

# **Horizons One Plan Hearing**

Infrastructure Energy and Waste

Management of Production Soils

Submitter non – expert evidence to support submission 318, which seeks that protection of Class 1 and 2 soils from urban spread and inappropriate development is recognized in the issues, objectives, policies and methods of the Proposed One Plan.

Judy Milne

## **Background**

I have lived on Class 2 soils in the Kairanga district to the southwest of Palmerston North for most of my life.

Four generations of my family have farmed there, the patterns of farming changing over the years – cattle, sheep, dairying, fat lamb and cattle, grass seed, wheat, maize, process peas and sweetcorn, potatoes and organic orcharding. Although the soils can be wet, with drainage and careful management these soils are capable of both high yields and a range of options.

My father had a great love and respect of the land. I remember quite clearly his dismay every time Palmerston North took another bite of good quality land for housing. His views were well known.

I married a town planning draughtsman (soon turned farmer) from South Auckland, who disagreed with the planners often when he saw good town planning principles overridden when money and influence intervened.

I have a B.A. in geography (1967) from Massey University.

Since 1997 I have been a submitter to the Palmerston North City Council and the Manawatu District Council concerning the use of Class 1 and 2 soils.

I have no legal or planning training, but see that what is happening to our versatile soils locally and throughout New Zealand is short sighted in the extreme.

***“A nation that destroys its soil destroys itself” – Franklin D. Roosevelt***

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## **Inappropriate Development**

In my submission I have stated that the permanent destruction of the region's soils through urban spread and inappropriate development is unsustainable. By "inappropriate" I mean, in the main, the subdivision of productive land into rural residential or lifestyle blocks.

This is inappropriate because:-

1. Much of the subdivision is on our better soils which have been in productive use.
2. For every lifestyle block created, the house site, driveways and sheds remove land from production permanently.
3. Fragmentation reduces farming options. I was told, at a meeting in 1997 to discuss the Manawatu District Council proposed Draft District Plan, that freeing up subdivision rules would increase farming options and production.

However, at a hearing ten years later, the senior planner's report regarding a proposed plan change to alter the zoning of an area of Class 2 soils near Feilding from Rural to Residential stated the opposite – "the current fragmentation of the area into a number of rural residential blocks already limits the range of productive options for the land". ("Submissions and Further Submissions on Proposed Changes 20 – 27 of the Manawatu District Plan", P16.)

4. A study by M.A.F. and the Western Bay of Plenty District Council between 1995 and 2000 has given cause for concern. The extrapolated results suggested that, in that time, 3517ha had been removed from primary production across the district, resulting in a loss of \$13.8 million income to the district.

Significant findings were a large increase in land being used purely for residential purposes, a large decrease in sheep and beef and dairy farming, and kiwifruit, in spite of a 250% increase in the performance of kiwifruit over the period of the study.

Although soil class was not a criterion, the study does show the effects of subdivision.

5. A survey by the Real Estate Institute in 2007 found that only 9% of respondents would consider a country property as an opportunity to use the land productively.

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## Reasons for protecting Class 1 and 2 Soils.

The expert evidences of Professor Neall and Dr. Palmer provide compelling reasons for the need to protect our Class 1 and 2 soils.

