot 7 is to be held together between Lots 1-6 with each allotment being issued with an undivided one sixth share and one certificate of title to be issued.

The application also originally had a landuse consent to erect a "workers accommodation building", but that has now been withdrawn.

A landuse consent is sought to undertake earthworks associated with the forming of the access to the proposed Lots 1-6.

1.2 Location and Legal Description

The property is located on the Motueka River West Bank Road.

The legal description of the land is Lot 1 DP 350421 Certificate of Title 246211.

The applicant's do not own the property, but it is my understanding that they have a contract to purchase the property conditional on gaining consent to subdivide.

The owners of the property are Ruth and Lindsay Cattermole, who have given their written consent to the proposal and have put in a submission supporting the proposal.

1.3 Zoning and Consent Requirements

The land is zoned Rural 2 under the proposed Tasman Resource Management Plan. As there are no outstanding references on the Rural 2 zoning, it is considered operative pursuant to Section 19 of the Resource Management Act 1991. Therefore no assessment is required under the Transitional District Plan.

The subdivision is considered to be a Discretionary Activity under 16.3.9 of the Proposed Tasman Resource Management Plan in that the minimum lot size is less than 50 hectares required under the controlled activity rule 16.3.8.

The proposed land disturbance is a controlled activity under Rule 18.6.9 (Recontouring of Land).

2. CONSULTATION

2.1 Affected Parties Consent

The following affected parties consent were provided with the application:

- Crown Forestry Manager (Land Information New Zealand)
  (owner of the land that adjoins the western boundary)

- H E Hughes (Crown Forest License Holder)
  (leasee of the land that adjoins the western boundary)

- LJ and MR Cattermole
  (Present owner of the property)

- A and J Williams
  (Owner of the property adjoining the north eastern boundary)

3. NOTIFICATION AND SUBMISSIONS

The application was publicly notified on 20 January 2007.

28 submissions were received.

Tiakina Te Taiao

Did not oppose or support the application, but made the following points:

- Concerned about the proposed hydro development and the lack of information provided on this.

- Six dwellings will have an impact on waterways and impact on fish passage.

- Wanted an iwi monitor employed during construction to monitor the proposed earthworks.

Did not wish to be heard.

Wakatu Incorporation

Neutral on the application, but wanted more details on the taking of water for the proposed hydro scheme/.

Did not wish to be heard.

Shelley Lemaire

Supported the application, in particular the concept of communal living and living in harmony with nature.

Did not wish to be heard.

R and K Palzer

Supported the application.

Did not wish to be heard.

N J Alterio

Supported the application, in particular the opportunity for people to live together as a community, the low impact of the development and the regeneration of the native bush.

Did not wish to be heard.

AG Van Der Velden

Supported the application for the same reason as stated by N J Alerio.

Did not wish to be heard.

Irma Jager

Supported the application, stating that it was sustainable way of living in a community.
Did not wish to be heard.

R E Kiddle

Neutral on the application but concerned about subdivision of rural land and the possible negative effects on the rural character and productive values of the Tasman District.

The proposal is innovative and may well enhance the rural character by encouraging regeneration of the native forest. There may be negative effects from housing visual effects and lighting at night

N and F Holland

Supported the application, stating that they agreed with the ecological ethos behind the development. Provided a good example of low impact housing and encouraged the regeneration of native bush. Long term changes in titles may negate the communal aspect.

Wished to be heard.

M E Conroy

Supported the application and the proposal for members of a community gathering together to share in their goals of improving the environment and health of individuals. A community such as this can be a positive role model and motivation to build supportive and flourishing and democratic villages.

Did not wish to be heard.

R Leenheer

Supported the application, stating that it would be great benefit to the community in the valley.

Did not wish to be heard.

M Ruth and LJ Cattermole

Supported the application, stating that the property is only suitable for pine trees or communal living.

Supported the proposal to preserve the existing native bush.

Did wish to be heard.

E Clements

Supported the application, stating that it will maintain and regenerate the bush and re-encourage native birdlife and treat the land with conscious respect in relation to their buildings.

Did not wish to be heard.

W and C Manderson

Supported the application.

Did not wish to be heard.

G Galbraith

Supported the application, in particular the regeneration of the native bush, the low impact of the housing, the environmental management of power etc and the social, economic and environmental benefits of the project.

Did not wish to be heard.

B D Myer

Supported the application, stating that he was impressed by the applicant's intention and proposal.

Did not wish to be heard.

H W E Fletcher

Supported the application, in particular the concepts of community, eco-villages and sharing resources.

Did not wish to be heard.

Nelson Tasman Branch of the Royal Forest & Bird Protection Society Inc.

Supported the application in its entirety.

Wanting the following conditions imposed on the application:

- Covenants protecting the existing native bush.
- Covenant prohibiting cats and dogs on the property.
- That stormwater from hardstand areas not to be discharged directly into streams.
- That riparian vegetative strip be retain and enhanced along all waterways.

Did not wish to be heard.

P Searancke

Opposed to the application for the following reasons:

- The application is contrary to the TDC Policy statement and the Rural Futures objectives and outcomes.
- The rural 2 zoning will be degraded by this proposal.
- Will create urbanisation of the rural landscape.
- Will create cross boundary related complaints and degradation of the existing rural amenity and rural r3ecreational activities.
- Creation of small blocks such as this create issues such as transport effects, drainage, water, light pollution an noise.
- Potential for unrealistic expectations of quiet peaceful rural environment.

Wanted a rural emanations easement attached to the new titles to protect existing rural activities, including recreation activities in the surrounding areas.

Wished to be heard.

G Deplazes

Not opposed to this actual subdivision, but concerned about the precedent that would be set if this subdivision was approved in that it would reinforce the belief that any land can be subdivided.

There is a need for community consultation on the framework for rural subdivision in the District.

G D Tucker

Opposed to the application for the following reasons:

- Will bring a higher population density to an area that should only have one dwelling per 50 hectares.
- Opposed to the proposed workers accommodation in that it bring more people to the property.
- The subdivision with the associated wastewater and earthworks will affect water quality in the stream that water for my stock.
- The subdivision will add to the traffic on the Westbank road, which will make the road less safe.
- There are vague statements such as that that access will be in gravel and then in another section saying it will be sealed.
- Getting rid of the pinetrees will create adverse effects such as erosion during the removal of the trees.

Wished to be heard.

New Zealand Fire Service Commission

Specific submission relating to the provision of sufficient water supply for firefighting.

Wanted either sprinklers fitted in all the dwellings or fire fighting water supply in accordance with SNZ PAS 4509:2003.

Reserved the right to be heard.

Nelson Motorcycle Club.

Opposed to the application for the following reasons:

- The proposed development is in close proximity to an existing recreational facility ie the Hurley track which has been used by the club for over twenty years and is a nationally recognised training facility for the Nelson area.

- The proposed eco-village will not be able co-exist with the track which is in line of sight from the subdivision site.

- It is difficult to stop noise from the track spreading across the valley to the subdivision site.

Wanted double glazing for all dwellings and noise insulation in the walls.

Reference should be made on all titles that the surrounding area is used for rural recreational activities that create noise.

Wished to be heard.

D Jackson

Opposed to the application stating that it will set a precedent for further subdivision. The Rural 2 zoning should only allow for one house on this site and this should remain the case.

Did not wish to be heard.

G Bell and P Garlick

Supported the application stating that it was a suitable use for the land support the low impact proposal.

Did not wish to be heard.

