FRANKSTON PLANNING SCHEME
AMENDMENT C46
OLIVERS HILL AND SWEETWATER CREEK EROSION MANAGEMENT OVERLAY AND LOT RESTRUCTURE PLAN

PANEL REPORT

APRIL 2010

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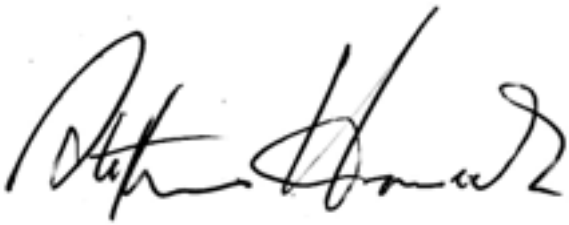
John Glossop, Chair



Stephen Hancock, Member

APRIL 2010

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1. Overview

This is the report of the Panel appointed pursuant to Sections 153 and 155 of the *Planning and Environment Act 1987* to hear and consider submissions in respect of Amendment C46 to the Frankston Planning Scheme.

The Amendment	Frankston C46
Purpose of Amendment	The amendment seeks to: ▪ introduce an Erosion Management Overlay on a permanent basis; and to provide planning controls for buildings and works and the removal of native vegetation. This will replace interim controls that were introduced through Amendment C45 in December 2008; ▪ introduce three schedules to the Erosion Management Overlay (Schedules 1, 2 and 3) to include exemptions for minor buildings and works, for the removal of non native vegetation and to require a geotechnical assessment to be submitted with a planning permit application; ▪ update the Municipal Strategic Statement at Clause 21.04 'Housing' to reflect the application of an Erosion Management Overlay at Olivers Hill and Sweetwater Creek, Frankston South; ▪ amend the Schedule to Clause 52.03, Specific Sites and Exclusions, to facilitate the re-subdivision of existing titles at Clyde Court and Whitecliffe Avenue, Frankston South; and ▪ amend the Schedule to Clause 81.01 to include Olivers Hill Lot Restructuring Plan – April 2008, as an Incorporated Document into the Frankston Planning Scheme.
The Proponent	Frankston City Council and landowners in Whitecliffe Avenue and Clyde Court

Planning Authority	Frankston City Council
Exhibition	18 May to 22 June 2009
The Panel	John Glossop (Chair) and Stephen Hancock (Member)
Panel Hearings	A Directions Hearing was undertaken at the offices of the Frankston City Council on 29 January 2010. Submitters were advised of this hearing in writing by way of letter dated 8 January 2010.
Site inspections	The Panel conducted two site inspections these being an initial unaccompanied reconnaissance and familiarisation inspection by road on 29th January (Mr Hancock only) and an accompanied inspection by road and on foot on 25 February 2010.
Appearances	Mr John Eichler, Strategic Planning Coordinator, City of Frankston calling Mr Scott Emmett, Civiltest Pty Ltd. Mr Michael Caraher, landowner. Ms Ginevra Hosking speaking on her own behalf and Anthony Nash. Both are landowners. Ms Joanne Lardner of Counsel calling Mr Warren Peck of AMC Consultants. Ms Lardner spoke on behalf of Messrs. Gale, Hardie, Shuurman and Nash and Ms Hosking[1]. Ms J Hattingh, appearing on behalf of the Action Sweetwater Creek Inc.
Submissions	Landowners Melbourne Water South East Water Department of Sustainability and Environment Action Sweetwater Creek Inc. CFA

[1] Messrs. Gosstray and de Haan were also listed in Ms Lardner's submission. Neither had lodged submissions to the amendment or lodged a request to be heard form. The Panel was not asked to join them.

2. Executive summary

This amendment has two distinct but inter-connected limbs: firstly, the application of an Erosion Management Overlay ('EMO') to two areas of South Frankston (Olivers Hill and Sweetwater Creek) and secondly, the application of a restructure plan affecting land in Olivers Hill. The EMO and restructure plan are connected because both controls affect land that is, in one way or another, susceptible to landslip. Secondly, the controls are connected because it is considered inappropriate to proceed with the restructure plan in the absence of a further control (the EMO) to ensure that future development responds to this susceptibility.