In addition:-

1. Versatile soils have a high pollution absorption capacity. Soils with lower versatility have limited ability to store nutrients and water and need higher inputs to compensate for inefficiencies, and there is greater risk that soluble nutrients and pesticides will pass beyond the reach of plant roots and adversely affect water quality. (Webb, P6)
2. The current emphasis on sustainability (RMA, and Agenda 21 on Sustainable Development from the United Nations Conference on Environmental Development, to which New Zealand is a party,) will increase the importance of better classes of soils because these provide higher sustainable yields with fewer inputs, and have lower adverse impacts on the environment. (Webb, P8)
3. Much of the increase in production caused by the “Green Revolution” between 1950 and 1990 is unsustainable, being heavily reliant on fossil fuels, fertilizers, and pesticides, and on underground water reserves. Again higher quality soils become more important.
4. Population Action International has reported that the minimum amount of arable land needed to feed one person without the use of synthetic fertilizers is 0.7ha. In 1960 there was 0.44ha per person. By 1990 this had dropped to 0.27ha, and by 2050 the prediction is that half the world’s population will be living below the required minimum. These figures can be compared with those of Lal and Pierce 1991, referred to in Webb P9.
5. In 2006, for the sixth time in the previous seven years, the world had grown less food than it consumed. The gaps had been closed by eating into reserves, which had shrunk by half since 1999. (Earth Policy Institute, 2006)
6. The Food and Beverage Task Force 2006 has looked at the challenges ahead and what is needed for sustained growth in New Zealand. One of the threats identified was the declining availability of land, with productive land being lost to lifestyle blocks and urban sprawl.
7. Environment 2010 identifies New Zealand’s highest priority environmental issues. Part of the goal under “Managing Land Resources” is to secure viable land uses and options and long term productivity by preventing irreversible land degradation. Bad subdivision is also considered a threat.
8. Environment New Zealand 2007 recognizes that urban expansion can lead to loss of land for food and fibre production (P214), and that “in recent years the spread of urban and rural lifestyle subdivision in some regions has put pressure on soils known as versatile soils.....While changing the use of these soils from large scale food production to human settlement may result in a loss of fertile productive land, it also changes the pressures on the immediate land environment”.

## Comments on Reports

### Addendum to Infrastructure, Energy, and Waste Planning Evidence and Recommendations Report, January 2009.

1. The report recognizes that the loss of Class 1 and 2 land is a potential resource management issue for consideration in the Proposed One Plan, and that in the current Regional Policy Statement issue L6 states that “The loss of this highly productive land, and the associated economic implications, is a significant issue for some parts of the Region“. However, the report states that because the issue is localized to the fringes of urban areas, it is not a significant region wide issue.

Four of the seven territorial authorities are affected by this. I do not consider this to be “localized”. Greater Wellington Regional Council has 18,600ha, less than one tenth of the Class 1 and 2 soils of Horizons, yet the problem around its small towns is recognized in its proposed Regional Policy Statement, and retaining Class 1 and 2 land as policy (Policy 59) is under consideration.

2. The use of percentage change figures in Table One, P9, makes the amount of Class 1 and 2 soils subdivided into lots smaller than 10ha, 1.6%, look unimportant. That equates to 3283ha over five years. Percentage change is used as a mitigating factor in consent applications because the figures look insignificant.
3. No account is taken of cumulative effect, of what is already lost, and projected loss. Palmerston North has already built over large areas of Class 1 and 2 soils.
4. The fact that all territorial authorities except for Ruapehu District have identified issues and provided objectives and policies (P10) is no reason for Horizons to opt out. I note that the Manawatu District in its submission seeks that other issues be identified for the region, including loss of soils other than through erosion, together with statements as to their priority, how these priorities are determined and how these issues are to be managed.

If protection is not included in the Proposed One Plan, one constraint will be removed from the territorial authorities.

5. David Murphy supports the position taken in the Proposed One Plan, that the loss of Class 1 and 2 soils due to urban expansion is not included, in Appendix D, “Planning Evidence on High Class Soils”. He is concerned that, as an integrated approach needs to be taken towards urban growth, one factor such as high quality soils would be given greater prominence over other factors.

The existing Palmerston North Urban Growth Strategy operated under the current Regional Policy Statement, in which the adverse effects of urban development on high class soils is included as an issue and as policy. Even then high class soils were not given priority over any other factor. Soil quality was one of 23 matrices used. The matrices represented urban form and design (10), infrastructure cost (2), ecological systems (3), and physical processes (8), of which high class soils was one. Each matrix was weighted, and the weighting given to soils was less than that applied to eight other categories.

The resulting top two urban growth fronts for Palmerston North thus produced were on high class soils with flooding potential. Both these areas have since been rejected by the new council. The third option, which depended on the Staces Road bridge going ahead, was also high class land, and floodable.