E L Richards

Supported the proposal, in particular the clustering of the housing, the emphasis on ecological principles and the protection of native bush on the site.

Wished to be heard.

J Kelly and E Ianuzzi

Opposed to the application for the following reasons:

- There should not be an exception to the Rural 2 zoning for this proposal.
- If it is approved then all the valley's un productive land will become fair game for developers to create further clusters to look down on those people are penalised for owning productive land.
- The road and access works will create significant noise effects.
- Having a company controlling Lot 7 will cause problems and create uncertainty on responsibilities for management of the property.

Wished to be heard.

R Roborgh

Supported the application stating that the site was very suitable for this type of development. The proposal would be good fro the environment and good to taker the land out of production and allow regeneration of the native bush.

Did not wish to be heard.

4. STATUTORY CONSIDERATIONS

4.1 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.

If consent is granted, the proposed subdivision must be deemed to represent the sustainable use and development of the land resource. The critical issue of this consent is the potential effect of that subdivision and development on rural land values.

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

Section 104

Subject to Part II matters, Council is required to have regard to those matters set out in Section 104. Of relevance to the assessment of this application, Council must have regard to:

- Any actual and potential effects of allowing the subdivision to go ahead (Section 104 (1) (a));
- Any relevant objectives and policies in the Tasman Regional Policy Statement and the Proposed Tasman Resource Management Plan (Section 104 (1) (b));
- Any other relevant and reasonably necessary matter(s) to determine the consent (Section (1) (c)).

In respect of Section 104 (1) (b), the Proposed Tasman Resource Management Plan is now considered to be the relevant planning document, given the operative status of the Rural 2 zone rules.

Section 104B sets out the framework for granting or declining consent based on the status of an activity as set out in the relevant Plan.

4.2 Tasman Regional Policy Statement

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

Because the Proposed 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.

4.3 Tasman Resource Management Plan

The most relevant Objectives and Policies are contained in: Chapter 5 'Site Amenity Effects' and Chapter 7 'Rural Environment Effects'. These chapters articulate Council's key objectives: To protect rural land from inappropriate subdivision and development and to ensure character and amenity values are maintained or enhanced.

The most relevant Rules which follow from these imperatives are contained in Chapter 16.3 'Subdivision' and Chapter 17.5 'Rural 2 Zone'. The assessment criteria set out in 16.3A, which are provided to guide Council in evaluating the proposed subdivision.

Detail of the assessment of the proposed subdivision and landuse consents in terms of these matters is set out in the chapters following.

5. ASSESSMENT

In accordance with Section 104 of the Resource Management Act, Council must consider the actual and potential effects on the environment of allowing the activity, have regard for any relevant objectives, policies, rules, and consider any other matters relevant and reasonably necessary to determine the application.

5.1 Assessment of Environmental Effects

Pursuant to Section 104 (1) (a) of the Resource Management Act, the following effects assessment has been set out. For the sake of brevity, both subdivision and landuse matters will be considered within the following assessment.

Rural Land Productivity

According to the "Classification system for Productive land in the Tasman District" (1994) the soils of this site are classified as Class H.

Class H is the lowest productivity classes out of the eight Classes with A being the highest class and H being the lowest

According to the classification system Class H is essentially unproductive, with the main use being conservation and recreation, though it used for production forestry in many areas.

This means that the overall productive potential of this site is extremely limited with the steep topography, southerly exposure and erosion prone nature of the soils and apart from forestry the only likely sustainable land cover will be scrub and regenerating bush. This will not be changed by the subdivision.

Overall, it considered that the effects of the subdivision on productive values and productive potential will be no more than minor.

Servicing Effects

Wastewater

According to the application the proposed lots will be serviced for wastewater by composting toilets systems and grey water treated through reed beds. The applicant has provided an engineering report from Andrew Palmer of Terra Firma Engineering Ltd, which included an assessment of soil conditions for conventional on-site waste disposal. Mr Palmer has concluded that on–site waste water disposal should be able carried out on each the sites subject to specific design by engineer experienced in on-site waste water management.

Council's Consent Planner (Discharges), Michael Durand has provided an assessment of the composting toilet systems, the grey water treatment system and the on –site disposal report by Mr Palmer. This is included in Attachment 3

Power Servicing

It is the applicant's intention that each allotment will provide that own power supply such as solar power, water heating and possibly even hydro power. Because of this there is no condition requiring power supplies to be provide. Instead consent notices will be registered on the titles stating that is the land owners responsibility to provide power for the allotment. Easement for power will created along the right-of-way to allow for future power reticulation if the need arises in the future.

Telephone Servicing

Each of the allotments will be serviced for underground telephone connections.

Water Servicing

In terms of water supply the application has mention that use may be made of small stream s that run through the property to supplement roof tank supply, though no specific water take has been applied for.

A land owner has a right to take up to 5000 litres per day for domestic use and stock water. The applicant that stated that they will take no more than 25% of the minimum summer low flow, thereby ensuring that down stream properties still retain sufficient summer flows.

Traffic Effects

The proposed application will involve the creation of five additional rural –residential allotments, and the resulting traffic movements on to the Motueka West Bank Road.

Dugald Ley, Council's Development Control Engineer has provided and assessment of traffic effects and this is contained in Attachment 2

Stability

With the steep topography and erosion nature of the soils there is potential for stability problems on the site. The applicant has provided a Geotechnical assessment of the building sites and access by Andrew Palmer of Terra Firma Engineering Ltd.

Mr Palmers confirms that each of the building sites are suitable residential construction subject to specific engineering conditions that would need to be imposed as consent notices on the respective titles.

The applicant has proposed to have a reduced width right-of-way of 3.5 metres width plus passing bays instead of the required 4.5 metre width. This will reduce the amount of cuts required for the access will be reduced.

Land Disturbance Effects

These matters are covered by Donna Hill's report which is appended to this report as Attachment 1.

Archaeological Sites

The applicant has provided a letter from Steve Bagley of the Department of Conservation, who is the NZ Archaeological Association File keeper.

Mr Bagley confirms that there are no known archaeological sites on the property, though he states that an adze was found in this locality during the construction of the West Bank Road in 1970's.

Rural Character and Amenity Values

The rural character of the West bank area is predominantly characterised by a high level of natural amenity with an associated low density of built form and structures.

The creation of six rural residential allotments in this area has the potential to adversely affect the existing rural character of the area. This has been a concern of some of submitters.

The applicant proposes to locate all the rural residential allotments on the eastern side a spur that behind the rocky knoll that over overlooks the main southern eastern slope of the site.

It is considered that the proposed lot layout with the clustering of the rural- residential lots towards the rear of the site and retention of Lot 7 as an undeveloped lot will ensure that the adverse effects on rural character and amenity are no more than minor.

The applicant has proposed to covenant the regenerating bush that is growing in the gully areas, which should provide a good vegetative buffer between the building sites and the West Bank road and any other adjoining properties.

Cross Boundary Effects

The main potential cross boundary effect is that with forestry operations on the Crown Forestry Manager property that adjoins the property to the west. The Crown Forest Manager and the current leaseholder have both provided written consent to the proposal. This means that under Section 104 (3) (b) of the Resource Management Act, Council cannot have regard to the effects on either of these parties, as part of the assessment of the application.

The nearest building site is at least 250m from the adjoining forest land.

All of the building sites are at least 250m from neighbouring properties an considerably higher than the valley floor, so I do not see that there would be any cross-boundary problems with the existing productive activities in the valley. The regeneration of the site will provide effective vegetative buffer between the dwellings and other properties.

