

## Submitter Details

**Submitter No.** S5  
**Submitter Name** Diane Strugnell  
**Date received** 15/12/2023

**Notes**

**Number of uploaded docs** 1

## Submission Points

The following table lists all of the submission points made by this submitter. The details of each submission point can be edited by clicking the 'edit' link, editing the information and then clicking 'submit'.

If you can't find the provision by typing the number, try typing a word in the body of the provision. For example, typing 'polic' will bring up all provisions that have the word 'policy' in their name.

If you need to void (delete) a submission point, click the 'edit' link and change the 'Status' field to 'Void'. Once the 'submit' button has been clicked, the submission point will be removed from the table and any reports.

**Reporting Topic** **Submission Point** **Plan section** **Provision** **Support/Oppose** **Reasons** **Decision Requested** **Mapping** **Scope** **Scope recommendation**

No Data

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## Raw uploaded submission points

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Raw sub point	Plan section	Provision	Support/oppose	Decision sought	Reasons	Entered into Spoken	Upload directly
S5.1	3 Objectives	Objective O19: Biodiversity, aquatic ecosystem health and mahinga kai in fresh water bodies and the coastal marine area are safeguarded.	Amend	(c) restoration of aquatic ecosystem health and mahinga kai is encouraged <b>with appropriate support from central and regional government.</b>	Without clear support, both advisory and financial, encouragement needs something to make it happen. The Te Awarua-o-Porirua Whaitua committee were clear that there are greater benefits to "carrots rather than sticks"	No	<a href="#">upload...</a>
S5.2	6 Other methods	Method M36: Freshwater Action Plan programme.	Support	Retain as notified	It is important that the requirement is retained for Wellington Regional Council to develop Freshwater Action Plans that are informed by engagement with rural landowners as significant stakeholders. To date much of the plan has been developed through modelling rather than based on actual data so it is essential when	No	<a href="#">upload...</a>

developing Freshwater Action Plans that WRC's methods of assessment are appropriate, sound and accurate. Reliable data should come before action plans and the data collection needs to be at a much smaller scale than even parts of Freshwater Management Units. Ideally the data collection should be at a smaller subcatchment scale or, in the case of larger farms, at an individual farm scale.

S5.3	6 Other methods	Method M40: Fish passage action plan programme for Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua Whaitua.	Support	Retain as notified	Current information on fish passage within Te Awarua-o-Porirua whaitua, based on NIWA's Fish passage Assessment Tool, contains many inaccuracies, which need to be identified and recorded accurately before a programme of fish passage remediation will be fully successful.	No	<a href="#">upload...</a>
S5.4	6 Other methods	Method M41: Identifying and responding to degradation in freshwater bodies within Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua Whaitua.	Support	Amend to read Wellington Regional Council will identify degradation of freshwater bodies within Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua Whaitua <b>at a sub-catchment scale based on accurate data using recognised assessment tools</b> . This programme will, at least once every five years, publish information identifying degrading trends for waterbodies. Any such analysis may be part of a plan effectiveness or action plan review or part of any other process.	In order to address degradation of freshwater bodies it is important to work at a subcatchment level in order to a) have accurate data and sound methods of quantifying the degradation and b) implement actions that target the specific causes of degradation	No	<a href="#">upload...</a>
S5.5	6 Other methods	Method M44: Supporting the health of rural waterbodies.	Support	Retain as notified	It is essential that any programmes to be implemented support rural landowners in a variety of ways as identified. Whilst there maybe direct benefits to rural landowners associated with some of the actions	No	<a href="#">upload...</a>

specified within the Plan Change predominantly the benefits are to others, human and nonhuman - for example, those that use the receiving environment for mahinga kai and/or recreation and the various species that inhabit the freshwater and coastal environments. The costs associated with the actions, for example, retirement of land, fencing and planting are largely borne by the landowner. The provision of appropriate supports help to redress this imbalance.

