

ONE PLAN SUBMISSION

The premise of my submission is that **“The protection of soils of high value for food production, identified in the current Horizons Regional Policy Statement Issue L6 as “highly productive land”, is missing from the One Plan, and this should be reinstated.”**

The need to protect our soils of high or potentially high value for food production can be addressed at 3 levels – international, national, & local. It is best expressed by the adage think globally, act locally.

At the international level there has never been a previous period (except perhaps in war time), when the price of food has so dramatically increased (and continues to increase) over such a short period of time. The world has only a finite area of soils where food can be produced for an ever increasing world population. This is now being exacerbated by the demand for biofuels, which is surreptitiously decreasing the land available for food production. The call is out “to double our food production”, but our good soils are limited in area; no more are being produced; and gradually they are being covered by urban expansion. Where will this food of the future come from? Any country endowed with premier soils, which allows urban development to encroach upon them is not thinking sustainably, nor of the future.

At the national level, New Zealand is a mountainous country. Fortyeight percent of the land area is steepland soils (i.e. with average slopes over 28⁰), (NZ DSIR 1980, p.30). Another 21% is hill country with slopes between 12⁰ and 28⁰. This leaves less than one third of our country (29%) with slopes less than 12⁰, which is what is classed as our “arable land”. This is the land that can be easily cultivated by machine, and is suitable for annual or perennial crops. Yet not all of this land has soils of high or potentially high value for food production. Furthermore, much of this land is where New Zealand’s towns and cities are sited, reducing the potential productivity even further. It was not until the passing of the Town & Country Planning Act in 1953, that legislative recognition was given to the need to conserve the good soils for primary production (NZ Soil Bureau 1968, p.120).

But all this changed with the introduction of the Resource Management Act in 1991. Now the emphasis is on “Sustainable management”. In Professor Fisher’s judicial analysis of its objectives he states “The application of the definition of ‘sustainable management’ thus means in practice that for the words “sustainable management”, wherever they appear in the legislation, there should be substituted the extended definition.

The extended definition is so important that it justifies a full quotation:

“In this Act, ‘sustainable management’ means managing the use, development, and protection of natural and physical resources in a way, or at rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –

“(a) Sustaining the potential of natural and physical resources (excluding minerals) **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 affects of activities on the environment.’ (Fisher 1991, p.11).

The bold type is mine.

When faced with alternative developments of urban centres we owe it to future generations to encourage growth on the soils of lesser value for food production rather than on our top class soils – the ones with high versatility that are endowed with properties that allow them to grow a wide range of foods, - the ones with few limitations to maximum productivity. These are referred to in the Land Use Capability Classification (which is part of the Land Inventory System) as being Class I and II land. It behoves us all to protect these soils from being covered in asphalt and concrete, where they will no longer be productive for future generations.

At the local level, we can think globally and act to protect one of our greatest natural assets, something which is increasingly being taken for granted. A myriad of the former Soil Bureau, DSIR publications provide assessments of the value of soils for food production throughout the region. This is not the place to provide the infinite detail, rather to make the point that the information is available (e.g. Cowie and Osborn 1977 for the Palmerston North environs). For the Horizons Regional Council area, Class I and II soils cover less than 6% of the total region (as derived from the NZLRI database, courtesy of H. Wilde, Landcare Research). For general information purposes these soils largely comprise the following soil series:

- Egmont
- Kiwitea
- Westmere
- Manawatu
- Karapoti
- Dannevirke
- Ohakune
- Kairanga
- Opiki &
- Te Arakura.

These are the soils with excellent physical properties with few or no limitations for plant growth, and with the potential to be some of New Zealand’s major food-producing soils for centuries to come, provided that they do not become inaccessible for this purpose.

Beware of spurious arguments about soils’ value for food production. Some detractors have said that these terms no longer apply because they pertained to the Town & Country Planning Act. However, no matter how legislation changes, the fundamental properties of these soils do not change. Neither do the words that express their versatility and food producing value become irrelevant because of legislative changes. These soils continue to be the basis on which future generations will derive their livelihoods. If we do not act for the future, the insidious process of urban growth will overwhelm the most valuable asset this country has, irretrievably condemning the best soils to an impermeable anthropogenic seal. To ignore this issue

will sacrifice the ability of future generations to meet their needs, let alone their wants, and lead to the accusation of intergenerational theft.

I urge the Regional Council to act decisively in ensuring we remain a community committed to sustainability and to mitigating these adverse effects of urban growth.

References

Cowie, J. D. and Osborn, W. L. 1977. Soil resources of the Manawatu and the expansion of Palmerston North city. Advisory Services Division, Ministry of Agriculture and Fisheries, Palmerston North. 50 pp.

Fisher, D.E., 1991. The Resource Management Legislation of 1991: A juridical analysis of its objectives. 30 pp.

New Zealand Department of Scientific & Industrial Research, 1980. Land Alone Endures – Land Use and the Role of Research. *Discussion Paper No. 3*. Wellington.

New Zealand Soil Bureau, 1968. Soils of New Zealand Part 1. *Soil Bureau Bulletin 26 (1)*. 142 pp.

Vincent E Neall, BSc(Hons.), PhD, FNZSSS
Professor in Earth Science
Chair, The School for the Environment, Massey University
Chair, New Zealand National Committee for the International Year of Planet Earth