Some of the submitters are concerned about cross-boundary effects from existing rural recreational activities, in particular the existing motocross track on the Parish Hurley property across the other side of the Valley which has been used by the Nelson Motor Cycle Club for over 20 years. According to the Club's submission, their track is at about the altitude as the proposed building sites and is therefore is in the line of sight(and sound) of the proposed dwelling sites.

According to Council Explore Tasman data base the nearest building site to Hurley track is at least 2km from the track. According to Council's topographical database the bulk of the Hurley track is less than 80m above sea level whereas all of the buildings on this property are over 160m above sea level, so I do not accept that the house sites are at the same level as the Hurley track site.

Ecological Values

The applicant 's intend to covenant the existing native bush within the two gully areas with QEII covenant. They also intend to encourage regeneration of native bush within the rest of property. It is considered that this will enhance ecological values within site

5.2 Relevant Plans and Policy Statements

The subdivision and resulting landuse activities must be deemed to be consistent with relevant objectives and policies pursuant to Section 104 (1) (c) and (d) of the Act. The most relevant Plan is considered to be the proposed Tasman Resource Management Plan and will be used in this assessment. Because this was developed to be consistent with the Regional Policy Statement, the assessment would also be considered satisfy an assessment under the Policy Statement.

The following summarises the most relevant plan matters and provides brief assessment commentary:

Chapter 5 - Site Amenity Effects	Council must ensure that the rural character and amenity values of the site and surrounding environment are protected, and any actual or potential effects of the proposed subdivision should be avoided remedied or mitigated, including cross boundary effects.
Objectives: 5.1, 5.2, and 5.3 *Policies: 5.1.1, 5.1.3A, 5.1.9, 5.2.1, 5.2.7, 5.2.8, 5.3.2, 5.3.3, 5.3.5*	As detailed in the assessment of effects (Chapter 5.1), there is potential for the activity to have an effect on rural character and amenity values. An additional six rural residential allotments would be created in a rural landscape which has the potential to affect the rural character and amenity of the area.
Chapter 7 – Rural Environment Effects	The productive potential of land resources must be protected, and used efficiently. Rural character and amenity values must be maintained or enhanced
Objectives: 7.1, 7.2, 7.3 *Policies: 7.1.1, 7.1.2, 7.1.2A, 7.1.3, 7.2.1, 7.2.2, 7.2.4, 7.3.1, 7.3.3, 7.3.7, 7.3.8.*	The actual adverse effects on productive values is not considered to be significant because of the very low productive values of the soils on the site. Rural amenity values may be affected by the additional residential activity in the area. These matters are discussed in more detail in the assessment of effects (Chapter 5.1).
Chapter 10 – Significant Natural Values and Cultural Heritage *Objectives 10.1* *Policies 10.1.3, 10.1.5.*	Archaeological sites of significance must be protected, including any sites of significance to Maori. Conditions can be imposed to ensure protection of archaeological sites should they be uncovered during construction.
Chapter 11 - Land Transport Effects	The actual and potential effects of the proposed subdivision on traffic safety must be avoided, remedied or mitigated.
Objectives 11.1, 11.2 *Policies 11.1.2B, 11.1.3, 11.1.4A.*	The proposed subdivision and additional dwellings will result in additional traffic on to West Bank Road. This matter is discussed in more detail in the assessment of effects (Chapter 5.1).
Chapter 16.2 – Transport	Permitted activity performance conditions that manage vehicle access, parking and road standards are contained in this rule.

Chapter 16.3 – Subdivision	Requires Discretionary Activity resource consent for Rural 2 Zone subdivision, namely the creation of allotments that will be less than 50 hectares.
Assessment Criteria: Rule 16.3A	Assessment criteria set out in Rule 16.3A provide guidance in the assessment of the application for determining appropriate conditions. Key matters such as servicing, amenity values and the effect of the proposal on key resources must be addressed when assessing any application for subdivision consent. Matters most relevant to this application have been covered in the assessment of effects of this report (Chapter 5.1).
Chapter 17.5 – Rural 2 Zone Rules	Any activity on the proposed lots is subject to permitted activity performance standards and conditions set out in Rule 17.5, Rural 2 Zone rules.
Chapter 36.1 – Discharges to Land	The effects of discharges from on-site domestic wastewater systems installed as part of any dwelling being constructed on the proposed allotments.

Chapter 7 *Rural Environment Effects* is concerned with the effects of land fragmentation on all productive land whether it be highly productive or not.

In Objective 7.1.0 it sets out its principle objective to:
" Avoid the loss of potential for all land of existing and potential productive value".

Policy 7.1.2 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 7.1.2A seeks to avoid, remedy or mitigate the *"cumulative effects on the soil resource and productive value of the land."*

It is acknowledged that with the very low soil productivity values of the site, the effect on productive values will not be significant.

Objective 7.3.0 states:

"Avoidance, remedying or mitigation of the adverse effects of a wide range of existing and potential future activities on rural character and amenity values."

The following policies are relevant to this application:

7.3.3 To provide for the maintenance and enhancement of local rural character including such attributes as openness, greenness, productive activity, absence of signs, and separation and style and scale of structures.

7.3.4 To exclude from rural areas, uses or activities (including rural residential) which would have adverse effects on rural activities, health or amenity values, where those effects cannot be avoided, remedies or mitigated.

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

It is acknowledged that policies and objectives seek to retain the existing rural character and amenity of the Rural 2 and that the 50 ha minimum lot size for subdivision is the primary way that plan seek to achieve that. However it is considered that this particular subdivision layout with the recommended conditions imposed will still be able to retain the existing rural character and amenity, even though the lot sizes are well below the 50 hectare level. It is likely that once the subdivision is established, that most travellers along the West Bank Road will be unaware of the six dwellings on the site. Even on the other side the valley, it is likely that only the Lot 1 dwelling will be visible.

Therefore it is considered that the proposed development is in accordance the policies and objectives of the proposed plan in subdivision will not adversely affect productive values and the rural character and amenity will still be able to be maintained.

5.3 Part II Matters

The proposed subdivision and associated landuse activities are considered to be consistent with the purpose and principles contained in Part II of the Resource Management Act.

Part II of the Act is concerned about "maintaining and enhancing amenity values" under Section 7 (c). It is considered that the proposed subdivision, subject to the recommended conditions, will maintain and enhance amenity values of the site.

Also the proposed covenant protection of the native bush in the gully areas will help enhance the natural ecosystems of the riparian areas of the site.

5.4 Other Matters

Precedence and Cumulative Effects

Precedence in itself is not an "effect" but the subsequent approval of this subdivision is likely to lead to lead to other similar applications from Rural 2 properties each wanting like treatment. This can lead to a cumulative effect that is very much a relevant adverse effect under Section 3 (d) of the Act.

In resource management terms, the cumulative effect of establishing a pattern of consent decisions based on other applicants wanting similar outcomes, can have adverse effects on significant resource management issues.

In the case of this application to subdivide, the key issue is the potential for a cumulative loss of rural character and amenity values associated with more dense residential development in the rural landscape.

The issue of "precedence" must be acknowledged in practical terms as giving rise to cumulative adverse effects.

- Applications for consent are lodged on the basis that consent to previous applications have been granted under like conditions.

- Council can expect pressure to act consistently in its application of Plan objectives, policies, rules and assessment criterion. That is, Council is expected to be consistent in its decision-making.