S5.6	9 Te Awarua-o-Porirua Whaitua	Objective P.O2: Te Awarua-o-Porirua's groundwater, rivers, lakes and natural wetlands, and their margins are on a trajectory of measurable improvement towards wai ora.	Amend	Amend to better define what is meant by "a more natural level"	I agree that there have been unacceptably large loads of sediment entering the harbour associated with both human activity, such as developments and roading, and natural events such as flooding. However "a more natural level" needs either a different definition or some way of quantifying what this might be.	No	<a href="#">upload...</a>
S5.7	9 Te Awarua-o-Porirua Whaitua	Policy P.P20: Managing diffuse discharges of nutrients and Escherichia coli from farming activities.	Oppose	Delete or change the policy to reflect the current accurately measured attribute states and the complementary actions that will retain or improve these.	Across the FMUs within the rural land many of the attribute states are within naturally occurring limits and/or in the case of E.coli due to a variety of sources, not just pastoral farming. It is unclear a) how these attributes will be measured at an individual property level and then b) how woody vegetation on the highest erosion risk land will change these.	No	<a href="#">upload...</a>
S5.8	9 Te Awarua-o-Porirua Whaitua	Policy P.P21: Capping, minimising and reducing diffuse discharges of	Amend	(ii) the nitrogen discharge risk is minimised by the adoption of good management practices, <del>and by the phasing out of any</del>	The Natural Resources Plan provides a definition of good management practice which	No	<a href="#">upload...</a>

nitrogen from farming activities.

~~poor management practices, and~~

includes that it "evolves over time and results in continuous improvement as new information, technology and awareness of particular issues are developed and disseminated." The adoption of good management practices therefore provides for "poor management practices" (which are not defined by the NRP) to be "phased out" making this part of the statement unnecessary.

S5.9	9 Te Awarua-o-Porirua Whaitua	Policy P.P22: Achieving reductions in sediment discharges from farming activities on land with high risk of erosion.	Amend	Change wording Achieving reductions in sediment discharges from farming activities on land with high <b>sediment loss risk of erosion</b>	Addressing sediment loss from rural land is a key focus within the Plan Change and changing the wording clearly links to this. Erosion risk is usually associated in people's minds with landslides such as seen on the East Coast and parts of Wairarapa rather than the more subtle sediment loss from land in this whaitua.	No	<a href="#">upload...</a>
S5.10	9 Te Awarua-o-Porirua Whaitua	Policy P.P22: Achieving reductions in sediment discharges from farming activities on land with high risk of erosion.	Amend	Reduce discharges of sediment from farming activities on high and highest erosion risk land by: (a) identifying highest erosion risk land (pasture) and high erosion risk land (pasture) used for pastoral farming, and (b) requiring that farm environment plans prepared for farms with highest erosion risk land (pasture) and/or highest erosion risk land (pasture) include an erosion risk treatment plan, and (c) ensuring erosion risk treatment plans: (i) deliver <del>permanent woody vegetation cover on at least 50% of any highest erosion risk land (pasture) that is in pasture on a farm within 10 years, and</del> appropriate treatment for the highest erosion risk land (pasture) that is in pasture on the farm, and (ii) identify and respond to risks of sediment loss on high erosion risk land (pasture) associated with grazing livestock, earthworks or	1) The mapping needs to be accurate at a farm scale for identifying the areas where there are the highest and high risks of sediment loss 2) The methods chosen to address this sediment loss need to be much more suited to the individual farms and even to areas within a farm. From personal experience, there are areas where it has not been possible to successfully establish woody vegetation due to soil type, soil depth, exposed ridgelines etc. If these are the areas that are most at risk of sediment loss then alternate methods need to be available and supported, for example, sediment traps. 3) The effectiveness	No	<a href="#">upload...</a>

vegetation clearance, by using effective erosion control treatment by 30 June 2040, and (d) Wellington Regional Council providing support to landowners to implement erosion risk treatment plans.

in achieving a reduction in sediment loss should be linked to reaching attribute states rather than a specific time frame. The degradation of freshwater has happened over more than a century and the path to rectifying this should involve measurable outcomes in freshwater health, not a timeline to one treatment method that may, or may not, deliver.