Unlike the previous council, the present council has indicated a strong desire to avoid development on high class soils, and the urban growth strategy is under review. Hopefully the physical and ecological processes will determine the potential growth areas, then urban form and design matrices applied to the remaining areas.

Councillors and staff change at territorial level, and in the case of Palmerston North, some attitudes have changed. They may change again. Therefore it is vital that the issue of high class soils is included in the Proposed One Plan as an over- arching protection against these changes.

***“.....because the city is surrounded by soils of exceptional quality more care must be taken in the future than has been in the past in the making of these decisions which have such wide ranging effects for the future well being of the region as a whole.”***

*- J.D. Cowie, pedologist, and W.L. Osborn, farm advisory officer, in “Soil Resources of the Manawatu and the Expansion of Palmerston North City”.*

Report Pursuant to S.42A Resource Management Act Concerning the Inclusion of Provisions in Part 1 POP Regarding Versatile Soils, prepared by J.W. Maassen

The numbers relate to the paragraphs in the report.

2. I reject the statement that suggests that submissions on this topic are “disparate”. All submissions are seeking protection for an irreplaceable resource.
3. There is widespread concern over this matter. There is often discussion at meetings and gatherings, especially of rural people. Even the Women’s Institute has discussed this as a matter of concern from branch level to the national A.G.M. I have over forty articles and letters from newspapers and farming papers, and notes from radio interviews collected over recent years. These relate to both loss of productive land generally, as well as versatile soils. The local and nationwide nature of these demonstrates a widespread concern.
7. Subdivision does affect productive capacity. An 18ha block in Kairanga, on Class2 soils, used to support thirty milking cows, eight replacement heifers, thirty to forty calves, a boar and four sows. Since subdivision there are now six houses and associated sheds and driveways, and a granny flat. The remaining land is farmed, but its productive capacity is seriously eroded. Half of the block owners collaboratively farm two steers, twenty five ewes and ten hoggets. On the other part there are about a dozen weaners. Worked out in stock units over-wintered, the land now carries less than half of what it did.

The Western Bay of Plenty study showed that 85% of properties of less than 0.5ha were removed from primary production, 59.3% ranging from 0.5ha and 3.9ha, and 22.9% of properties between the sizes of 4ha and 20ha.

11. The issue has not been “weighted appropriately having regard to a range of factors” in Palmerston North planning. Of the twenty three factors considered in deciding on new urban growth fronts, the weighting given to soils was less than that given to “Diversity/choice – Proximity to existing local schools, health, recreation and shopping facilities”, “an enhanced range of lifestyle choices”, “choice of existing multiple access routes that can be extended to connect directly to the site”, “proximity to the city center and /or other important activities or parts of the city”, “potential for connection to public transport, especially existing services that already pass by or through”, “sense of place “, and appropriately, “flooding risk” and “seismic hazard”. Many of those factors can be fixed, but not the permanent loss of a vital resource.

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### **Other Regional Councils**

1. Northland Regional Council’s Regional Policy Statement, Section 20 Soil Conservation and Land Management, identifies loss of highly productive and versatile soils through subdivision as an issue (20.2, P13), as policy – protection of highly productive and versatile soils, and methods (P16).

A review also discusses the land management outcomes and policy.

2. Auckland Regional Council recognizes that the Region must manage the soil resource to ensure versatility and productive potential is not further compromised by inappropriate land use and development, as an issue, (12.2.1, P1, Soil Conservation), as an objective (12.3.1), and as policy (12.4.1), and methods (12.4.2). The review states (P11) that “The ARC has a role to play under the RMA to protect the potential of the land to provide for future generations. The ARPS currently protects the versatile land.....Proposed change 6 also directs urban expansion and new countryside living away from areas of elite land”
3. Bay of Plenty Regional Council recognizes that high quality land may be adversely affected by urban expansion and subdivision, as an issue (6.2.1 and 6.2.2), as an objective (6.3.1(b)(i) and (iii), and in methods 6.3.1(c)(xviii), and in the anticipated environmental results.