I acknowledge that that precedence is an issue with this application in it could lead further subdivision in the area which could contribute to a cumulative adverse effect which could be more than minor. The other concern is that the proposed Lot 7 could further subdivided to create more rural residential allotments.

The applicant I volunteering covenants on the titles preventing further subdivision of the site. This could be also included in consent notices on the title. This would mean that the long term protection of the rural amenity of the site would be achieved.

I accept that approval of this subdivision could lead to other similar applications also seeking approval. Those applications would have to show how they could retain the rural and amenity just as this application and think would be few properties that could provide the similar topographical layout, with native bush protection and at least 250m of vegetative buffering on all sides.

Permitted Baseline Test

Under Section 104 (2) of the Resource Management Act, a consent authority may use what is called the “permitted baseline test” to assess what are the actual and potential effects on the environment of allowing the activity.

Under this principle the proposal is compared with what could be done as permitted activity under the relevant Plan.

As there is no subdivision as a permitted activity under the Proposed Plan it is considered that the permitted baseline test is not relevant to the assessment of the subdivision proposal.

6. CONCLUSIONS

The subdivision proposal is a Discretionary Activity under the Proposed Tasman Resource Management Plan.

The property is zoned Rural 2 under the Proposed Tasman Resource Management Plan.

The Motueka West Bank area has very high scenic and rural and natural amenity values. It is considered that proposal with it specific lot layout and volunteer conditions, will not adversely affect these values.

It is considered that the effects of the subdivision on productive values are no more than minor.

It considered that the six additional allotments can be adequately serviced and the traffic effects can be mitigated.

It is considered that the policies and objectives of the Plan that seek to avoid the loss of productive land and retain rural character will not be compromised by this subdivision.

It is considered that there will positive effects of the subdivision in that a significant area of native bush will be protected under a QEII covenant and the bulk of the property will be managed to facilitate regeneration of the native forest cover. Overall it is considered that the amenity values of the area will be enhanced by the subdivision rather than being adversely affected.

7. RECOMMENDATION

That pursuant to Section 104B of the Resource Management Act 1991 the Tasman District Council **APPROVES** its consent to the application by Natalie Pollock and Stephan Meijer to subdivide Lot 1 DP 360528 CT 246211 into seven allotments (RM060967) and for a land use consent (RM060968) to carry out land disturbance construct building platforms and access

8. RECOMMENDED CONDITIONS

If the Committee decides to grant consent, I would recommend that the following conditions be imposed:

SUBDIVISION CONSENT

8.1 The subdivision be carried out in accordance with the Newton Survey Plan No: RC01 dated 10/06. .

8.2 Financial contributions are required on six allotments (Lots 1-6).

The following will apply:

Reserves and Community Services
Payment of a reserves and community services levy assessed at 5.5% of the total market value of a 2,500 square metre notional building site contained within each of Lots 1-6.

The valuation will be undertaken by Council's valuation provider within one calendar month of Council receiving a request for valuation from the Consent Holder. The request for valuation should be directed to the Consents Administration Officer at Council's Richmond office. The cost of the valuation will be paid by Council.

If payment of the financial contribution is not made within two years of the date of this consent and a revised valuation is requested as provided by Rule 16.5.5(d) of the Proposed Tasman Resource Management Plan, the cost of the revised valuation shall be paid by the Consent Holder.

Advice Note:

Council will not issue the Section 224(c) certificate 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 which are the amount to be paid and 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 six allotments in respect roading.

8.3 The right-of-way shall be formed to an all weather surface and to a 3.5m lane width together with shoulders and side drains and generally as shown on Plan N202 RC03. Any drainage pipes shall be directed to areas that will not create erosion or instability.

Passing bays shall be formed as generally shown on Plan N202 RC02 and to the requirements of the TRMP. The maximum grade of the right-of-way shall be 1 in 6.

8.4 The intersection with Motueka River West Bank Road shall be formed as per Diagram 1 of Schedule 16.2c and sealed at least 10m back from the road carriageway edge. Low shrubs and plants shall be trimmed back at each side of the intersection to improve sight distance onto the highway.

The access shall be more or less level for the first 5m back from the Motueka Valley West Bank Road edge of seal.

8.5 Engineering plans shall be submitted for the above and comply with the TDC Engineering Standards.

As builts of the access will be required at the completion of the works and approved by the Engineering Manager prior to the issue of a 224C certificate.

8.6 Live telephone connections shall be provided to Lots 1-6 and all wiring shall be underground to the standard required by the supply authority. Confirmation of the above from the supply authority and a copy of the supplier's Certificate of Compliance shall be provided to the Council.

8.7 A consent notice shall registered on each of respective titles for Lots 1-6 advising the following:

i) That no power servicing has been provided at the time of subdivision and it is the landowners responsibility to provide their own power supply.

ii) That if power servicing is to be provided from the reticulated supply line, then the supply shall be laid underground from the road reserve boundary to the allotment.

8.8 Each of the building sites shall be provided with 3.5m wide metalled access, with maximum gradient of 1 in 6 plus water tables and culverts where necessary.

8.10 Certification of the building sites for residential development on Lots 1 – 6 shall be provided by a Chartered Professional Engineer in accordance with TDC Engineering standards Section 11 Appendix B and certification that all engineering works have been completed in accordance with TDC Engineering Standards or to the satisfaction of the Council's Engineering Manager.

8.11 The existing native bush on the site shall be protected by a way of QE II covenant. The documentation and signing of the covenant shall be completed prior to the signing of the Sec 224 certificate.

8.12 The native bush regeneration plan shall be provided for the remainder of Lot 7 detailing the on going plan to allow the long term regeneration of native bush and removal of the pine trees. The plan shall be to the satisfaction of the Council's consent Manager and shall ensure that any adverse effects on the environment resulting from the removal of the pine trees are kept to a minimum.

8.13 Prior to the submission of a section 223 plan, the applicant provide a provide a scaled plan from registered surveyor showing all the regenerating bush areas on all the allotments that are not covered by the QEII covenants . These shall be set out as covenant area on the Section 223 title with the covenants protecting the regenerating native vegetation within these areas and compliance with the native bush regeration plan set out in condition 8.12.

8.14 Consent notices shall be registered on the proposed Lot 1-7 including the following:

a) The recommended building development conditions (1-9) as set out in the Terra Firma Engineering report by Andrew Palmer dated 12 November 2006.

b) A landscape plan a shall be provided from a suitably qualified landscape professional, acceptable to Council, for by Council's Consents Manager with the building consent for any dwelling on Lot 1 -6. The plan shall show how proposed landscaping will mitigate the visual effects of the dwelling and how the proposed dwelling will blend in with the surrounding natural environment. The landscaping shall be fully completed, within 18 months of the issuing of the building consent for the dwelling.

c) The keeping of domestic cats and dogs shall be prohibited.

d) The fire fighting water tanks installed under condition 8.18 of subdivision consent RM060967 shall be kept at full capacity at all times.

e) The exterior colours of the dwelling and any accessory building shall be finished in recessive colours, approved by Council's Consents Manager which blend in with the immediate environment. The landowner shall submit for approval the following details of the colours proposed to be used on the walls and roof of the building:

1. The material to be used (e.g. paint, colour steel);
2. The name and manufacturer of the product or paint;
3. The reflectance value of the colour;
4. The proposed finish (e.g. matt, low-gloss, gloss); and

5. 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.

f) Power servicing condition as per condition 8.7.

g) Prohibition of subdivision for Lots 1-7.

h) No residential buildings shall be allowed on Lot 7.

i) Each of lots 1-6 shall be provided with at least 23,000 litres of water storage in association with any dwelling.

