

Proposed National Policy Statement on Urban Development Capacity

Submission form

We have included suggested questions below to help guide your submission. You do not have to answer these, and you are welcome to comment on other matters or concerns. Please give a rationale and supporting evidence for your responses.

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	Local government	<input checked="" type="checkbox"/>	
	Central government	<input type="checkbox"/>	
	Iwi	<input type="checkbox"/>	
	Other (please specify)	<input type="checkbox"/>	

*fields must be completed

Submission – Protection of Versatile Land from Urban Encroachment

08 July 2016

Attention: To Whom it may Concern

SUBMISSION – PROTECTION OF VERSATILE LAND FROM URBAN ENCROACHMENT

The Submitter

The Land Monitoring Forum (LMF) is a Regional Council Special Interest Group which was formed by Local Government New Zealand in 1999. The forum represents professional and technical experts from regional councils and unitary authorities throughout New Zealand in roles relating to land and soil science, research, monitoring and input into policy development.

The Application

This submission is made by the LMF in respect of the National Policy Statement on Urban Development Capacity (NPS-UDC). While the LMF appreciates the need for a NPS-UDC, it is concerned about the whereabouts of future development and strongly recommends that the continuous development of versatile land is avoided for the reasons provided below.

Reasons for Making this Submission

Versatile land is a finite and ever-decreasing resource. By most accounts, and using the Land Use Capability (LUC) Classification system, versatile land has been defined by some practitioners as LUC classes 1 and 2 [with negligible (class 1), or slight (class 2) physical limitations for arable use] (Andrew and Dymond, 2012, Rutledge et al., 2010). In New Zealand, class 1 and 2 land represents 5% of the total land area (Appendix 1a). Other practitioners consider LUC classes 1, 2 and 3 to be versatile land (with class 3 having moderate physical limitations for arable use), which represents 15% of New Zealand's total area (Appendix 1b). Versatility is implied in the LUC classification system (i.e. it encompasses the soil, climatic, erodibility and wetness limitations or advantages of the land and soil attributes for a parcel of land). It treats class 1 land as the most versatile LUC class with versatility decreasing down the scale towards LUC class 8 land (Lynn et al., 2009).

Versatile land is extremely important to New Zealand's economy, because, unlike urban development, certain rural land use activities, such as outdoor vegetable production, are limited to versatile land. Domestic retail sales of fresh and processed vegetables are estimated at NZ\$1 billion each year, and export earnings range between \$500 and \$600 million (Ministry for Primary Industries, 2013). These operations are only suitable on multiple-use, highly versatile land. Where pastoral farming systems are concerned, greater farm profits (NZ\$/ha) will be realised where farming occurs on versatile land. Using model simulations, the operating profits for simulated dairy farm systems were similar for pasture production or LUC classes 1 (\$2898/ha) and 2 (\$2858/ha) but declined for classes 3 (\$1732/ha) and 4 (\$825/ha). Similarly for simulated sheep and beef farming systems, greater operating profits were realised for classes 2 (\$434/ha) and 3 (\$315/ha) with profits declining on classes 4 to 6 (\$236 to negative \$20/ha) (Vogeler et al., 2014).

New Zealand's long-term economic future will continue to rely heavily on the availability of versatile land for the production, and export, of high quality, high value food products for consumers. Therefore, highly versatile land must be protected from urban development.

Submission – Development pressures confronting versatile land

Regionally, nationally and globally there are increasing concerns about the competition between versatile land and urban development, with the latter disproportionately encroaching onto the best high class land (Curran-Cournane et al., 2014, Rutledge et al., 2010, Tóth, 2012). Once versatile land is converted to development, it is effectively lost forever.

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Rutledge *et al.* (2010) reported that urbanisation disproportionately affects New Zealand's most high class and productive soils which could have a negative impact on New Zealand's primary production capacity in the future. These authors reported that urbanisation rates across New Zealand were highest for LUC class 1 (6% converted land) and class 2 (4%) compared with LUC classes 3 to 8 (these ranged from < 0.01-2.0%). On a regional basis, this can increase to >8% for LUC class 1 and >11% for LUC class 2 being converted to urban development, which was recorded for Auckland between years 1975-2012 (Curran-Cournane *et al.*, 2014). While only representing <0.5% of New Zealand's versatile land, the Auckland region has been reported to contribute over 20% of the country's outdoor vegetable production (Aitken and Hewett, 2014). When future urban growth pressures up to 2040 in Auckland are considered, 21% of LUC class 1 and 29% LUC class 2 is expected to be converted to development (Appendix 2) (Curran-Cournane, 2014, Appendix 1) .