The Council has undertaken some detailed background work to demonstrate to its satisfaction that the land was susceptible to landslip and had developed three schedules to the EMO to reflect this risk. For their part, many objecting landowners accepted that there was a risk but led their own evidence to suggest that the Council had over-stated this and that the proposed planning controls were too onerous as a consequence.

The Panel was greatly assisted by the evidence of Mr Emmett (for the Council) and Mr Peck (for the landowners) and by the competent submissions and assistance provided by Mr Eichler (for the Council) and Ms Lardner of Counsel (acting for some of the landowners). Other submitters, notably Ms Hattingh for the Action Sweetwater Inc. (a community group involved in the management of the Sweetwater Creek) also assisted the Panel in coming to grips with this strikingly beautiful part of Melbourne.

In summary, the Panel has formed the following conclusions:

- There is sufficient strategic justification for the proposed controls. The aim of the controls should be to ensure that new development occurs with the knowledge of the geotechnical history of the land.
- The Council's preliminary report justifies the need to apply the EMO to both Olivers Hill and Sweetwater Creek. Having said this, the research is limited in so far as it does not justify landslide hazard or risk. This is important because it means that Council's application of terms such as high and medium risk cannot be substantiated. The Panel's view is that the evidence presented to it suggests that the risk of landslip is much lower than suggested by the amendment.
- Having said this, the Panel does not consider that the mitigation works undertaken by certain landowners is sufficient on its own to justify the

removal of the overlay. We also consider that the effects of coastal erosion to be a factor in this judgement. The Panel is also concerned to see the Council take an active role in collecting and analysing existing data across the study area. This will need the support of local landowners, some of whom are already collecting data on their land. Although we are in no position to 'require' this occur, such a process of data capture is clearly in the community's interests.

- The requirements of the overlay are too onerous based on the likely level of risk. For instance, there is no need for a mandatory peer review process for applications (as required by EMO2) or for any geotechnical assessment to be undertaken in accordance with the March 2007 Australian Geomechanics Society report in the land on the flatter land nearest the coast. Both requirements are simply unreasonable having regard to the nature of the risk.
- Given the above, the Panel recommends that the Council adopt Amendment C46 to the Frankston Planning Scheme subject to the following matters:
    - EMO1 and EMO2 should be combined into a single control. The boundaries of EMO3 should remain as exhibited.
    - The schedules to EMO1 and EMO3 should be redrafted to reflect the nature of the risk. A copy of these amended schedules is attached in Appendix B. EMO1 is redrafted to reflect the lower level of risk associated with this land. EMO2 (formerly EMO3) is retained almost as exhibited.
    - The Council and landowners work together to compile data on the depth of water tables, landslip and so on. This data should be collated by the Council and made available (in regulated and appropriate circumstances) to landowners seeking to develop their land.

3. Background

3.1 The Amendment

The amendment has been prepared by the Frankston City Council, which is the planning authority for this amendment.

The amendment has been made at the request of the Frankston City Council and owners of land at Whitecliffe Avenue and Clyde Court, Frankston South.

The proposed amendment seeks to apply the Erosion Management Overlay to a section of land at Olivers Hill and along a stretch of the Sweetwater Creek, Frankston South. Three (3) schedules to the overlay are proposed that require specific information to be submitted with any application for planning permit. Various other consequential changes to the Frankston Planning Scheme are also proposed.

The amendment also implements the 'Olivers Hill Lot Restructuring Plan – April 2008', which is proposed to be added to the list of Incorporated Documents. This will allow for some additional subdivision to occur in the Olivers Hill area.

3.2 Planning assessment

The background work undertaken by the Council to justify this amendment comprises the Olivers Hill and Sweetwater Geotechnical Risk Study, 2006 and previous submissions to Amendment C31.