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

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

Based on BS 5252:1976 (British Standard Framework for Colour Co-ordination for Building Purposes).

8.15 Easements for all services located outside the allotments that they serve. Easement shall be provided for power along the access route to each of the lots 1-6 to allow for future power servicing

8.16 All engineering works are to be in accordance with Tasman District Engineering Standards or to the satisfaction of the Tasman District Engineering Manager.

8.17 Amalgamation.

"That Lot 7 hereon (legal access) be held as to six one-sixth shares by the owners of Lots 1, 2, 3, 4, 5 and 6 hereon as tenants in common in the said shares and that individual certificates of title be issued in accordance therewith."

DLR reference to be advised.

8.18 The applicant shall provide at least 45,000 litres of dedicated fire fighting water supply within 90 metres of each dwelling site on Lots 1-6 in compliance with New Zealand Fire Service Code of Practice for fire fighting supply SNZ PAS 4509:2003.

8.19 Whilst there are no knows archaeological sites on the site, the subject property is near an archaeological site. If during any site disturbance works, any material is found that may have any archaeological significance, all work should stop immediately and the consent holder should contact Tiakina te Taiao, the Tasman District Council and the Historic Places Trust, who should be consulted so that the appropriate action pursuant to the Historic Places Act is undertaken.

LAND DISTURBANCE CONSENT RM060968

8.20 The conditions recommended in Donna Hills report (Attachment 1).

Mark Morris
Senior Consent Planner (Subdivisions)

ATTACHMENT 1

STAFF REPORT

TO: Mark Morris

FROM: Donna Hills

REFERENCE: RM060968

SUBJECT: N Pollock and S Meijer (Pangatotara Eco Village) - Consent to carry out Land Disturbance

THE PROPOSAL

The applicant has applied for land use consent to undertake earthworks to re-align and extend the internal site access road, and create building sites in association with the rural-residential/eco village development of the property.

SUBMISSIONS

A submission was received from Geoffrey Tucker regarding runoff from the road construction causing problems on his property in terms of sedimentation to streams.

Statutory Considerations

Section 9 of the Resource Management Act 1991 (RMA) requires that no person may use any land in a manner that contravenes a rule in a district plan, regional plan, proposed district plan or proposed regional plan unless expressly allowed by a resource consent.

The proposed Tasman Regional Management Plan (TRMP) was first notified on 25 May 1996. There are no outstanding references relevant to this application and the TRMP is now the dominant planning document with respect to this application.

Rules

The property is located in Land Disturbance Area 2 (LD2). Under the LD2 rules the activity is unable to comply with Rule 18.6.7 as a permitted activity or Rule 18.6.9 as a controlled activity due to the depth of earthworks. The proposal is therefore a discretionary activity under Rule 18.6.10.

A resource consent is required and may include conditions on the following matters over which the Council has reserved its discretion:

Matters (1) to (14) in Rule 18.6.10:

(1) Extent, timing, and duration of bare ground.

(2) The location, timing of construction, design, and density of earthworks including roads, tracks, or landings.

(3) Re-establishment of vegetation cover.

(4) The disposal and stabilisation of waste material or fill.

(5) Loss of or damage to soil.

(6) Damage to riparian vegetation or soil.

(7) Damage to animal or plant communities or habitats in water bodies or coastal water.

(8) Effects of the activity on river or stream flows.

(9) The potential for slope instability.

(10) The visual effects of the activity, including the effects and screening of the locality from excavations, heaps, dumps, spoil, materials, buildings and machinery.

(11) Potential damage to any cultural heritage site or area, including any archaeological site or site of significance to Maori.

(12) Damage to any natural habitat or feature.

(13) The duration of the consent (Section 123 of the Act) and the timing of reviews of conditions and purpose of reviews (Section 128).

(14) Financial contributions, bonds and covenants in respect of the performance of conditions, and administrative charges (Section 108).

Objectives and Policies

The following objectives and policies from the TRMP are considered to be generally relevant to this application for land disturbance:

Objective

12.1.0

The avoidance, remedying, or mitigation of adverse effects of land disturbance, including:

a) damage to soil;
b) acceleration of the loss of soil;
c) sediment contamination of water and deposition of debris into rivers, streams, lakes, wetlands, karst systems, and the coast;
d) damage to river beds, karst features, land, fisheries or wildlife habitats, or structures through deposition, erosion or inundation;
e) adverse visual effects;
f) damage or destruction of indigenous animal, plant, and trout and salmon habitats, including cave habitats, or of sites or areas of cultural heritage significance;
g) adverse effects on indigenous biodiversity or other intrinsic values of ecosystems.

Assessment of the Application and Environmental effects

In accordance with Section 104 of the Resource Management Act 1991 Council must consider the actual and potential effects on the environment of allowing the activity to occur, having regard to any relevant objectives, policies and rules, and consider any other matters relevant and reasonably necessary to determine the application.

Land disturbance for the access road and building sites

There is an existing access road from the Motueka River West Bank Road serving this property. This road is currently fairly steep (grade in excess of 1 in 4) and a major part of it will be re-aligned to provide suitable gradient access to the proposed new allotments. The works involves forming the road to 3.5 metres in width with passing bays at suitable intervals. As cuts for the road will exceed 0.5 metres a resource consent is required.

There is a likelihood of runoff during the construction period, particularly if there is heavy rain during this time. The report by Engineering Sustainable Solutions Ltd states that stormwater from the road will be controlled by cutoff drains, roadside drains and culverts. The gradient of the roadside drain will be kept as gentle as possible to limit flows along it, and haybales will be placed in open drains downslope of the earthworks as necessary during and after the earthworks to minimise the risk of sedimentation into watercourses downstream of the works. Existing vegetation (which is primarily pines, with some regenerating kanuka and natives) will be maintained as much as is practicable and re-vegetation will take place as necessary on completion of the works to both control erosion and provide visual screening of the road from the surrounding Motueka Valley area.

A building platform will be formed on each new allotment (six sites). Recommended building sites have been specified in Table 3 of the Geotechnical report by Terra Firma Engineering Ltd and conditions of consent will ensure compliance with the recommendations in that report. In particular conditions relate to:

- supervision by a Chartered Professional Engineer of all cuts over 0.5 metres;
- retaining of all cuts over 0.5 metres unless deemed unnecessary by a Chartered Professional Engineer;
- avoidance of scour and erosion;
- measures to control surface run-off;
- no unretained fill on building sites; and
- maintenance of existing vegetation to enhance slope stability and minimise surface erosion.

Geoffrey Tucker owns Lot 3 DP360528, which is directly below the subject property. Mr Tucker has expressed concern that material from the road construction will find its way into watercourses which run through his property affecting stock water.

Whilst this is a valid concern, it is the writer's opinion that runoff can be adequately controlled during the works by adequate cutoff drains and other such methods as necessary during the works, and by only working during fine weather periods. Once the road is constructed it should be surfaced with larger sized gravels which are more likely to interlock and stay in place during heavy rainfall events. Water runoff channels (cut offs, water tables) may also need to be lined with stone to prevent scour.

Furthermore, providing the mitigation measures stated in the engineering reports and conditions of consent are implemented erosion and runoff will be controlled sufficiently to ensure that the adverse effects from the earthworks will be no more than minor during and after the works.

