--/---Proposed C139bawb

## SCHEDULE TO CLAUSE 44.01 EROSION MANAGEMENT OVERLAY

Shown on the planning scheme map as EMO.

## **BAW BAW LANDSLIP RISK AREAS**

### 1.0

## Erosion management objectives to be achieved

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To ensure development manages the risk to life and property in areas identified as susceptible to landslip, landslide and slope degradation.

To ensure that applications for development are supported by adequate investigation and documentation of geotechnical and related structural matters.

To ensure that development is designed and carried out in accordance with the recommendations of expert geotechnical risk assessments where appropriate.

## 2.0

## Statement of risk

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Parts of Baw Baw Shire are susceptible to landslip, landslide and slope degradation. The type of landslides that have previously occurred in the Shire have presented a risk to life and property.

# 3.0 Permit requirement

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A permit is not required to construct or carry out any of the following buildings or works:

- Buildings and works where the natural ground level of the impacted area has an average slope less than 20 per cent (1 in 5). The impacted area includes all lands where soil is disturbed and a 50m radius from the site of soil disturbance.
- Earthworks, either separately or as part of a buildings or works proposal, provided:
  - No cut or fill greater than 1 metre in height or depth is required.
  - No change is made to constructed drainage or fixed irrigation systems.
- Removal or destruction of any vegetation, either separately or as part of a buildings or works proposal, provided it is:
  - Having a trunk circumference less than 0.5 metres at one metre above the ground; or
  - Within 2 metres of a building; or
  - Dead and the roots below ground level are retained.
- Pruning provided it is for the purpose of improving a tree or shrub's health or structural stability in accordance with normal horticultural practice for the species involved.
- Extensions to an existing building provided the extension does not exceed 20 square metres.
- Non-habitable structures ancillary to a dwelling, including carports and garden sheds, provided:
  - The structure is not constructed of bricks, concrete, concrete blocks or other similar heavy materials);
  - The structure does not exceed 100 square metres.
- A permeable, uncovered deck, a verandah or an open sided pergola provided:
  - There is no increase in the ground surface area covered by the deck, verandah or open sided pergola does not exceed 20 square metres.
- A building associated with agricultural activities provided:
  - The building is constructed of lightweight, flexible materials (not bricks, concrete blocks or similar).

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- The ground surface area occupied by the structure does not exceed 100 square metres.
- The development would not result in more than two such structures existing on the subject property.
- A retaining wall that:
  - Does not exceed one metre in height.
  - Does not provide landslip protection for any adjoining land.
- Landscaping water features provided it does not entail ponding of more than 500 litres of water.

# 4.0 Application requirements

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The following application requirements apply to an application for a permit under Clause 44.01, in addition to those specified in Clause 44.01 and elsewhere in the scheme and must accompany an application, as appropriate, to the satisfaction of the responsible authority:

- Site and Surrounds Plans.
- A written Geotechnical Assessment of the proposed development in relation to existing conditions.
- A written Landslip Risk Assessment of the proposed development in relation to existing conditions, if the Geotechnical Assessment or other landform data, indicates natural slopes on or immediately adjacent to the subject lot which:
  - 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 Geotechnical Declaration and Verification Form.

The responsible authority may waive the requirement of a full Geotechnical Assessment, if a suitably qualified and experienced geotechnical practitioner demonstrates to the satisfaction of the responsible authority that a geotechnical assessment is not relevant to the assessment of the application.

A Geotechnical Assessment, Landslip Risks Assessment and Geotechnical Declaration and Verification Form is not required to accompany the following applications:

- An application to subdivide land where each proposed lot contains an existing dwelling.
- An application to subdivide land in a rural zone into two lots.

The responsible authority may require a Geotechnical Assessment and/or a Landslip Risk Assessment that has been submitted with an application, to be reviewed by an independent geotechnical practitioner at the applicant's cost.

# Site and Surrounds Plans

Site and surrounds plans must be drawn to scale, dimensioned and based on survey, and show:

- The proposed development, including a site plan and building elevations, and 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, 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.

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## **Geotechnical Assessment**

A written Geotechnical Assessment must be prepared or technically verified by a suitably qualified Geotechnical Practitioner and must include, to the satisfaction of the responsible authority:

- Details of the Geotechnical Practitioner and his or her qualifications and experience.
- Details of the date and methodology of the geotechnical assessment undertaken.
- A detailed site description, including Site assessment plans and cross-sections of the subject lot and related land (any land that may be impacted by the proposal) from 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:
  - are steeper than 20 percent; or
  - exhibit evidence of possible or past landsliding on or immediately adjacent to the site.
- A detailed description of any evidence of slope instability.
- Details of all site investigations and any other information used in preparation of the geotechnical report.
- Whether site investigation requires subsurface investigation that 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.
- A conclusion which:
  - Is supported by the data and all stated assumptions contained in the assessment and is capable
    of being verified by a peer review.
  - States whether or not a Landslip Risk Assessment is required.
  - Where it is considered that a Landslip Risk Assessment is not required, states 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.
  - Provides justification, including any necessary calculations, for the conclusion.
  - States whether or not the development should only be approved subject to conditions and, if so, states recommendations of what conditions should be required, including but without limitation conditions relating to:
    - The determination of appropriate footing levels and foundation materials and in any structural works, including all footings and retaining walls.
    - The location of and depth 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.

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- 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 purposes.

# Landslip Risk Assessment

A written Landslip Risk Assessment must, to the satisfaction of the responsible authority:

- Be completed by a Geotechnical Practitioner.
- Contain a copy of or include 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 findings and conclusions of the Geotechnical Assessment are agreed with.
- 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.
- Be based on field survey and measurements which have been undertaken not more than 12 months prior to lodgement of the application for planning permit or if field survey measurements are older than 12 months a signed statement from the geotechnical practitioner that the measurements remain valid.
- Include 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. This assessment must be in accordance with AGS Guidelines
  2007.
- Contain a conclusion as to whether the subject lot is suitable for the proposed development. This must be in the form of a specific statement that the subject lot is 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 outcome.

At all times, any decision regarding the degree of investigations and assessment required must be dictated by the consideration of risk to life and property.

# 5.0 Decision guidelines

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The following decision guidelines apply to an application for a permit under Clause 44.01, in addition to those specified in Clause 44.01 and elsewhere in the scheme which must be considered, as appropriate, by the responsible authority:

- The recommendations of the Geotechnical Assessment, any Landslip Risk Assessment and any other information accompanying the application.
- The advice of any Geotechnical Practitioner who has reviewed the application (if applicable).
- The risks to life and property, as determined by an appropriately qualified and experience Geotechnical practitioner, associated with non-compliance with any conditions of any permit which may be subsequently issued.