Proposed Plan Change 2 includes 17A Growth Management in the Western Bay of Plenty. The issues are 17A.2.i . Both urban and rural subdivision ...have in some instances compromised versatile soils and rural land productivity.

4. Wellington Region’s Proposed Regional Policy Statement 3.11 Soils and minerals includes retaining productive soils for agricultural use as a major management challenge, and recognizes that highly productive (Class 1 and 2) land is under

threat from development, including residential development and roads. Under Objective 29, that soils maintain those desirable physical, chemical and biological characteristics that enable them to retain their ecosystem function and range of uses, is consideration for policy 59: Retaining highly productive agricultural land (Class 1 and 2 land).

5. Canterbury Regional Council has, in its Regional Policy Statement, a strong statement in Chapter 7 Soils and Land Use on the foreclosure of future land use options on versatile soils, as an issue, objective and policy (P87) and methods (P89).

However, a review has recommended that this issue be amended and incorporated in Chapter 12, Settlement and Built Environment. Of the four policy options under consideration, option 2 is recommended – “Provide policy in the CRPS to have regard to the value of versatile soil when considering how to control the use of land – this option involves identifying the management of versatile soil as an issue of significance for Canterbury. The provisions would identify that the resource has value for production and should be managed as such. These provisions would provide generic support for any provisions addressing versatile soil retained in district plans”.

6. Otago Regional Policy Statement aims to promote the retention of the primary productive capacity of Otago’s existing high class soils to meet the reasonably foreseeable needs of future generations, and the avoidance of uses that have the effect of removing those soils or their life-supporting capacity, and to remedy or mitigate the adverse effects on the high class soils where avoidance is not practicable. (Policy 5.5.2, P53). The retention of high class soils is considered to be a significant resource management issue of the region because of their limited nature, their vulnerability to loss and the importance in productive terms for future generations.
7. Hawkes Bay Regional Council has not included high class soils in the Regional Policy Statement, but I spoke to a planner there who told me that this had “caused much angst”.

I wonder if this will be the case in the Horizons region if the Proposed One Plan does not recognize the value of its high class soils.

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### **The RMA**

The overall purpose of the RMA is stated in Section 5 as being to “promote the sustainable management of natural and physical resources”.

Sustainable management is:- “...Managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic and cultural well being and for their health and safety while –

- (a) Sustaining the potential of natural and physical resources....to meet the reasonably foreseeable needs of future generations; and
- (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.”

Section 7 states that all persons exercising powers and functions under the Act must have particular regard to the ethic of stewardship, the efficient use and development of natural and physical resources, and any finite characteristics of natural and physical resources.

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### **Summary**

1. Class1 and 2 soils are a rare, vital and finite resource.
2. The RMA requires that our resources are managed in a sustainable manner.
3. There is nothing sustainable in the permanent destruction of a resource. Urban sprawl is destruction. There are no mitigating factors.
4. Overall, the spread of lifestyle blocks is not sustaining the potential of the resource.
5. Many other regional councils recognize the importance of these soils in their issues, objectives, policies and methods.
6. The Proposed One Plan needs to make provisions for these soils to give guidance and protection at territorial level.
7. The Proposed One Plan fails to meet the requirements of the RMA under sections 5 and 7.
8. Therefore, I seek that the protection of Class 1 and 2 soils is provided for in the issues, objectives, policies and methods of the Proposed One Plan

***“Unnecessary permanent conversions of superior quality agricultural lands to non agricultural uses may benefit the present generation, but these conversions will probably adversely affect all future generations. How selfish and short sighted can we be?”***

***- Fred Bently, Professor Emeritus, University of Alberta, in “New Zealand Soil News”***

## References

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Regional Policy Statements of:-

Northland Regional Council

Auckland Regional Council

Bay of Plenty Regional Council

Wellington Regional Council

Canterbury Regional Council

Otago Regional Council