Suggested Conditions:

Should the committee decide to grant consent to the proposed subdivision and associated land disturbance, then the following conditions are recommended for the land disturbance consent:

1. The earthworks shall be completed in accordance with the application submitted by Pangatotara Eco Village dated 1 November 2006, the accompanying geotechnical report regarding land disturbance by Terra Firma Engineering Ltd dated 12 November 2006, and the engineering report by Engineering Sustainable Solutions Ltd dated November 2006.. In particular this includes:

   a) land disturbance to re-align and extend an internal access road;
   b) land disturbance for six new building platforms.;
   c) control of erosion and runoff; and
   d) retention of existing vegetation and new plantings where necessary to stabilise the cut faces and to provide some visual screening from the surrounding Motueka Valley area.

2. The Consent Holder shall notify the Coordinator Compliance Monitoring at least 24 hours prior to commencing any earthworks on site.

3. The recommendations and conditions 1 to 9 in the report by Terra Firma Engineering Ltd dated 12/11/06 shall be strictly adhered to when the earthworks are carried out, unless otherwise instructed by a Chartered Professional Engineer due to unforeseen site conditions, circumstances or constraints.

4. All excavated material shall be end-hauled, compacted in layers not exceeding 1 metre and stabilised to prevent downhill movement into watercourses.

5. The Consent Holder shall take all practicable measures to limit the discharge of sediment with stormwater run-off to water or land where it may enter waters during and after the construction period. In particular, the earthworks should be carried out during fine weather periods when the likelihood of erosion and sedimentation will be least. All sedimentation mitigation or control measures shall be maintained by the Consent Holder for as long as there is a potential for sediment movement (resulting from earthworks) to occur and until the site is adequately reinstated.

   Advice Note:
   The use of debris fences, straw bales, cut-off drains, ponds or other such methods should be used to ensure that any run-off is limited. Water runoff channels (cut offs, water tables) should be lined with stone to prevent scour, where necessary.

6. The Consent Holder shall ensure that good size gravel material, such as quarried AP75, is used to surface the road to control downhill movement of material in stormwater runoff.

Advice Note:

Larger sized gravel is more likely to interlock and stay in place on steeper slopes.

7. All bare areas shall be re-vegetated (especially on the downslope side of the road) as soon as is practicable and no later than three months after the completion of the works to limit erosion and downhill movement of exposed soil material.

8. The Consent Holder shall ensure that the site is left in a neat and tidy condition following the completion of the works.

9. Council may, for the duration of this consent, review the conditions of the consent pursuant to Section 128 of the Resource Management Act 1991 to:

   (a) deal with any adverse effect on the environment that may arise from the exercise of the consent and which it is appropriate to deal with at a later stage; or

   (b) to require compliance with operative rules in the Tasman Resource Management Plan or its successor; or

   (c) when relevant national environmental standards have been made under Section 43 of the Resource Management Act 1991.

10. Pursuant to Section 125 of the Act this consent shall lapse five years after the date of this consent unless either the consent is given effect to, or the Council has granted an extension pursuant to Section 125(1)(b) of the Act. In addition, once the consent has been given effect to, all earthworks shall be completed within 2 years.

    Advice Note:
    The consent is given effect to once the earthworks have commenced.

Advice Notes

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

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 Tasman Resource Management Plan (TRMP); 2) be allowed by the Resource Management Act; or 3) be authorised by a separate resource consent.

3. Access by the Council's Officers or its Agents to the property is reserved pursuant to Section 332 of the Resource Management Act 1991.

4. Monitoring of this resource consent is required under Section 35 and 36 of the Resource Management Act 1991, and a deposit fee is payable at this time. Should monitoring costs exceed this initial fee, the Council will recover the additional amount from the resource consent holder. Monitoring costs are able to be minimised by consistently complying with the resource consent conditions.

5. Pursuant to Section 127 of the Resource Management Act 1991, the Consent Holder may apply to the Consent Authority for the change or cancellation of any condition of this consent.

ATTACHMENT 2:

STAFF REPORT

To: Environmental & Planning Subcommittee

From: Dugald Ley

Reference: RM060697

Subject: PANGATOTARA ECO VILLAGE MOTUEKA RIVER WEST BANK ROAD

Introduction

This application is to subdivide a hilly rural property into 6 residential lots, together with a balance lot held in equal shares with the 6 residential lots. A ROW of some 1.3km in length will service the six lots and will be accessed off Motueka River West Bank Road.

Background

Motueka River West Bank Road is a collector road of some 5.9m sealed width and the practical speeds for this road vary between 50-70 km/hr. The road carries approximately 500 vehicles per day. Safe stopping sight distances for residential activities at intersections (as per Figure 16.2c) for 70km/hr require 85m of visibility and the applicant's plan shows that 150m is available.

A standard "T" intersection is envisaged as shown on plan N20 RC03 together with a side drain culvert of 450mm diameter concrete pipe and rip rap rock protection at the inlet and outlets.

The right-of-way will be formed to a grade complying with the Council Standards ie minimum 1 in 6, however the width is shown as a 3.5m lane together with passing bays at regular intervals instead of the required 4.5m width.

Discussion

The applicant's land is classed as generally rolling to steep and general cuts and fills are covered in the Earthworks report. Due to the length of the right-of-way and in order to reduce high cuts/fill slopes (and therefore erosion of both faces) it is considered that Council officers would concur that the reduced width together with passing bays were appropriate in these circumstances.

The typical cross-section as shown on Plan R202 RC03 and the passing bays shown on Plan R202 RC02 should form part of the consent conditions if the Committee were of a mind to grant consent.

Summary

It is considered in regard to access that the application will have minor effects and that these can be adequately mitigated by conditions as discussed above.

Recommendations

If the Committee were of a mind to grant consent, the following conditions should be a basis of the consent:

1. The right-of-way shall be formed to an all weather surface and to a 3.5m lane width together with shoulders and side drains and generally as shown on Plan N202 RC03. Any drainage pipes shall be directed to areas that will not create erosion or instability.

   Passing bays shall be formed as generally shown on Plan N202 RC02 and to the requirements of the TRMP. The maximum grade of the right-of-way shall be 1 in 6.

2. The intersection with Motueka River West Bank Road shall be formed as per Diagram 1 of Schedule 16.2c and sealed at least 10m back from the road carriageway edge. Low shrubs and plants shall be trimmed back at each side of the intersection to improve sight distance onto the highway.

   The access shall be more or less level for the first 5m back from the Motueka Valley West Bank Road edge of seal.

3. Engineering plans shall be submitted for the above and comply with the TDC Engineering Standards.

   As builts of the access will be required at the completion of the works and approved by the Engineering Manager prior to the issue of a 224C certificate.

4. Developer Contributions are payable as per the LTCCP for the new lots created in relation to Roading.

5. Live telephone connections shall be provided to Lots 1-6 and all wiring shall be underground to the standard required by the supply authority. Confirmation of the above from the supply authority and a copy of the supplier's Certificate of Compliance shall be provided to the Council.

6. A consent notice shall registered on each of respective titles for Lots 1-6 advising the following:

   i) That no power servicing has been provided at the time of subdivision and it is the landowners responsibility to provide their own power supply.

   ii) That if power servicing is to be provided from the reticulated supply line, then the supply shall be laid underground from the road reserve boundary to the allotment.