S5.11	9 Te Awarua-o-Porirua Whaitua	Policy P.P24: Managing rural land use change.	Amend	Consider if there are "perverse outcomes" when managing rural land use change	Is subdivision into small blocks a land use change? If the constraints placed on farming become too onerous one option is to subdivide to smaller blocks. As noted in the Section 32 report, there is a tendency for stocking rates to be higher on smaller blocks so does this become a perverse outcome?	No	<a href="#">upload...</a>
S5.12	9 Te Awarua-o-Porirua Whaitua	Rule P.R26: Farming activities on 20 hectares or more of land – permitted activity.	Support	Retain as notified	Whilst the number of farms within the whaitua is small by New Zealand standards, they contribute to the diversity, landscape and amenity values of Porirua City and the greater Wellington area. It is therefore important that farming in this whaitua has continued support.	No	<a href="#">upload...</a>
S5.14	12 Schedules	B Freshwater Action Plan requirements.	Support	Retain as notified	It is essential that any plans in particular, <ul style="list-style-type: none"> <li>- support the inclusion of non-regulatory actions,</li> <li>- follow and promote best practice in planning and implementation,</li> <li>- include as determined in partnership with mana whenua, preparation at different scales (e.g. part Freshwater Management Units, whole Freshwater Management Units</li> </ul>	No	<a href="#">upload...</a>

or smaller subcatchments) at the scale most useful to implementing actions and meeting the needs of mana whenua and the affected community,  
 - ground-truth the state and trends of attributes, as appropriate, to identify and prioritise necessary actions and  
 - recognise the value and necessity of integrated management planning and delivery.

S5.15	12 Schedules	B3 Necessary actions.	Support	Retain as notified especially (ii) Providing planning, financial and logistical support for revegetation and best practice sediment management on private land.	For the objectives and policies of the Plan Change, including Freshwater Action Plans, to be successfully implemented it is essential that private land owners are given the necessary support including planning, financial and logistical support	No	<a href="#">upload...</a>
S5.15	12 Schedules	D Freshwater Action Plans in Te Awarua-o-Porirua Whaitua	Support	Retain as notified	Especially support 3. reflecting the direction and recommendations of Te Awarua-o-Porirua Whaitua Implementation Programme and associated Te Awarua-o-Porirua Whaitua Implementation Programme 2019: Ngāti Toa Rangatira Statement, and 4. Integrating other actions such as under the fish passage action plan Method M40, and 5. Delivering the following further action: (a) Undertake nitrogen source studies in Taupō, Pouewe and Takapū part Freshwater Management Units to establish fit for purpose information on the relative sources of nitrogen to freshwater,	No	<a href="#">upload...</a>

including from gorse, small-block (<20 hectare) land holding activities and discharges from on-site domestic wastewater treatment systems.

S5.16	12 Schedules	Schedule 36: Additional requirements for Farm Environment Plans in Whaitua Te Whanganui-a-Tara and Te Awarua-o-Porirua Whaitua.	Amend	<p>Management objectives</p> <p>In addition to the management objectives described in Part B of Schedule Z, the farm environment plan must demonstrate that <b>the appropriate and practicable erosion control treatment measures are</b> adopted to address the identified <b>sediment loss risks will result in the revegetation of highest erosion risk land (pasture), and treatment to address erosion risks on other land including high erosion risk land (pasture), with at least 50% of highest erosion risk land (pasture), being revegetated by 30 December 2033, and the remaining highest risk erosion land (pasture) being revegetated by 30 December 2040; unless this is not reasonably practicable, and a certifier certifies that alternative erosion control treatment over the balance of the property will result in the same a level of soil loss avoidance and that these are measurable at a farm-scale and consistent with achieving the target attribute states for the part FMU.</b></p>	<p>Table D1 sets out a variety of factors that mean that sediment loss will be greater or lesser both within a property and across properties but there does not appear to be the same level of variation in the method that has been chosen to address sediment loss.</p> <p>As identified in Table D1, under Sediment Transport Risk there are a number of specific risk factors. The focus on a single solution, that is, woody vegetation, takes no account of these different risk factors and the fact that they may be better addressed through other methods.</p> <p>There are significant issues to be considered when looking at how sediment loss might be managed including</p> <ul style="list-style-type: none"> <li>- the reliability of mapping</li> <li>- the practicalities of addressing the highest erosion risk land areas when these are not contiguous</li> <li>- the fact that any fencing off of high/highest erosion risk areas when trying to establish vegetation will also include land that is of a lesser risk</li> <li>- the fact that vegetation will not establish on some of the identified land</li> <li>- what are the outcomes wanted and will a "one rule solution" meet these or lead to perverse outcomes e.g. will fertiliser use increase to improve</li> </ul>
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productivity on remaining land leading potentially to increased nutrient levels instead.

