

STAFF REPORT

TO: Environment & Planning Subcommittee

FROM: Daryl Henehan, Consent Planner - Natural Resources

REFERENCE: RM090807 - Works in a watercourse

SUBJECT: **JOHN AND RIA WILMS - REPORT REP10-05-06** - Report prepared for 3 May 2010 hearing

1. INTRODUCTION

John and Ria Wilms have lodged a number of resource consent applications relating to a subdivision and associated wastewater and stormwater discharges, earthworks and works in a watercourse in the Rural 3 Zone.

The following report assesses application **RM090807**, relating to the works in a watercourse required to construct a dam to attenuate stormwater discharge from the subject property (as discussed in the report for a wetland immediately downstream of the dam. This report should be read in conjunction with other staff reports discussing the proposed subdivision.

Should consent be granted, the Consent Holder will, at that stage, be the applicant John and Ria Wilms, but it is envisaged that the resource consent will need to be transferred to the subsequent owners of the lots.

The site of the proposed subdivision has been described in detail in the report by Wayne Horner, to which the reader is directed for further information on general site matters.

This report recommends consent conditions for any consent granted, including conditions requiring a detailed plan for the design, construction and ongoing management of the wetland to be developed before works begin. Conditions are also recommended to limit the generation, transport and deposition of sediment associated with the earthworks.

1.1 Site Location and Description

The 8.43 hectare property is located in a Rural 3 Zone at 167 Dominion Road, Mahana, approximately 1.5 kilometres west of The Coastal Highway.

Two ridges pass through the site, one trending northeast to southwest, the other north to south. The site drains to three gullies, located to the sides of these ridges.

The dam and wetland will be constructed in an ephemeral stream located in the gully on the western boundary of the site.

The application site contains an irrigation dam on proposed Lot 4 and one bore.

The property was previously an orchard, but currently has no significant vegetation.

Soils on the site are Moutere Hills gravel, a soil described as poorly to moderately well sorted clay-bound gravel dominated by predominantly quartzofeldsparic sandstone clasts. Test logs undertaken by Tasman Consulting Engineers indicate varying depths of greyish black silty clay topsoil overlying well-weathered Moutere Hills gravel that has developed into a light to medium clay with moderate plasticity. At greater depths the degree of weathering decreases and the original weathered cobbles can still be identified. Moutere Hills gravel derived soil does not possess sufficient infiltration rates to allow for stormwater disposal via soakage.

1.2 Legal Description

Address of property: 159 and 167 Dominion Road, Mahana;
Legal description: Lot 1 DP 9848 and Lot 2 DP 9848
Certificate of title: NL5B/654 and NL5B/655
Valuation number: 1938061700 and 1938061800

2. TRMP RULES

Section 13 of the Resource Management Act lists restrictions on the use of the beds of rivers (including intermittent and modified streams) that include excavations and disturbance to the bed, disturbance or removal of any species in the bed, and the introduction of plant species, unless allowed by a rule in a relevant regional plan or a by a resource consent. When this consent was lodged on 26 November 2010, Part IV of the TRMP (Rivers and Lakes) was inactive and in the absence of relevant rules in the TRMP, the activity proposed by the applicant required resource consent and was deemed a Discretionary Activity. Part IV has since become active and the construction of the proposed dam is still deemed a Discretionary Activity, because the preliminary design does not meet the two Permitted Activity Rules listed below:

28.2.2.1 (c) (v) *minimum crest width of the dam is 3 metres.*

28.2.2.1 (e) *For any dam constructed after 27 February 2010 all parts of the dam, including the spillway and impounded water up to the maximum level, are set back at least:*

(i) *10 metres from road boundaries or indicative road boundaries*

3. CONSULTATION, APPROVALS AND SUBMISSIONS

3.1 Consultation

The application was fully notified.

3.2 Submissions

No submissions were received regarding the proposed works in a watercourse.

4. PRINCIPAL ISSUES

The principal issue associated with the application is whether the works in a watercourse associated with the proposed subdivision will result in any adverse environmental effects on watercourses and adjacent land.

5. STATUTORY PROVISIONS

The works in a watercourse proposed in this application is deemed a Discretionary Activity. The Council must consider the application pursuant to Sections 104 and 107 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 objectives and policies in 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)).

