31/01/2013
C68

SCHEDULE 1 TO THE EROSION MANAGEMENT OVERLAY

Shown on the planning scheme map as **EMO1.**

1.0 Land susceptible to landslip and erosion

31/01/2013
C68

The Shire contains areas which are susceptible to landslip, including land throughout the Otway Ranges.

A number of geotechnical studies have been undertaken, in various forms and scope, within Colac Otway by various public agencies.

Colac Otway Shire Council has adopted updated landslip and erosion data for the whole Shire and subsequent reviews of selected areas displaying a greater complexity of landslip and erosion issues.

All land included in the Erosion Management Overlay has been identified as having a sufficiently high risk of potential instability to warrant specific review of these risks prior to the construction of buildings, commencement of works and the removal of vegetation as outlined below.

2.0 Definitions

31/01/2013
C68

AGS Guidelines 2007 means including all Practice Notes Guidelines (Part C) and Commentary (Part D).

Geotechnical Practitioner means a specialist Geotechnical Engineer or Engineering Geologist who is degree qualified, is a member of a professional institute, with experience in the management of slope stability problems and landslip risk management as a core competence.

Landslide, as defined by the AGS Guidelines 2007, or "**landslip**", as defined by the VPPs, means the movement of a mass of rock, debris or earth down a slope. This includes debris flow, which is the rapid flow of water saturated soil or rock debris.

Acceptable Risk – A risk for which, for the purposes of life or work, we are prepared to accept as it is with no regard to its management. Society does not generally consider expenditure in further reducing such risks justifiable. An acceptable risk level for new development or changes to existing development a risk to life and/or risk to property is in accordance with the AGS Guidelines 2007. It reflects a combination of the slope and type of development proposed.

Tolerable Risk – A risk within a range that society can live with so as to secure certain net benefits. It is a range of risk regarded as non-negligible and needing to be kept under review and reduced further if possible. Tolerable Risk for new development or changes to existing development a risk to life and/or risk to property is in accordance with the AGS Guidelines 2007.

3.0 Guidance for users

31/01/2013
C68

This schedule;

- Requires at a minimum a Geotechnical Assessment to be prepared by a suitably qualified professional; and
- Potentially requires a Landslip Risk Assessment to be prepared where required by a Geotechnical Assessment or where the site is located within the slope thresholds contained in Clause 6.0 of this schedule by a suitably qualified professional.

4.0 Objectives

31/01/2013
C68

- To manage the risk of landslip.

- To ensure that development can be carried out in a manner which will not adversely increase the landslip risk to life or property affecting the subject land or adjoining or nearby land.
- To ensure that development is not carried out unless the risk associated with the development is a Tolerable Risk or lower.
- To ensure that applications for development are supported by adequate investigation and documentation of geotechnical and related structural matters.
- To ensure that development is only carried out if identified geotechnical and related structural engineering risks to life and property are effectively addressed.

5.0 Exemptions from permit requirements

31/01/2013
C68

A permit is not required to construct or carry out the following:

- Earthworks that do not exceed 1m in depth or fill exceeding 1m in height; or
- A retaining wall that does not exceed 1m in height that is replacing an existing retaining wall with the same form of construction and dimensions and/or materials of improved durability and is not associated with other building construction work and does not provide landslip protection for any adjoining land; or
- Extension to the floor area of an existing building, including decks and verandahs provided that there is no increase in the ground surface area covered by roofed buildings and the floor area of the extension does not exceed 20m2; or
- Road works undertaken by a public authority; or
- Minor structures ancillary to an existing dwelling where the floor area of the structure does not exceed 20m2; or
- The removal, destruction or lopping of any vegetation providing the roots below ground level are retained; or
- Timber production where all timber production activities comply with the Code of Forest Practices for Timber Production (Revision No.2 November 1996) or as amended from time to time in accordance with section 55 of the Conservation, Forests and Lands Act 1987, and/or the Timber harvesting Prescriptions for Environmental Protection – Otway Region Private Land Native Forests and Plantations, where details of management of landslip risk have been provided to the satisfaction of the Responsible Authority; or
- In the Farming Zone, the construction of an outbuilding with a floor area less than 150m2 for non habitable agricultural purposes.

6.0 Application requirements

31/01/2013
C68

An application for a planning permit must be accompanied by a Geotechnical Declaration and Verification Form (Form A) and include the information set out below, to the satisfaction of the Responsible Authority.