ATTACHMENT 3:

Environment & Planning Department

TO: Environment & Planning Subcommittee

FROM: Michael Durand, Consent Planner – Discharges

DATE: 18 April 2007

FILE NO: RM060967

RE: **PANGATOTARA ECOVILLAGE SUBDIVISION: DOMESTIC WASTEWATER TREATMENT AND DISPOSAL**

I have been asked by Mark Morris to provide a brief report regarding domestic wastewater treatment and disposal on the lots proposed under subdivision application RM060967.

Whilst there are specific design details that will be required at the Building Consent stage, it is my conclusion that there are no significant issues that should prevent the proper disposal of domestic wastewater on these lots, should consent be granted. There is no default requirement for resource consents (discharge permits) for wastewater disposal to be held by subsequent owners of the proposed lots, unless discharges proposed in the future do not meet the criteria of Permitted Activity (Discharges to Land) rules 36.1.4 (Discharge of domestic wastewater) and 36.1.6 (Discharge of greywater) of the TRMP.

There are no particular site restrictions which seriously limit the type or size of domestic wastewater treatment and disposal systems that might realistically be used on the proposed lots. Although the applicant has proposed the installation of composting toilets and greywater systems, in my judgement, any other recognised system for domestic wastewater treatment and disposal could reasonably be considered as an alternative.

Introduction

My name is Michael Durand and I have been Consent Planner (Discharges) at TDC since May 2006. I hold a BSc (Hons) in Geographical Sciences and a PhD in Environmental Science, and have nine years' professional experience as a scientist and researcher. In my position of Consent Planner my work is largely focussed on assessing wastewater system designs. Currently this involves the checking of every domestic wastewater system design submitted to Council through both the Resource Consent and Building Consent processes. I have attended numerous training courses and seminars on domestic wastewater treatment and disposal.

This Memorandum relates to on site wastewater treatment and disposal at the proposed subdivision of Lot 1 DP 360528, Motueka River West Bank. The purpose of this Memorandum is to:

(1) review the site characteristics with regard to suitability of the site for on-site effluent disposal;

(2) assess the applicants' proposed use of composting toilets on each of the proposed lots, and;

(3) assess the applicants' proposed use of reed beds for greywater treatment on each of the proposed lots.

Summary of supporting information provided by the applicants

Terra Firma report[1]: This engineering report discusses the surface and sub-surface characteristics of the site with regards to on-site wastewater disposal. The report's authors were briefed by the applicants of their interest in using composting toilets and greywater systems. The report discusses the suitability of the site for both types of systems, though a greater emphasis is placed upon disposal of secondary-treated all-waste water (i.e. highly treated, combined domestic wastewater).

Applicants' AEE Report[2]: The Applicants' AEE provides some supplementary information about their intentions to use composting toilets and reed bed greywater treatment and disposal systems on the proposed lots.

Lismore City Council Report[3]: This is a community education document that was produced by Lismore City Council (NSW, Australia) in 2005. It provides general guidance on the use of constructed reed beds for domestic wastewater disposal and includes details on construction considerations and maintenance.

Bioloo Composting Toilets Report (Mike Van Bennekom)[4]: The Bioloo report is a manufacturer's quote, specification sheet and supporting information sheet about the Bioloo composting toilet system.

These reports are referred to below as the "Terra Firma report"; "Applicants' AEE"; "Lismore report"; and the "Bioloo report", repectively.

Site suitability for on-site wastewater treatment and disposal

Described in the Terra Firma report[1] is a preliminary assessment of the site's suitability for on-site wastewater disposal. The main points of significance from this report can be summarised as:

- The existing allotment is moderately to steeply sloping with angles ranging from approximately 14° to 32°. Proposed Lots 1-6 are located on a ridge line trending NW-SE. Each of the proposed lots has an area of several hundred square metres with slope angles of less than 10°. Gulleys on either side of this ridge contain flowing or ephemeral streams.

- Three test pits were dug on the proposed Lots 1-6 and a preliminary assessment of soil conditions was undertaken at each. The depth of each pit was not indicated. The soil profile was described as "silty, sandy topsoil overlying a highly weathered succession of colluvial and residual sandy clay which in turn grades into generally low strength, completely to highly weathered, crystalline igneous rock [part of the Separation Point Granite suite]." The soil was assessed as having up to 30% clay content (though this was stressed as being a field estimate only). This sequence was similar in each of the three test pits. All of the test pits were dry.

- Drainage was assessed as being good, with a provisional assessment of the soil type as Category 2, according to the Australian / New Zealand Standards[5].

- Depth to groundwater cannot be quantified because the depth of the test pits was not indicated. However, given the relatively well-drained nature of the soil and the ridge-line location of the proposed lots, it is my assessment that groundwater depth would almost certainly lie in excess of 2 metres.

- Nothwithstanding the above, the report stresses that "any proposed on-site wastewater disposal area should be specifically reviewed by a geotechnical engineer prior to its construction."

The relatively rapidly draining soils and steep slopes lead the Terra Firma report authors to conclude that wastewater disposal via sub-surface trenches is unsuitable for the sites, except for the tops of the ridgelines. Whilst they have suggested that "it is likely that areas are available … for on-site disposal," it should be stressed that parts of each of the proposed lots are moderately or steeply sloping, and that this can restrict the types of wastewater disposal systems that may be suitable.

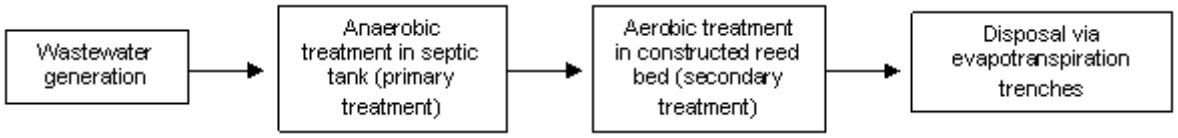
For example, disposal trenches or beds would not be considered appropriate on Category 2 soils sloping over approximately 15°. Notwithstanding this, achieving a suitable setback of > 20 m between wastewater disposal and the downslope creeks will largely limit wastewater disposal to the relatively gently-sloping ridge top areas.

Collectively, these factors mean that there are restrictions on the area of land available for wastewater disposal on each of the proposed lots. The extent to which this may constrain the location of the disposal depends on the type of wastewater disposal that is eventually proposed at the Building Consent stage, should consent for the proposed subdivision be granted. The details of the topography of each of the lots will also be a limiting factor.

However, in summary, it is my assessment that – given the size of the proposed lots – it is unlikely that there will be any serious restrictions placed upon wastewater disposal. It is highly probably that a suitable site is available on each of the proposed lots to accommodate almost any type of wastewater treatment and disposal system that may be proposed ultimately.

Greywater systems - reed beds and evapotranspiration trenches

The applicants are proposing to install composting toilets, and only greywater is to be treated and disposed of on-site. The applicants' AEE[2] report states their intention to treat and discharge of greywater via the following process:



Greywater can be stored and treated in 'septic tanks', although the value of such treatment is currently under debate[6]. Traditionally, septic tanks have been used for greywater treatment to provide time for the settling of solid materials and the floating of fats and grease. This settling time prevents the carry-over of solids and fats to any system of disposal or further treatment. Settlement time of 12 hrs or less is usually sufficient. Because of the general absence of solid waste and relatively low levels of nutrients in greywater, it tends to become anaerobic very quickly. Anaerobic conditions can bring about a strong smell by the emission of hydrogen sulphide and other pungent gases. Storage for less than 24 hrs is now recommended if greywater is to be discharged to the land surface, with a view to avoiding anaerobic conditions. In the case of discharge to a reed bed, it is not clear in the literature, including the Lismore City Council[3] report provided by the applicants, whether or not anaerobic conditions in the primary tank are to be avoided. This should be given special consideration at the design stage and a system should be developed that avoids the unnecessary generation of odours.