Furthermore, non-productive rural lifestyle blocks currently cover 187,000 hectares of land and occupy 10% of New Zealand's high class land (LUC 1 to 2) (Andrew and Dymond, 2012). While a separate land use pressure confronting versatile land, it is nonetheless a very important one. This raises concerns about the cumulative effect of various development pressures such as urban encroachment, the expansion of lifestyle blocks, plan changes and individual resource consent decisions occurring on versatile land. There is currently no dedicated national overview on the adverse cumulative effects of these development pressures occurring on this finite and ever-decreasing resource. Current figures estimate that a large percentage of LUC class 1 and 2 land could be converted to urban development over the next 50 to 100 years if such trends continue (Rutledge *et al.*, 2010). This threatens the existence of certain rural land use activities in the near future, with ongoing effects for the next generation.

Submission – Implications of continuous development of versatile land

On Page 21 of the NPS-UDC consultation document, it discusses that the protection and management of natural resources comes at a cost. We argue that the lack of protection of New Zealand's remaining versatile land from development pressures will come at a higher cost to society.

Food Production and Sustainability

Being and remaining a self-sufficient food producing nation makes absolute sense in a world where there are increasing uncertainties surrounding the state of natural resources such as the availability of versatile agricultural land, water scarcity and extreme weather events that can affect regional, national and global food production.

Globally, it has been estimated that 70% more food is required to provide sustenance to the forecast 9.2 billion population by 2050 (FAO, 2010). As an example, in Melbourne, Australia's fastest growing city, it has been estimated that 60% more food is required to meet the increased populations' needs by 2050. Melbourne can currently produce 82% of the population's vegetable production needs which reduces to around 21% by 2050. This is reportedly due to the 16% of Melbourne's versatile food-bowl farmland that is vulnerable to housing and other commercial development (Sheridan *et al.*, 2015).

Current and future food requirement needs for New Zealanders are not known and there is no overarching policy that safeguards the country's food security for current and future generations. Therefore, land use decisions allowing the development of versatile land are being made without fully understanding the consequences of such decisions. This can create risks in food supply as over-reliance on inter-regional and overseas supplies of basic food staples can create vulnerabilities in a food system for society.

For example, in the United States the export prices for corn escalated to over 120% above the 20-year historical average as a result of drought-related crop damage in 2012 (Adonizio and Royales, 2012). The U.S. produces 40% of the world's corn and therefore demonstrates the risks associated with relying on imported

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goods. A little closer to home, Australia has always been subject to climate extremes such as droughts and flooding rains. As an indirect result of drought from September 2005 to September 2006, the price of fresh fruit and vegetables in the country increased by 43% and 33%, respectively (Quiggan, 2007). As urban encroachment onto versatile land continues in New Zealand, it will threaten the country's self-sufficiency as a food-producing nation. As reliance on international food imports increases it will also become increasingly exposed to fluctuating and volatile food prices.

A self-sufficient food-producing nation also has greater quality control over food production as well as employee and farm welfare. It also promotes the concept of sustainable food miles that, in the most basic of terms, is defined as the distance that food travels from farm to plate (consumption) i.e. the larger the distance the larger the impact on the environment (Passel, 2013). While the concept of food miles does require the consideration of a complex mix of interacting factors (e.g. life cycle analysis of energy use), reducing food transport is advisable once it does not have counterproductive sustainability impacts, such as employee welfare trade-offs (Passel, 2013). Reduced transport distances are also important for perishable goods with a short shelf life such as leafy green crops.

Rural Farming Livelihoods and Reverse Sensitivity

Understanding the potential impacts of land use change from the perspectives of those who farm the land, and who will be directly affected by the change, is also of paramount importance because how they respond to increased urban growth potentially could impact the resilience and self-sufficiency of a food producing nation.