S5.17 12 E Erosion Risk Amend  
Schedules Treatment Plan.

Amend to remove Section 1) ~~A programme to ensure that 50% of the total area of any highest erosion risk land (pasture) on the property is in permanent woody vegetation within 10 years of the farm environment plan being certified, where permanent woody vegetation: (a) can reasonably be expected to reach canopy cover of at least 60% per hectare within 10 years of being established, and (b) is not plantation forestry, and (c) subject to meeting (a) and (b) above, may include appropriate planted species or species that may naturally regenerate.~~ 2. A programme of mitigations to ensure that the management of sediment loss from **highest and** high erosion risk land (pasture) meets the following management goals: 3. A programme of mitigations to ensure that the management of sediment loss from **highest and** high erosion risk land (pasture) meets the following management goals: (a) Goal 1 – The effects of stock grazing on sediment loss are minimised by managing grazing density and stock types/weights (particularly during winter months) to reflect the increased risk on **highest and** high erosion risk land (pasture). (b) Goal 2 – The risk of sediment loss from critical source areas is minimised through identification of these areas, management of vegetation in and around these areas, stock grazing practices, and location and use of farm infrastructure. (c) Goal 3 – Land has appropriate soil conservation treatment to provide effective erosion control. (d) Goal 4 – The risk of sediment loss as a result of any earthworks permitted by the regional plan is minimised, including by compliance with Rules WH.R22/P.R20. (e) Goal 5 – The risk of sediment loss as

The same flexibility in solutions should be applied to highest erosion risk land as to high erosion risk land. The difference should be in a higher level of outcomes expected in order to meet the attribute states within the treatment measures implemented and/or the implementation of more measures in order to meet the expected outcomes.

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a result of any vegetation clearance is not increased from associated land surface disturbance, and appropriate vegetation is established on the area as soon as practicable following any vegetation clearance. 4. A description of how the benefits of erosion control treatments will be maintained over time including by: (a) Restricting stock access to ensure effective establishment and protection of the woody vegetation ~~required by 1 above~~ or **other** mitigations implemented in accordance with 2 above, and (b) Implementing an animal and/or plant pest management programme.

S5.18	13 Maps	Map 90: Highest and high erosion risk land (Pasture) – Te Awarua-o-Porirua.	Oppose	Delete the map	<p>The map appears to be based on slope maps without taking into account other sediment transport risk factors. These other factors, such as soil type, geology and climate, also have a bearing on the amount of sediment lost from the land. This may be less or more depending on the combination of these factors.</p> <p>The information provided in the map, using pixels each equal to 5m<sup>2</sup> does not lead to any meaningful relationship to actions that can be taken to address sediment loss on land considered highest erosion risk land.</p>	No	<a href="#">upload...</a>
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## **Submission to Plan Change 1 - Supporting document**

**Diane Strugnell**

### **Background information**

I farm a 267 hectare block of land within the Takapū Freshwater Management Unit of Te Awarua-o-Porirua. Some of the tributaries of the Pāuatahanui Stream start on the farm which is on some of the steeper land in the upper catchment. We purchased the farm in 1997 and have been working since that time to improve the farm in many ways, not just from a farming perspective – productivity and infrastructure - but also considering freshwater and biodiversity aspects.

From 2014-2019 I was a Committee member on Te Awarua-o-Porirua Whaitua Committee. During that time I liaised with rural landowners across the catchment areas, sharing information on the whaitua process between the Committee and the community. I fully believed in the value of the whaitua process and stand behind the recommendations made in the Te Awarua-o-Porirua Whaitua Implementation Programme (WIP).

I have been a participant in the large rural landowners group for Porirua and a rural voice on Porirua City Council's District Plan Reference Group in 2017-18. I am a committee member of the Pāuatahanui Residents Association which represents landowners and residents in the rural areas of Porirua City. In 2021 I initiated the Pāuatahanui Freshwater Catchment Community and since 2022 have been involved in Porirua City Council's freshwater monitoring programme.

I believe that my participation in all these activities demonstrates my commitment to the intent of Plan Change 1. However I have concerns regarding the changes in emphasis between the recommendations contained in the WIP and the direction the policies and rules have taken within the Plan Change as notified.

