

18. SLOPE AND GEOLOGICAL STABILITY

18.1 Explanation

“Slope” refers to the inclination of topography or altered made grade (refer the Administrative definitions in Volume 1 of the Planning Scheme). “Geological Stability” refers to the particular interaction of soil, underlying rock, groundwater and slope on the stability of any site.

18.2 Key Issues

The key issues dictating the planning strategy for steep and geologically unstable land include:

- the impact of clearing and grazing on steep or unstable land leading to sheet or gully erosion, hillside creep, slumping or debris flows; in urban areas, conventional residential development on steep or unstable lands requiring overly steep batters, retaining walls and fill which may result in structural failure, soil erosion and drainage issues with adjoining landowners;
- the implications of soil erosion and landslip on the wider community, in the form of eroded material transported to a water body, reducing water quality, affecting the aquatic environment and the carrying capacity of the waterbody and aggravating localised flooding and impacting on riverine vegetation and stream bank stability;
- the existence of areas within Maroochy Shire which are not only steep but also particularly prone to slope failure including benches and scarps associated with the basalt plateaus in the Mapleton-Montville area and at Buderim and areas with high ground water pressures or ground water levels in the Coolum area;
- the management issues associated with inappropriate development on overly steep or unstable land and the importance of land use controls in mitigating such impacts; and
- the loading of steep and unstable land with water from stormwater run-off and/or effluent disposal may increase the risk of landslip.

18.3 Slope and Geological Stability Strategy

The following outlines the elements of the planning strategy to be employed for the development of steep and geologically unstable land.

18.3.1 The Slope and Geological Stability Strategy requires matching the range of land uses to the difficulties imposed by the topography of the land, by requiring, where there is an area of known geological instability, such information as is necessary to determine the suitability of the site for the proposed development

and by imposing such conditions as are necessary to minimise the potential for soil erosion and landslip.

18.4 Objectives and Implementation Measures

18.4.1 To Encourage Activities Appropriate to the Slope of the Land

In the rural parts of the Shire, land steeper than 20 to 25% is generally included in the preferred dominant land uses of Rural or Valued Habitat where a wide range of rural and rural related activities is permitted.

In urban areas, recognition is given to the limitations of slope, particularly on multi-unit density, lot size and dimensions. This has important implications for the standards and Performance Criteria adopted for the reconfiguration of land and forms and design of urban development in such areas.

Implementation

1. When assessing development applications, Council will give preference to proposals which recognise the natural characteristics of a site.
2. In assessing a proposal on land classified on Regulatory Map 1.3 (1 of 2) Landslip Hazard as being of moderate, high or very high hazard, or classified as low or very low but with slopes of 15% or greater in areas A to H or classified as low or very low but with slopes of 20% or greater in other areas, due regard shall be given to:
 - the probability of soil erosion and landslip;
 - the potential for structural failure;
 - the likely impact of drainage on adjoining properties;
 - the extent of earthworks;
 - the likely impact of vegetation removal on stability;
 - the impact on permanent and intermittent watercourses; and
 - the potential for visual scarring.
3. Where land has been included in the preferred dominant land use of Rural or Valued Habitat, recognition has been given in part to the importance of vegetation protection as an appropriate land management strategy. Development in these areas shall be in accordance with the provisions relating to Rural or Valued Habitat as described in Section 10.0 of this Strategic Plan.

4. Council has prepared a code for the assessment and management of land on steep and unstable land to ensure the key issues outlined in 18.2 are adequately addressed.
5. If after assessing any proposal on steep land, Council is not satisfied that the development can be appropriately managed, it may not support the application.

18.4.2 To Ensure that Due Regard is Given to the Constraints of Likely Geological Instability

There are areas of known geological instability within the Shire.

Implementation

1. A geotechnical report will be requested for development applications where land is affected by land prone to slippage, as determined by the regulatory maps included in this Planning Scheme.
2. This geotechnical report will address the matters detailed in Planning Scheme Policy No. 4.- Preparation of Geotechnical Reports.
3. The geotechnical report will be prepared by an appropriately qualified professional⁵.
4. If after assessing any proposal on land prone to slippage, Council is not satisfied the land can be appropriately managed, it may not support the application.

⁵ An appropriately qualified professional is described in Planning Scheme Policy No. - 4 Preparation of Geotechnical Reports