The concept of 'reverse sensitivity' was raised in the NPS-UDC but only in context to business needs (page 24 of the consultation document). However, this is a very important issue that needs consideration. Within a rural community new urban neighbours moving into rural environments can place high importance on the aesthetic values of open space (Howley, 2011, Lokocz et al., 2011). At the same time newcomers can consider the practice and operation of farming equipment such as noisy machinery and routine application of fertilisers and irrigation as an impediment to their quality of life (Berry and Plaut, 1978, Condon et al., 2010). The fact that farming is inseparable from the land on which it is carried out and from the place where farming families also live has quite different relevance, both economic and social, for those with farming connections compared to non-farming families (Hicks et al., 2012). While the needs of newcomers moving to rural settings will be met (e.g. utilities), it is their wishes or demands (e.g. desire for peace and quiet) that compete with the farming activities of the land's original occupants that create clear tensions between the two (Curran-Cournane et al., 2016).

Decision Requested

The Land Monitoring Forum (LMF) requests that due recognition be given to the need to protect and sustain the availability of versatile land, a finite and steadily diminishing resource. While the LMF appreciates the need for a NPS-UDC, it is concerned about the whereabouts of future development and strongly recommends that the continuous development of versatile land is avoided for the reasons provided above. Unlike urban development, certain rural food-producing activities are limited to versatile land which cannot be substituted elsewhere. This remaining finite resource is under critical threat, and will become ever more important as the population continues to grow.