Within the WIP the recommendations referencing a regulatory approach, that is Recommendations 59 and 63, placed an emphasis on accurate farm-scale mapping and data to support the regulations. The Whaitua Committee, I believe, was firmly of the view that the preferred approach was a non-regulatory one with a focus on flexibility to achieve the desired outcomes, as demonstrated by WIP Recommendations 58, 60, 61 and 64. This approach would enable the policies and rules to be based on good data, identifying effective solutions and working on a scale that would be achievable within such a small farming community.

### **The Farm**

The farm sits on a ridgeline within the upper Te Awarua-o-Porirua catchment. The lower parts of the farm are at 100m above sea level, rising to 380 metres above sea level. The ridgelines, part of what was a peneplain extending out to Mana Island, are rocky and exposed to significant winds from all directions especially the prevailing north-westerly but also winds from the south and north.

Earlier last century, as in many parts of New Zealand, the farm was developed through mass clearance of vegetation with little regard for anything other than trying to maximise the grazing area. This is shown in the following image, an aerial photo taken in 1942 and accessed through Retrolens.

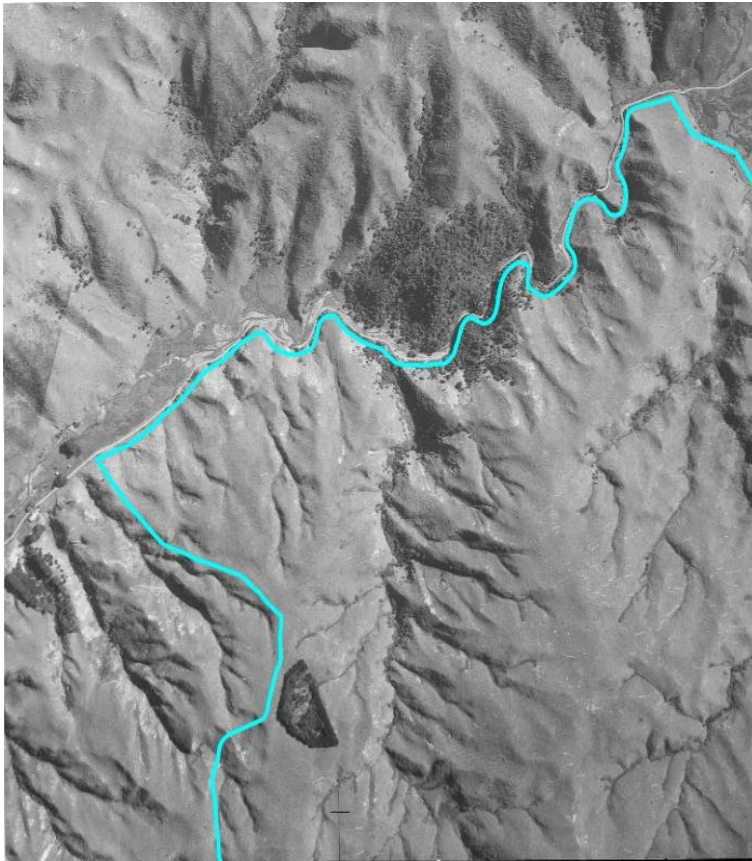


Image of part of the farm shown in a 1942 aerial photograph. The blue line follows the northern boundary along Moonshine Road.  
Source: Retrolens

When we purchased the farm in 1997, much of the property was still grazed intensively. Since then however we have been making farming decisions that have “softened our footprint” on the land, reducing sediment loss and increasing biodiversity.



Part of farm showing approximately the same area as the 1942 aerial photograph and illustrating the increased vegetation cover.  
Source: Greater Wellington GIS

## **Farm Environment Planning**

Since 2016 I have been working with Greater Wellington's Land Management Team (now the Environmental Restoration Team), including having a Farm Environment Plan since 2017.