5.1 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.

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. The matters relevant to this application are:

- The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development.
- The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna

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(d) intrinsic values of ecosystems
- 7(f) maintenance and enhancement of the quality of the environment, and
- 7(g) any finite characteristics of natural and physical resources

Section 8 of the Act shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). Iwi have been informed of the consent applications via the weekly list sent to Iwi. 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. The critical issue of this consent is whether the proposal represents sustainable use of the rural land resource, whereby servicing and cumulative adverse effects are no more than minor.

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

5.2 Tasman Regional Policy Statement

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

The Tasman Resource Management Plan (TRMP) was developed to be consistent with the Regional Policy Statement, therefore it is considered that an assessment under the TRMP 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 27 and Chapter 8

These chapters articulate Council's key objectives. The most relevant Rules which follow from these imperatives are contained in Chapter 36. The following Policies and Objectives have been considered relevant for this proposal:

Objectives and Policies
<p>Relevant objectives and policies related to the construction of a dam</p> <p>Objective 27.1.2.2 Activities in, on, under, or over the beds of rivers and lakes are carried out in a way that avoids, remedies, or mitigates adverse effects on aquatic ecosystems, including in particular:</p> <p>(a) aquatic habitats of: (i) indigenous freshwater fish; (ii) birds and other wild life, including river bed nesting habitats; (iii) trout; (b) braided and lowland river ecosystems; (c) fish passage.</p> <p>Policy 27.1.3.2 To promote and encourage drainage maintenance and development activities on productive land that maintain or enhance the health of aquatic ecosystems while providing for efficient land drainage networks.</p> <p>Relevant objectives and policies related to wetlands</p> <p>Objective 8.2.2 Maintenance and enhancement of the natural character of the margins of lakes, rivers, wetland and the coast, and the protection of that character from adverse effects of the subdivision, use, development or maintenance of land or other resources, including effects on landform, vegetation, habitats, ecosystems and natural processes.</p> <p>Policy 8.2.3.3 To avoid, remedy or mitigate adverse effects of land management practices on the margins of water bodies, including wetlands.</p> <p>8.2.3.4 (proposed) To avoid, remedy or mitigate adverse effects of buildings or land disturbance on the natural character, landscape character and amenity values of the margins of lakes, rivers, wetlands or the coast.</p> <p>8.2.3.7 (proposed) To ensure that the subdivision, use or development of land is managed in a way that avoids where practicable, and otherwise remedies or mitigates any adverse effects, including cumulative effects, on the natural character, landscape character and amenity values of the coastal environment and the margins of lakes, rivers and wetlands.</p>

6. ASSESSMENT

Pursuant to Section 104(1)(a) of the Resource Management Act, the following effects assessment has been set out:

6.1 Actual and Potential Environmental Effects

6.1.1 Proposal Summary

The report by Tasman Consulting Engineers Ltd. provides details on the design of the stormwater disposal system. To attenuate the peak flows in the stormwater discharge from Lots 1, 2, 3 and 5, it is proposed to construct a detention pond on Lot 5, adjacent to Dominion Road and a wetland immediately downstream of the detention pond. Water will be discharged from the pond, to the wetland and then to a 600 mm culvert under Dominion Road to a field on 160 Dominion Road.

The proposed detention pond and wetland will be constructed in an ephemeral stream that drains a gully on the western boundary of the property. The catchment of this stream is largely forested.

The proposed detention pond will have a base area of approximately 175 m², the maximum depth of impounded water will be approximately 2.3 metres and the crest width of dam approximately 2.5 metres. Pond walls will be formed at a slope of not more than 1 vertical: 3 horizontal

A report by Tom Kroos Fish and Wildlife Services Ltd. for the applicant provides detail on how to construct the wetland so that it can have beneficial effects on biodiversity and habitat values. The Tasman Consulting Engineers' report has listed the significant recommendations as:

- Supplementing the flow into the pond from the ephemeral gully base drain in Catchment B (drains 195 Dominion Road)
- Create the pond with an irregular shape, a depth of less than one metre and flat margins at the wetland edges
- Provide an irregular shaped island to the wetland
- Avoid steep sides and high banks

The shape and layout of the detention pond and the internal shape of the pond base will be determined during final design and detailing. It is recommended that the applicant submit a plan of the detailed design of the wetland, a planting plan and a maintenance plan, to ensure weeds do not establish in the wetland, for approval prior to the commencement of works.