Yours sincerely

Land Monitoring Forum

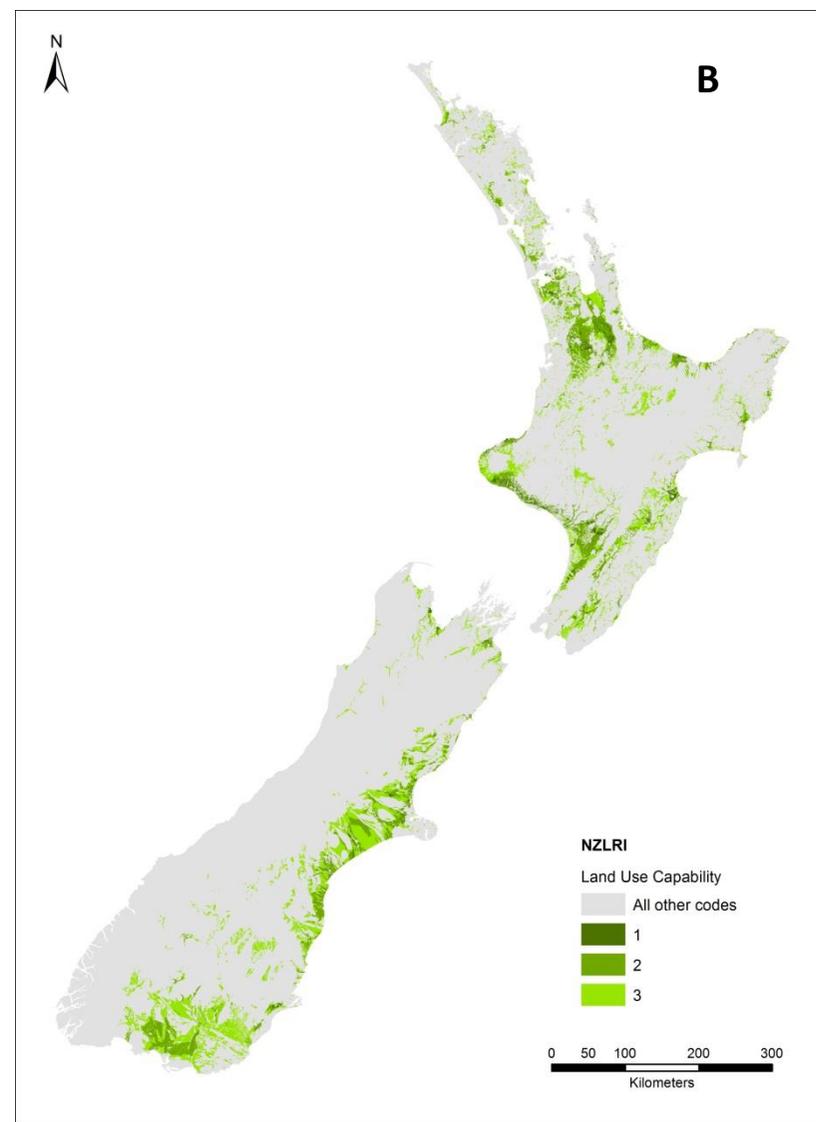
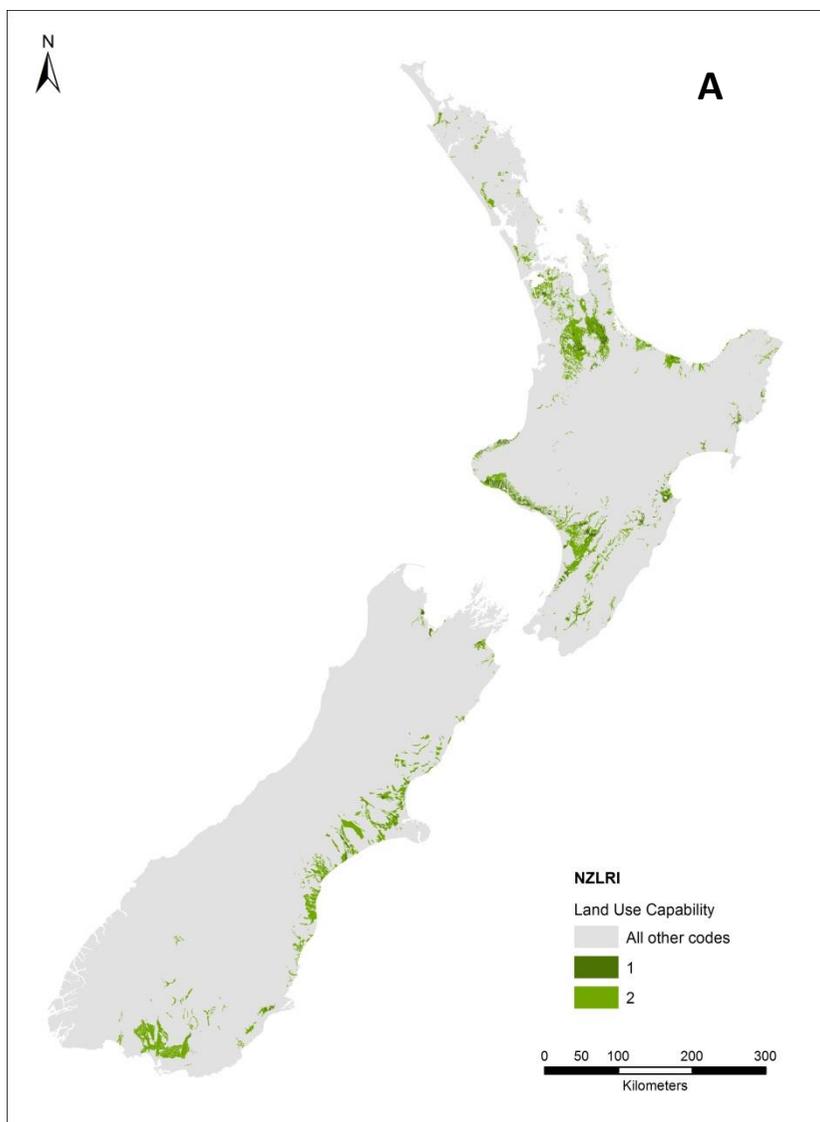
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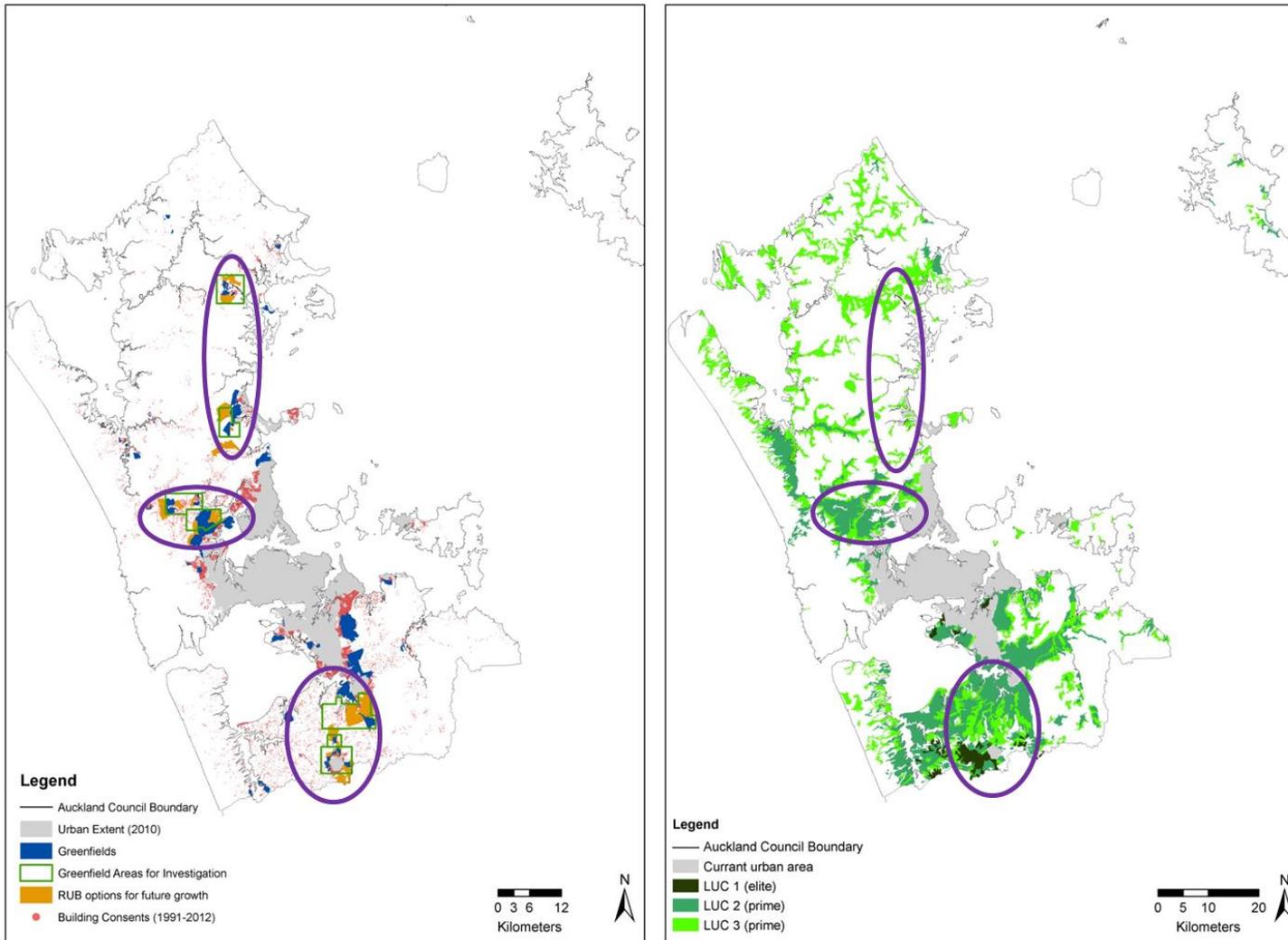
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Appendix 1. Distribution of New Zealand's Land Use Capability classes (A) 1 - 2 and (B) 1 – 3 (New Zealand Land Resource Inventory).

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Appendix 2. Location of growth patterns in relation to the distribution of versatile land in Auckland.

Publication and Official Information Act requests

If requested, we may release your submission under the Official Information Act 1982. We may also publish all or some of it on the Ministry website.

Please check this box if you would like your name, address, and any personal details withheld.

Note that the name, email, and submitter type fields must be completed.

Send us your submission

Email submissions to npsurbandevelopment@mfe.govt.nz.

Post submissions to: NPS Urban Development Capacity, Ministry for the Environment, PO Box 106483, Auckland City 1143.

Submissions close at 5.00pm on Friday 15 July 2016.