The activities that have been undertaken to meet the goals within the Farm Environment Plan include

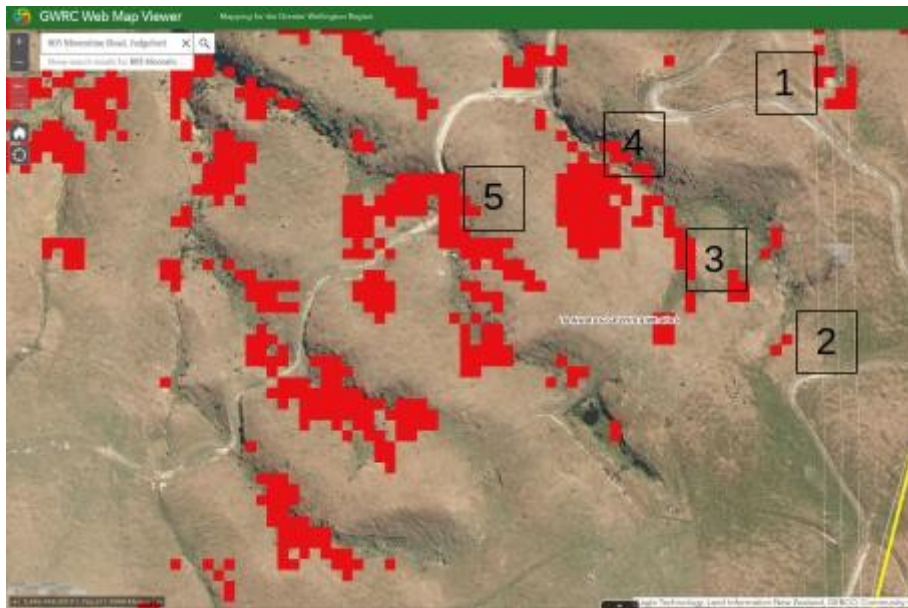
- Mapping of the farm using LUC and land slope maps to identify and prioritise actions including those to address freshwater health
- Improving the water reticulation to create a more reliable stock water supply, reducing the need for stock to access water from streams. This has included the installation of two 20,000 litre tanks to feed troughs across the farm, installing more troughs and increasing the capacity of the dam that supplies stock water
- Pole planting in gullies with stream bank erosion to help reduce run off and stabilise banks
- Fencing off two wetland areas where water leaves the property and planting these with native vegetation
- Identifying Critical source areas, that is areas on the farm where there is an increased risk of sediment loss, for example, near the cattle yards. Actions have included fencing these off with the addition of planting such as flax
- Installing sediment traps and debris dams to slow the rate of run off during high rainfall events, helping to reduce stream bank erosion
- Allowing revegetation of steeper slopes and wetlands through land retirement, fencing and pasture control
- Protecting areas of native vegetation and biodiversity through fencing to exclude stock

## **Plan Change 1 Mapping and Policies**

When looking at the Highest Erosion Risk Land maps specific to the farm, the pockets of square metres dotted across the farm these make little sense to me. The fact that they are not contiguous would mean that it is almost impossible to apply any meaningful actions to them. Their location takes no account taken of factors such as soil type, depth of soil or exposure to weather, either as a sediment transport risk factor or as presenting viable solutions. For example, whether it is a north or south facing slope makes a difference, as does whether it is solid rock, weathered rock or clay soil, whether it is a ridgeline or within an area that becomes a water course in high rainfall. These factors in turn affect whether actions such as planting (either pole planting or planting native vegetation) are likely to be successful with trees in some areas of the land failing to establish successfully.

As a landowner my familiarity with the land is essential to its good management and care. The flexibility to tailor solutions to the specific sources of sediment is important if meaningful outcomes are to be realised.

For example, attached is a section of Map 90, showing highest erosion risk land on the farm. I have numbered just a small number of these linked to photographs.



1. 15 sq m  
 Rocky and exposed, this is unlikely to be a source of significant sediment loss and is unlikely to support woody vegetation



2. Two 5 sq m sections, currently treated by placement of a small sediment retention dam. Fencing in this area is limited by the shallow soil depth and underlying rock.



3. Pole planting which has been difficult to establish due to the exposed nature of the site



4. Pole planting on a lower slope which has been more successful as it is a less exposed site. Note the presence of other vegetation i.e. gorse which also finds the site more favourable.



5. Establishment of a sediment trap at the base of an area identified as highest erosion risk land. This also addresses the fact that this is an identified critical source area



I believe that the actions I have been able to take have made a positive difference to reducing the amount of sediment transported off the farm and that much of their success has been due understanding the land and how the farm operates combined with the ability to be flexible and innovative in matching specific solutions to specific risks. This is what I understood Te Awarua-o-Porirua Whaitua Committee to be recommending in the WIP and which I believe should be reflected in the policies and rules of Plan Change 1.