It should be acknowledged that the applicant seeks to improve the state of the environment through the restorative work.

Instream Values

The stream within which works will be undertaken is an ephemeral watercourse, with flow presumably ceasing over extended dry periods (it was dry during a site visit on 17 December 2009). At the property boundary the stream drains through a 600 mm culvert, under Dominion Road and drains across a field on 160 Dominion Road. Given the ephemeral nature of the stream, significant instream values are not likely to exist.

Erosion and Sedimentation

As stated above, the watercourse within which works will be undertaken is ephemeral, therefore works should occur during dry periods to minimise the potential for erosion and sedimentation. This will reduce the potential for sediment to be deposited downstream.

It is recommended that a condition be added requiring revegetation of bareground associated with the construction of the dam and wetland be completed within six months of the completion of works, or by the winter following the completion of works, whichever is sooner. This will reduce the potential for erosion and sedimentation to occur.

It is also recommended that the applicant be required to submit a detailed Earthworks Management Plan for approval prior to commencing work (see Condition 26 of RM090804 for details).

Visual Effects

Land disturbance work and resulting bare ground will be visible from Dominion Road. Revegetation will ensure this effect is minimised and only temporary in nature. Visual effects associated with the activity are discussed in more detail in the reports for consents (RM090798 and RM090800).

Noise

Noise must comply with the TRMP Rural 3 Zone Permitted Activity Rule 17.7.2.1.

6.1.2 Summary of Assessment of Effects

In summary, potential adverse effects on the environment, in terms the works in a watercourse required to construct a dam and a wetland, are considered to be minor and the proposal is generally consistent with the objectives and policies in the Tasman Resource Management Plan.

7. SUMMARY

7.1 Principal Issues

The principal issue in this application is whether the proposed construction of a dam and a wetland can be undertaken so that the effects on the environment will be no more than minor.

7.2 Statutory Provisions

The application is deemed a Discretionary Activity under the Section 13 of the Act at the time the application was lodged.

7.3 Overall Conclusion

Overall, it is considered that the actual adverse effects on the environment are less than minor and the proposal is generally consistent with the objectives and policies, and matters of discretion in the Tasman Resource Management Plan.

8. RECOMMENDATION

The recommendation to grant or decline these applications for the works in a watercourse associated with the construction of a dam and a wetland is dependent upon the Committee's decision whether or not to grant the subdivision consent.

Having considered the application in detail, having visited the site, and drawing on the experience of Council staff, it is the writer's view that the adverse environmental effects of the proposed activity will be less than minor, and there is no reason why resource consent for works in a watercourse should not be granted subject to the following recommended conditions.

9. RECOMMENDED CONDITIONS

Wetland Development and Management Plan

1. A suitably qualified person experienced in wetland design and management shall prepare a "Wetland Development and Management Plan" (WDMP) for the design, construction and management of the wetland. This plan shall be prepared in accordance with the conditions of this resource consent and shall contain, but not be limited to, the following:
 - (a) A complete design of the wetland including, but not limited to:
 - (i) specifications of the proposed stream channel;
 - (ii) a transverse cross-section of the wetland showing the typical variety of bank shape through the length of the wetland; and
 - (iii) a planting plan.
 - (b) a schedule describing the methods and frequency of plant and animal pest control within the wetland;
 - (c) timeframes for the implementation of the WDMP; and
 - (d) a written contract between the Consent Holder and a suitably qualified person or organisation who agrees to oversee the implementation of the WDMP and timeframes referred to in Condition 1(c).
2. A copy of the WDMP required by Condition 1 shall be submitted to the Council's Coordinator Compliance Monitoring for approval prior to exercising this consent. Any changes to this plan shall be in accordance with the conditions of this consent and submitted to the Council's Co-ordinator Compliance Monitoring prior to them taking effect.

