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Mornington Peninsula Shire

Executive Officer
Environment and Natural Resources Committee
Parliament House
Spring Street
East Melbourne Vic 3002

Dear Sir/Madam

RE Inquiry into soil sequestration in Victoria

Thank you for the opportunity to make a submission into this Inquiry. Council has made a commitment to developing a Sustainable Peninsula and soil sequestration may be one of a range of strategies used in the future to reduce the impact of our greenhouse gas emissions.

Explore possible environmental benefits
Council has been supporting the research work of the University of Melbourne, Dr Stephen Livesley (Research Fellow), Sascha Andrusiak and Daniel Idzak to investigate some of the environmental benefits of remnant woodlands in the agricultural landscape of the Mornington Peninsula ridge and foreshore areas.

The aim of the work is to better understand the soil properties in remnant woodlands as compared to horticultural and pastoral systems. The work will measure contrasting soil conditions, nutrient cycling and greenhouse gas exchange in six ecosystems of the Peninsula.

The woodland, vineyards and pastures are likely to have different soil carbon, nutrient cycling and greenhouse gas exchange characteristics. Understanding the soil carbon and greenhouse gas status of these remnant ecosystems and the pastoral and horticultural ecosystems that have replaced them, will help us to better manage and value these assets. It will also assist in developing a regional greenhouse gas inventory.

Explore options for the Victorian Government to support the benefits (if any) of soil sequestration
Soil sequestration may have significant potential benefits to the agricultural industry on the Mornington Peninsula in the future. The Shire has some of the most productive agricultural land in Victoria and has the added advantage of its proximity to Melbourne.

In addition, there will be an abundant supply of Class A water in 2012 from the Eastern Purification Plant in Carrum which currently has its outfall pipe going through the Peninsula's agricultural areas to the Gunnamatta outfall. This can provide a secure water supply of an appropriate quality for growers and farmers, leading to an increase in agricultural productivity. Coupled with the availability of a secure water supply, soil sequestration could further increase this productivity.

Council is currently seeking State Government support for the development of a food bowl around the Tyabb area. Soil sequestration could potentially provide additional benefits and output for this region. It is known that higher levels of carbon in soil structure boosts fertility, microbial activity, water retention capabilities and support for ground cover such as pasture.

Whilst the many benefits of soil carbon sequestration are recognised, not much is known about how to actually increase local soil carbon levels. There is great potential for all levels of government to work with relevant stakeholders in a leadership capacity. Workshops, seminars and provision of information to all land owners on carbon sequestration in soils are a priority.

Further, local intensive horticulture farmers regularly sow and plough into the land green crops to feed soil bacteria and increase carbon levels. The productivity of the soil is maintained - the evidence is from these farmers having farmed the same land for many generations.

The advent of the Tyabb Intensive Agriculture Zone and the Bunyip Food Belt projects, which have the potential to cover 25,000 hectares+ , provides a great opportunity for government to work with industry in protecting food production for Melbourne.

Food security is a rapidly emerging issue, where valuable agricultural land requires protection and support for providing Melbourne's future food requirements. Climate Change is having a major impact on land capability; carbon sequestration in fertile lands where water is available is a critical matter.

The Mornington Peninsula Shire encourages the Victorian State Government to raise the awareness and potential of carbon sequestration in soils to all landowners.

Suggested areas for further investigation
The following matters are brought to the Inquiry's attention for further investigation :

- Events that might cause a natural or man-made loss and how this ought to be accounted for in any system.
- The likely impact of sequestration schemes on indigenous biodiversity values and whether the two could be satisfactorily aligned for a win-win situation.

- Whether any regular monitoring system should be set up across Victoria.
- The availability of new research regarding sequestration to relevant parties including landowners.
- Whether any sequestration schemes have the potential to adversely impact upon agriculture (i.e. reduce the flexibility for change in use, change market conditions resulting in a changed pattern of agricultural uses)
- Identify who is the owner of the sequestered carbon in any scheme and how could it be protected, accounted for and traded, taking into account any legislative or other changes that might be required to define relationships between land owners and carbon owners.

Should you wish to clarify any of these comments, please contact me on telephone 5950 1334.

Yours sincerely

Sophia Schyschow
Manager Renewable Resources