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The Secretary
Standing Committee on Climate Change, Environment and Water
Legislative Assembly for the ACT
GPO Box 1020
Canberra
ACT 2601

Dear Sir/Madam

I hereby wish to make a submission to the Inquiry into the ecological carrying capacity of the ACT and region.

Firstly I wish to remind the members of the committee of the IPAT equation. I should not have to do this but as the population variable in this equation is so often ignored the equation should be reiterated.

$$I = P \times A \times T$$

This indicates that human Impact (I) on the environment including greenhouse gas emissions equals the product of population (P), affluence (A: consumption per capita) and technology (T: environmental impact per unit of consumption).

My second point is to remind the committee of the problem of population overshoot. There is no point in determining the carrying capacity of a region unless the number arrived at is seen as the real long-term target. This figure will clearly require careful slowing of population numbers in the period leading up to the suggested maximum.

Thirdly, a buffer (perhaps of 10-20%) should be kept between the actual size of the population allowed and the estimated carrying capacity. I know of no reports that indicate that the environmental conditions of our region will improve in the foreseeable future so we need to take these into account, follow the precautionary principle, and leave a margin for the unexpected.

I am reminded of the need for caution by a recent paper by Pimental and colleagues published in Human Ecology (copy enclosed). The authors indicate that "in about 100 years, when it is reported that the planet will run out of fossil energy, we suggest that a world population of about two billion might be sustainable if it relies on renewable energy technologies and also reduces per capita use of the earth's natural resources".

Finally, I note the ACT government's very sensible target of 40% reduction of greenhouse gas emissions from 1990 levels by 2020. This is going to be almost

impossible to achieve if the population continues to increase at current levels. This is brought into sharp perspective by the findings of Birrell and Healy published last year in the journal People and Place (copy enclosed). The authors have calculated, based on Treasury modelling, the contribution of population growth to Australian greenhouse gas emissions between 2000 and 2020. They show that 83% of the forecast growth in emissions will be attributable to population growth. If this is even 50% relevant to the ACT it presents a great challenge to the government's target.

I trust that the committee will identify a carrying capacity for the region that will allow us to maintain our quality of life in the face of the clear environmental challenges that face us. Even in today's Canberra Times (page 15) we are reminded of this when Dr Mark Hearn suggests, when discussing one component of our environmental challenges, water allocation reductions in relation to the waters of the Murrumbidgee, that such environmental issues "will compel a profound reconsideration of the relationship between human society and the environment". There are many environment related issues facing us and rather than accepting "business as usual" your deliberations must take such profound reconsiderations into account.

Yours sincerely

Kieran Fallon

November 1, 2010