Development Plans

Development plans drawn to scale and dimensioned, showing as appropriate:

- The proposed development, including a site plan and building elevations, access, any proposed cut and fill, retaining wall or effluent disposal system.
- Any existing development, including buildings, water tanks and dams on both the subject lot and adjacent land (as appropriate).
- Any existing development on the subject lot, including cut and fill, stormwater drainage, subsurface drainage, water supply pipelines, sewerage pipelines or effluent disposal installations and pipelines and any otherwise identified geotechnical hazard.
- Details and location of existing vegetation, including any vegetation to be removed.

Geotechnical Assessment

A written Geotechnical Assessment must be prepared by a suitably qualified and experienced Geotechnical Practitioner in accordance with the methodology described below and with reference to the AGS Guidelines 2007. The Geotechnical Assessment must be for the development proposed in the application and include, to the satisfaction of the Responsible Authority:

- Details of the Geotechnical Practitioner and their qualifications and experience including but not limited to experience in the management of slope instability problems and landslip risk management.
- A statement that the assessment is based on field survey measurements which have been undertaken not more than 12 months prior to the relevant application for development.
- A detailed site description.
- Site assessment plans and cross-sections of the subject lot within the landslip impact zone and related land form survey and field measurements with contours and ground slopes as measured shown and drawn to scale and dimensioned.
- A detailed assessment of subsurface conditions, including the underlying geology.
- A statement indicating whether there are natural slopes on or immediately adjacent to the subject lot which exhibit evidence of possible or past landslip.
- Details of all site investigations and any other information used in preparation of the geotechnical report.
- A statement indicating whether site investigation requires subsurface investigation or may involve boreholes and/or test pit excavations or other methods necessary to adequately assess the geotechnical/geological model for the subject lot and details of all such investigations, boreholes, test pits or other methods.
- Include a statement indicating that the risks for all slope instability hazards identified, are of an acceptable risk level (as defined above) and will remain at an acceptable risk level over the design life of the development such that a Landslip Risk Assessment (as described in the following section) is not required.
- Where it is considered that a Landslip Risk Assessment is not required, state that, in the opinion of the Geotechnical Practitioner, the development can be carried out in a manner which will not adversely increase the landslip risk to life or property affecting the subject lot or adjoining or nearby land
- A statement as to whether the subject lot/s are suitable for the proposed development, or can be made suitable for the proposed development, and that the subject lot/s and the proposed development can meet the tolerable risk criteria, as defined in this schedule.
- A statement indicating whether or not development should only be approved subject to conditions, and if so state recommendations of what conditions should be required including but without limitation conditions relating to:
  - The determination of appropriate footing levels and foundation materials in any structural works, including all footings and retaining walls.
  - The location/s of and depth/s of earth and rock cut and fill.
  - The construction of any excavations and fill and the method of retention of such works.
  - Any details of surface and sub-surface drainage.
  - The selection and design of a building structure system to minimise the effects of all identified geotechnical hazards.
  - Retention, replanting and new planting of vegetation.
  - Any drainage and effluent discharge.
  - Any necessary ongoing mitigation and maintenance measures and any recommended periodic inspections, including performance measures.
  - The time within which works must be completed after commencement and the location/s and period in which materials associated with the development can be stockpiled.

- Any requirements for geotechnical inspections and approvals that may need to be incorporated into a construction work plan for building approval.

- A statement on whether or not a Landslip Risk Assessment is required.

Landslide/Landslip Risk Assessment

A written Landslip Risk Assessment of the proposed development must be included in the application for a planning permit if the Geotechnical Assessment or other landform data (a detailed site survey) indicates natural slopes on or immediately adjacent to the subject lot which:

- are steeper than 9 degrees (15.8%) in Gellibrand Marl Narrawaturk Marl & the Yaugher Volcanic Group the unnamed coastal lagoon deposits and lake and swamp deposits; or
- are steeper than 14 degrees (25%) in all other geologies including the spatially extensive Eumeralla Formation (Otway Group); or
- exhibit evidence of possible or past landsliding on or immediately adjacent to the site; or
- where, in the opinion of the Responsible Authority, the Geotechnical Assessment is not sufficient to determine that the development can be carried out in a manner which will not adversely increase the landslip risk to life or property affecting the subject lot or adjoining or nearby land.

