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1 LAND RESOURCES

ISSUE

There are some areas of the Timaru District where there is concern that the sustainability of the land resource is being undermined by land management that:

- results in or contributes to the physical loss of the soil resource, or the degradation of soil quality affecting the life supporting capacity of the soil, and the ability of the soil resource to meet the reasonably foreseeable needs of future generations
- fails to correct degraded land conditions

Explanation

Urban and rural land uses produce a range of environmental effects, some of which may have adverse effects on the sustainability of the land resource. Such adverse environmental effects may include:

- *loss of vegetation cover*
- *loss of soil*
- *loss of soil structure and nutrients*
- *loss of soil micro-organisms*
- *contamination of soil*
- *coverage, compaction, and removal of the most versatile soils*

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OBJECTIVE

- (1) Achieve the sustainability of the District's land resource by:
- maintaining the life-supporting capacity of soils
 - preventing induced land degradation
 - restoring degraded land
 - managing the stock of versatile land for the greatest benefit to present and future generations
 - maintaining a representative range of natural ecosystems

Principal Reason

Seeks to promote the sustainable use of land which is an important natural and physical resource and contributes to biodiversity.

POLICIES

- (1) To identify areas where degradation of the land resource has occurred or has the potential to occur as the result of existing land use practices.
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Explanation and Principal Reason

Some current land use practices may be contributing to the physical loss of soil and the contamination of soil. In the absence of information on the status of the land resource, the Council is committed to working with the Canterbury Regional Council and other bodies involved with caring for the land resource.

- (2) To promote the restoration of degraded lands and to prevent the degradation of further areas.

Explanation and Principal Reason

The Council is committed to gaining a better understanding of the state of the land resource and changes in its quality. Methods for the maintenance, enhancement or protection of land will be investigated. The Canterbury Regional Council is investigating a range of issues regarding degraded lands as part of the process of preparing its Natural Resources Regional Plan. The District Council will liaise with the Region over the development of that Plan (see Part B(5)(c) Management of Hazardous Substances).

- (3) To discourage development that would result in irreversible adverse effects on versatile soils unless it is for the overall benefit of the community including future generations. Such effects may include coverage, compaction or removal of versatile land.

Explanation and Principal Reason

Versatile land (Class I and II soils as defined under the Land Use Classification System) has inherent qualities, such as soil depth and water holding capacity, which enable a wide range of productive uses.

This policy also acknowledges the special recognition given by the Regional Policy Statement (RPS) to the most versatile land. The RPS seeks to “minimise the irreversible effect of land use activities on land comprising versatile soils where such use would foreclose future land use options that benefit from being located on those soils, where it is practicable to do so” (see Objective 2 and Policy 6, Chapter 7, Soils and Land Use, pp87-89).

In general lesser quality land requires higher energy input (eg fertiliser), to achieve productivity comparable to the most versatile land. In the absence of appropriate controls, activities which remove the opportunity to use land for primary production, such as extensive building development or the current pattern of rural residential development on more versatile land, are likely to continue, resulting

in a net reduction in the area of the most versatile land available in the district. As versatile land is a valuable resource, irreversible usage should be avoided.

- (4) Land use activities in the high country should be carried out in such a way that vegetation cover be maintained to assist in sustaining the life-supporting capacity of the soil.

Explanation and Principal Reason

The loss of vegetation cover in the hill and high country by burning, cultivation or overgrazing has been identified in the Regional Policy Statement (p75) as contributing to induced soil erosion and the degradation of soil health.

METHODS

- (1) Review available knowledge on the status of the land resource with the aim of identifying whether a problem does exist and to establish an information base on soil quality and possible threats to land.

Principal Reason

There is insufficient information available about the degradation of the land resource in this District. A review of research undertaken in this District of areas with similar land and climatic characteristics will help to identify the extent of any degradation problems that may exist.

Should problems relating to land management be identified, the Council will consider the most appropriate means of addressing the issue (in consultation with the Canterbury Regional Council) to limit degradation or encourage enhancement of the land resource.

Where a problem does exist the Council is committed to restoring the land resource through a range of mechanisms designed to encourage alternative land use practices.

- (2) Separately zone those areas of the District with versatile land (Land Use Class I and II) and assess applications for their adverse effects on versatile land.

Principal Reason

Zoning patterns of land use based on Class I and II soils does not disqualify the development of land with versatile soils. Each case shall be examined on its merits for its adverse effects on the land resource. This ensures that the protection of soil quality and land versatility are given particular attention.

- (3) Promote alternative land management practices to the burning of vegetation where more sustainable options are available and advocate practices which mitigate or prevent the degradation of indigenous flora and fauna.

Principal Reason

Council can review existing research on this issue and consider promoting more efficient burning management practices or alternative land management techniques as an approach to reducing some of the adverse effects.

Reduction of soil erosion; siltation of waterways and associated costs; and adverse effects of toxic chemicals, should provide for general environmental improvement (see Part B(6) Air Quality).

- (4) Provide for research and investigations into techniques for sustainable land management in co-operation with other District Councils, and the Regional Council; information exchange with landholders; and assist Landcare groups in order to encourage more sustainable outcomes.

Principal Reason

Increases knowledge of sustainable land use and assists land users to alter land use practices.

ANTICIPATED ENVIRONMENTAL OUTCOMES

- (1) Minor loss of versatile land to activities not reliant on such land.
- (2) Decrease in areas that have been degraded or contaminated.
- (3) Greater awareness of the hazards associated with contaminated sites.
- (4) Greater awareness of the effects associated with land use practices.

MONITORING

- (1) Review of policy effectiveness after 5 years including identification of areas that have been rehabilitated.
- (2) Monitoring of loss of versatile land to activities not reliant on such land.
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