There is no specific design of the proposed reed beds, but the applicants attached the Lismore report[3] describing the use of reed beds in domestic wastewater disposal. Reed beds are usually lined tanks or containers of 2 or more cubic metres capacity, in which course gravels are held and macrophytes, including reeds, are planted. The primary treatment tank feeds the reed bed with wastewater, which should have a residence time of >5 days before being discharged to a disposal system. Aerobic and anaerobic conditions are present within the bed, and a wide range of bacteria supported which effectively treat the wastewater. Suitable plants need to be established and maintained in the bed.

It is my recommendation that any reed bed installed at the site should be the lined type that do not discharge water through their base.

Reed bed systems are relatively uncommon in New Zealand and there are very few off-the-shelf type systems available. Usually reed beds require site-specific design and installation. However, if properly designed and managed, reed beds are recognised as producers of high quality wastewater.

The Terra Firma report[1] accurately points out that combined blackwater (toilet waste) and greywater (collectively termed all-waste water) is "generally easier to treat and dispose of than greywater," and that the pathogenic content of untreated greywater "should not be underestimated." These comments allude to difficulties at the system design stage, rather than to any on-going problems with the functioning and maintenance of greywater systems. Considering the applicants' intention to construct greywater systems that may have few moving parts and may use little or no electricity, it could be argued that a well designed system will be at least as reliable as any high-tech proprietary wastewater treatment and disposal system. With regard to the pathogenic content of greywater, comments in the Terra Firma report are more appropriate for systems where human contact is possible with untreated or partially-treated greywater. This may be more likely where, for example, greywater spray irrigation systems may be used. In the present case, the reed bed water surface itself may allow contact with pathogens, but proper design should allow any risk to be avoided.

As with the reed beds, there is no specific design for the proposed evapotranspiration (ETA/ETS) trenches provided with the application. According to the Australian / New Zealand Standards[5] (Table 4.2A2, Note 6), ETA beds are not normally to be used on soil categories 1-3. However, this comment refers to primary-treated all-wastewater or blackwater. Because greywater contains lower concentrations of pathogens, and in the present case this water is proposed to be treated to high standards in a reed bed, there is no reason why ETA/ETS beds should not be used. The Applicants' report correctly points out that the proposed system design (though generic at this stage) exceeds Council's permitted standards for greywater discharges (rule 36.1.6).

A size of a reed bed system for a hypothetical 3 bedroom dwelling at this site can be estimated as follows:

- Three bedrooms = 5 occupants = 350 litres wastewater per day (@ 70 litres per person)[5]
- Septic tank typical maximum capacity = 2500 litres = approximate size 1 m width × 1 m height × 2.5 m length
- Reed bed holding tank capacity for 5-day residence time (assuming 50% space for water, 50% for media) = 3500 litres = approximate size 1 m width × 1 m height × 3.5 m length
- Disposal beds size @ discharge rate of 15 litres per square metre per day[5] = 24 square metres or 2 beds of 1 m width × 12 m length

Total area of system = 30 square metres

Allowing for separation between tanks and beds, plus possible pumps and pumping chambers, an estimate of the total system area plus reserve disposal area is approximately 70 square metres.

Given a suitable design, therefore, there is no reason why the discharge of treated greywater to land should present any significant problems or drawbacks when compared to treated all-wastewater or treated blackwater.

Composting Toilets

The Bioloo report[4] is a manufacturer's quote, specification sheet and supporting information sheet about the Bioloo composting toilet system. This system conforms with the Australian / New Zealand Standard for dry composting toilets[7] and relevant aspects of the New Zealand Building Code. Information provided describes the 'small size' bioloo system, which is described as being suitable to cater for up to 6 people in temperate climates and up to 10 people intermittently during summer. The design therefore appears suitable for the intended purpose in dwellings on the proposed lots.

The Applicants' AEE[2] (p. 13) suggests that the Bioloo report appended to their application is an *example* of the proposed composting systems. In my opinion the Bioloo system *or similar* would be suitable for the intended purpose. However, should another composting system be proposed by the applicants or any subsequent lot owner(s), Council would have an expectation that any proposed system would be a branded model and should comply with the Australian / New Zealand Standard[7] and the Building Code.

Tasman Resource Management Plan

The TRMP allows the discharge of greywater to land as a permitted activity under rule 36.1.6, reproduced here. Comments on likely compliance with these criteria are given below.

(a) The volume of greywater discharged onto or into the ground is not more than 2 cubic metres per day.

(aa) Any discharge first commencing after 3 December 2005 is not in the Wastewater Management Area. V46 12/05

(b) There is no discharge or run-off of greywater into surface water.

(c) The disposal field is located not less than:

(i) 20 metres from any water body and the coastal marine area;
(ii) 20 metres from any bore for domestic or irrigation water supply;
(iii) 1.5 metres from any adjoining property.

(d) The discharge does not cause an offensive or objectionable odour discernible beyond the property boundary.

(e) There is no ponding or run-off of the effluent.

(f) The quality of the effluent being discharged does not exceed the following standards:

BOD_5 20 milligrams per litre;
Total suspended solids 30 milligrams per litre.

(g) Where there is public access, the disposal field must be clearly signposted “Recycled Water – Avoid Contact – Do Not Drink”, or similar.

(h) The plume height of spray irrigated effluent does not exceed 600 millimetres above the surface of the disposal field.

(i) The pipework and fittings are specifically constructed for the disposal of domestic wastewater.

(j) `A greywater chamber is installed to prevent blockages and breakdowns of the disposal system.

(k) `Contingency measures are in place to avoid discharges to water in the event of a system failure.

At this stage it is not possible to comment on all criteria of the rule, since specific designs for the wastewater systems have not been provided at this time. However, given the information contained in reports[1,2,3] provided with the application, it is my assessment that that criteria (a), (b), (c), (d), (e) and (f) are likely to be met, assuming the greywater systems are appropriately designed and maintained. Appropriate system design should also ensure that criteria (i), (j) and (k) are met. Criterion (aa) shall certainly be met and criterion (h) is not relevant.

In my assessment, therefore, any owner of the proposed lots should be able to discharge of greywater, as described in the application, as a permitted activity.

There is no discharge from a composting toilet and therefore the activity does not fall within the jurisdiction of Chapter 36 of the TRMP, nor Section 15 of the RMA.

References

[1] Terra Firma Engineering Ltd (12 November 2006); Geotechnical Assessment, Proposed Subdivision of Lot 1 DP360528, Motueka River West Bank

[2] Stephan Meijer and Natalie Pollack (1 November 2006). Assessment of Environmental Effects.

[3] Lismore City Council (May 2005). The Use of Reed Beds for the Treatment of Sewage and Wastewater from Domestic Households. NSW, Aus.

[4] Bioloo Composting Toilets (Mike Van Bennekom)(undated)

[5] AS/NZS 1547 (2000) Australian/New Zealand Standard: On-site domestic wastewater management. Standards New Zealand / Standards Australia.

[6] Andrew Dakers (EcoEng Ltd, Christchurch). Personal Communication.

[7] AS/NZS 1546.2 (2001) On-site domestic wastewater treatment units - Waterless composting toilets. Standards New Zealand / Standards Australia.