A written Landslip Risk Assessment must be prepared by a suitably qualified and experienced Geotechnical Practitioner in accordance with the methodology detailed in the AGS Guidelines 2007. The Landslip Risk Assessment must be for the development proposed in the application and include, to the satisfaction of the Responsible Authority:

- A copy of the Geotechnical Assessment prepared for the subject land and proposal and, if not prepared by the Geotechnical Practitioner preparing the Landslip Risk Assessment, contain a response by the Geotechnical Practitioner preparing the Landslip Risk Assessment that the finding and conclusions of the Geotechnical Assessment are agreed with.
- Contain all the requirements of a Geotechnical Assessment if the need for an LRA is triggered by the LRA slope thresholds above.
- If the Geotechnical Practitioner preparing the Landslip Risk Assessment does not agree with the findings and conclusions of the Geotechnical Assessment for the subject land and proposal, another Geotechnical Assessment must be prepared by that Geotechnical Practitioner.
- An assessment underpinned by field survey and measurements which have been undertaken not more than 12 months prior to the lodgement of the application for a planning permit.
- A full assessment of the risk posed by all reasonably identified geotechnical hazards which have the potential to either individually or cumulatively impact upon people or property on the subject lot or related land, in accordance with the AGS Guidelines 2007.
- A full assessment of the risk posed by future vegetation removal for bushfire protection if undertaken to the maximum extent permissible under the conditions of any planning permit and under permit exemptions in the Planning Scheme, in accordance with the AGS Guidelines 2007.
- A conclusion as to whether the subject lot/s are suitable for the proposed development. This must be in the form of a specific statement that the subject lot/s are suitable, or can be made suitable, for the proposed development and that the subject lot and/or the proposed development can meet the tolerable risk criteria, as defined in this schedule. The report must specify all conditions required to achieve this objective.

7.0 Independent review

31/01/2013 C68

The Responsible Authority may require a Geotechnical Assessment and any Landslip Risk Assessment that has been submitted with an application to be reviewed by an independent Geotechnical Practitioner.

8.0 Transitional requirements

31/01/2013
C68

Any planning permit application that was lodged with Council prior to the approval date does not need to meet the requirements of the new schedule.

9.0 Decision Guidelines

31/01/2013
C68

Before deciding on a planning permit application the Responsible Authority must consider, as appropriate:

- Whether the risk to property and the risk to life measured against the tolerable risk as defined in the AGS Guidelines 2007 is acceptable.
- Geotechnical reports greater than one year old from the time of application will not be accepted unless accompanied by a letter from the Geotechnical Practitioner confirming report conclusions are still applicable.
- Whether the proposed subdivision, building or works or the removal of vegetation can be carried out in a manner which will not increase to an unacceptable level the possibility of landslip affecting the site or adjoining or nearby land.
- The recommendations of the Geotechnical Assessment and any Landslip Risk Assessment and any other information accompanying the application.
- The recommendations of any Independent Review of the Geotechnical Assessment and any Landslip Risk Assessment.
- Whether the proposed removal of vegetation is required to facilitate a permitted use or development of the land, and if there is any practical alternative form of development which would result in less disturbance to the existing vegetation.
- The impact of future vegetation removal for bushfire protection and whether any such vegetation removal would result in an increase to the risk to property and/or the risk to life as measured against the tolerable risk criteria defined in the AGS Guidelines 2007.
- The risks associated with the development requiring ongoing monitoring and maintenance of all mitigation measures.
- The risks associated with non-compliance with any conditions of any permit which may be subsequently issued.
- Effluent disposal considerations including any Environment Protection Authority requirements for on-site disposal in unsewered areas.

10.0 Permit conditions

31/01/2013
C68

Any permit issued must also contain the following condition:

- The approved development must be carried out on the site in accordance with the recommendations of the Geotechnical Assessment (title/date/author) or, where applicable, the Landslip Risk Assessment (title/date/author) or any Geotechnical Practitioner engaged to review those assessments submitted with the application.

11.0 Reference Documents

31/01/2013
C68

- Practice Note Guidelines for Landslide Risk Management 2007, Journal of Australian Geomechanics Society, Vol. 42: No 1, March 2007.
- Commentary on Practice Note Guidelines for Landslide Risk Management 2007, Journal of Australian Geomechanics Society, Vol. 42: No 1, March 2007.
- Guideline for Development of Sites Prone to Landslide Hazard, Final draft submitted to Australian Building Codes Board, prepared by Australian Geomechanics Society, 2004.
- Miner A S & Dalhaus P 2011, Revision of Colac Otway Shire's Erosion Management Overlay, A.S. Miner Geotechnical, Manifold Heights, Victoria, Australia.