

Coastal Slope Stability at Cowes and Gurnard, Isle of Wight

In February 2000, the Centre for the Coastal Environment within the Isle of Wight Council commissioned Halcrow Group Limited to carry out a coastal slope stability study from Cowes to Gurnard. The study area extends from Market Hill, in central Cowes, west to Gurnard Marsh, and inland as far as Baring Road and Solent View Road.



'Cowes, looking west'

Photo: Brian Manby

The main objectives of the study were to review the stability of the coastal slopes and to provide guidance for future planning and development. The study involved a thorough review of available information and the preparation of maps summarising the ground conditions and planning guidance. The study has revealed variable ground conditions, including stable and unstable ground and large landslides in some areas. The potential hazards to development include localised failure of slopes, deep-seated slow ground movement, surface creep and ground heave.

The information has assisted several specific objectives, as follows:

- **Determining the nature and extent of unstable land**
- **Understanding the variable ground behaviour**
- **Identification of stable areas on which development may take place with little risk of instability**
- **Recommending slope management options to reduce the impact of potential ground movement**

The purpose of this leaflet is to advise developers and homeowners of the ways in which you can help minimise the effects of potential ground movement on your property, and avoid contributing to instability outside your property boundaries.

What you can do

Halcrow



Development Proposals and Alterations to Property:

- **Find out** more about your development site and refer to the information on ground behaviour conditions by reference to the report and maps and by seeking professional advice. In certain highlighted areas, you may need to seek specialist advice from a geotechnical engineer to assess the risks to your proposals, including the possible effects of ground movement during the lifetime of the proposed development. It is the developer's and/or landowner's responsibility to determine whether land is suitable for the proposed development and that the development can be safely built without harm to adjacent land or property.
- **Discuss** your proposals with the Isle of Wight Council Planning Section as soon as possible. They can advise you on the suitability of your proposals and the level of geotechnical information that will be required to be submitted with the planning application.
- **Ensure that** appropriate ground investigations are carried out, where required, by competent specialists and that your development is planned and designed with due regard to the ground conditions revealed. Your advisors should also consider the need for stabilisation or protection works to safeguard the proposed development. Consider also, the need for monitoring and maintenance where appropriate.
- **Avoid** building near, or cutting into, steep slopes, unless detailed investigations by a geotechnical specialist confirm that there is no stability risk.
- **Ensure that** construction activities are supervised by competent staff and any changes in design or unexpected ground conditions are referred to the designer.

Homeowners:

If you think you have structural damage to your property, or if your property insurers will not cover you for damage against subsidence or landslip then:

- **Consult the report and maps,**
- **Contact the Isle of Wight Council, and**
- **Seek professional advice.**
- **Inspection:** carry out regular inspection of buildings, walls and roads in the vicinity of your property. Report any new damage you consider might be due to ground movement to the Isle of Wight Council. Immediately report any leakages from water mains or uncontrolled flow of storm water. If you are concerned about the possible effects of nearby construction activities on your property, contact the Isle of Wight Council for advice.
- **General Repairs:** in areas subject to ground movement it is possible to reduce the effects of crack damage by using suitable flexible materials and fillers. Use of movement joints, flexible pipes and service connections can significantly reduce the effects of slow ground movements and the need for maintenance.
- **Slopes and Retaining Walls:** if your property is near these features, the following should be avoided, unless detailed investigations by a geotechnical specialist confirm that there is no stability risk:
 - Excavations at the toe or into the face of slopes,
 - Filling or tipping at the crest and onto the face of slopes,
 - Removal of dense vegetation, particularly trees and shrubs, which bind the soil and help remove water from the ground, **and**
 - Regularly inspect retaining walls for signs of distress such as bulging. Arrange repairs promptly.
- **Control of Water in the Ground:** prevention of water from entering the ground is important and can reduce the potential for ground movement. In areas subject to ground movement the following measures can only do good:
 - Drain storm water run-off to sealed drains. Avoid prolonged use of garden hoses and sprinklers.
 - Repair leakages to ponds and swimming pools promptly. Drain ponds and pools to sealed drains.
 - Landscape your property to prevent ponding and ensure adequate drainage. Keep channels free of debris and blockages, including drains and gutters.

For information about specific sites or for further details about the study please contact:

Mr R G McInnes, Coastal Manager, Isle of Wight Council, Directorate of Environment Services, County Hall
Newport, Isle of Wight PO30 1UD

Tel: **01983 823770** Fax: **01983 823707**

or contact the Planning Section on

Tel: **01983 823552** Fax: **01983 823563**