Earthworks

3. The dam shall be designed and constructed in accordance with the NZSOLD Dam Safety Guidelines and the application submitted by Landmark Lile Ltd. and Newton Survey, dated 20 November 2009 and details contained in the report prepared by Tasman Consulting Engineers Ltd., dated 27 October 2009 (ref. 09193), submitted with resource consent application. Where there are any apparent conflicts or inconsistencies between the information provided and the conditions of this consent, the conditions shall prevail.
4. The dam shall be designed and its construction overseen by a Chartered Professional Engineer practicing in Geotechnical Engineering and specialising in the construction of dams.
5. The Consent Holder shall contact Council's Co-ordinator Compliance Monitoring at least 24 hours prior to commencing works for monitoring purposes.
6. The Consent Holder shall take all practical measures to limit the discharge of sediment with stormwater run-off to water or land where it may enter water during and after the earthworks.

Advice Note:

In particular, the key earthworks should be carried out during fine weather periods when the likelihood of erosion and sedimentation will be least.

7. The Consent Holder shall monitor weather patterns during the construction phase and works shall be discontinued and appropriate protection and mitigation measures put in place prior to forecast heavy rainfalls and where resulting floods reaching the site works.
8. An Earthworks Management Plan in accordance with Condition 26 of RM090804 shall be submitted to Council's Co-ordinator, Compliance Monitoring for approval prior to any works taking place.
9. All exposed areas associated with the works in a watercourse shall be revegetated as soon as is practicable and no later than six months after the completion of the works, or before the winter following the completion works, whichever is sooner, to limit erosion and downhill movement of exposed material.
10. The Consent Holder shall ensure that all excess construction material is removed from the site and stream beds and that the site is left in a neat and tidy condition following the completion of construction works.
11. 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. In the event that more than 20 litres of fuel or hydrocarbon is spilt the Consent Holder will inform Council's Co-ordinator Compliance Monitoring immediately.

Rock Protection Required

12. To ensure that there are no adverse effects of the dam on the watercourse below it, rock protection (or similar) shall be placed under the direction of the chartered professional engineer referred to in Condition 4 below the spillway and shall be maintained by the Consent Holder.

Culvert

13. The existing culvert below the proposed dam shall be assessed by the Chartered Professional Engineer referred to in Condition 4. If in the opinion of that engineer the culvert requires to be upgraded or otherwise modified then that shall be undertaken by the Consent Holder and the TDC is to be advised accordingly.
14. Prior to undertaking any on site works authorised by this consent the Consent Holder shall provide a copy of this consent and any other relevant consents to the contractor undertaking the works and the Chartered Professional Engineer referred to in Condition 4.
15. Pursuant to Section 128 of the Resource Management Act 1991, the Consent Authority may review the conditions of these consents by serving notice during the month of January each year each year, and for any of the following purposes:
 - (a) to deal with any adverse effect on the environment which may arise from the exercise of this consent, and which it is appropriate to deal with at a later stage;
 - (b) to require the Consent Holder to adopt the best practicable option to remove or reduce any adverse effect on the environment;
 - (c) to change the compliance standards imposed by conditions of this consent to standards that are consistent with any relevant Regional Plan, District Plan, National Environmental Standard, or Act of Parliament.
16. Pursuant to Section 125 of the Act this consent shall lapse ten years after the date of this consent unless the consent is either: a) given effect to; or b) the Council has granted an extension pursuant to Section 125(1)(b) of the Act.

Advice Note:

The consent is given effect to once the on-site excavation first commences.

ADVICE NOTES

1. Access by the Council or its officers or agents to the property is reserved pursuant to Section 332 of the Resource Management Act.

2. The Consent Holder's attention is drawn to permitted rule 36.2.4 which permits the discharge of sediment or debris to water. No consent to breach the conditions of this rule has been applied for and therefore the Consent Holder must meet the conditions of this consent during land disturbance activities or else a separate resource consent must be obtained.
3. 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 shall 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.
4. This resource consent only authorises the activities described above. Any matters or activities not referred to in these consents 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.
5. Monitoring of this resource consent may be 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 Consent Holder. Monitoring costs are able to be minimised by consistently complying with the resource consent conditions.
6. 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.

Daryl Henehan
Consent Planner - Natural Resources