The Civiltest report found that the two known major landslides in the Olivers Hill study area, namely Olivers Hill South Slip (OHSS) and the Olivers Hill North Slip (OHNS) are currently active and have movements in the range of 5-10mm a year, generally posing risks to property. Smaller landslides still occur along the coastal section of Daveys Bay, which pose risks to both people and property.

The report recommends the introduction of an Erosion Management Overlay for both the Olivers Hill and Sweetwater Creek areas to protect each area from inappropriate development and to reduce the risk of future landslip.

Further to this, the report recommends continuing investigations into the actual movement present on the Olivers Hill South Slip. An assessment of

the groundwater present and its source is also required if ground movements are to be controlled in this area.

3.3 The Panel

This Panel was appointed under delegation on 8 December 2009 pursuant to Section 153 and 155 of the Act to hear and consider submissions in respect of the Amendment.

The Panel consisted of:

- Mr John Glossop, Chairman; and
- Mr Stephen Hancock, Member.

Procedural issues

A Directions Hearing was undertaken at the offices of the Frankston City Council on 29 January 2010. Submitters were advised of this hearing in writing by way of letter dated 8 January 2010. The submitters were directed to complete a Request to be Heard form if they wished to be heard at the hearing. Nine (9) Request to be Heard forms were received from submitters.

Hearings and inspections

A Directions Hearing was held on 29 January 2010 at the Frankston City Council Offices.

The Panel Hearing was held between 23 – 25 February 2010 at the Frankston City Council (Day 1) and the Brotherhood of St Laurence Building on High Street, Frankston (Days 2 and 3).

The Panel inspected the site and surrounding areas, making one unaccompanied visit on the day of the Directions Hearing and an accompanied inspection on 25 February.

Exhibition

The amendment was exhibited between 18 May and 22 June 2009. Notices were placed in the Government Gazette on 19 May 2009.

An information leaflet was sent to all owners and occupiers in the area of the amendment to provide them with an update about the process on 15 May 2009. A copy of the notice was displayed in the local newspaper on 18 May.

Amendment documentation was also displayed at the Council offices.

Submissions

The Panel has considered all written submissions and all material presented to it in connection with this matter.

Four submissions were received from referral authorities and fifteen from local residents, 2 of which were received late. The Department of Sustainability and Environment, Melbourne Water and South East Water did not object to the amendment. CFA Westernport wanted a statement included on the plan that all Schedules to the EMO require applicants to meet the requirements of Clause 52.17-6 (in relation to native vegetation exemptions)[2].

A list of all written submissions to the Amendment is included in the following table.

Table 1 List of submitters

Submitter	Organisation (if any)
Rod Warren	Department of Sustainability and Environment, Port Phillip Region
Darren Woodward	South East Water
Ann Maudsley	Melbourne Water
Angus Mair	CFA Westernport
Richard G Umbers	Peninsula Planning Consultants Pty Ltd
Jenny Hattingh	Honorary Secretary, Action Sweetwater Creek Inc.
E. Ann & R. Graham	R G Nominees Pty Ltd
Warren Peck	AMC Consultants
Geoff Hardie	N/A
Susan Flynn	N/A
Peter and Greta Wills	N/A
Neal Gale	N/A
Susan Flynn	N/A
William Cooper	N/A
R. & P. Watson	N/A
Gail Cleary	N/A
Michael & Judy Caraher	N/A
Rob & Les Shuurman	N/A
G. Hosking & A. Nash	N/A

[2] On this point, the Panel agrees with the Council's response to this matter set out in Appendix 4 of its submission to the Panel.

4. What is proposed?

4.1 The subject site and surrounds

The proposed EMO (Schedules 1 & 2) affects land generally bounded by Port Phillip Bay to the north and west, Yamala Drive and Nepean Highway to the east and Gulls Way to the south. Council's submission to the Panel describes EMO1 as an area of 'moderate landslide risk' and EMO2 as an area of 'high to very high landslide risk' (page 2).

Proposed Schedule 3 to the EMO generally affects land abutting the Sweetwater Creek between Nepean Highway (to the north) and Brighton Street (to the south) as shown on the map below:

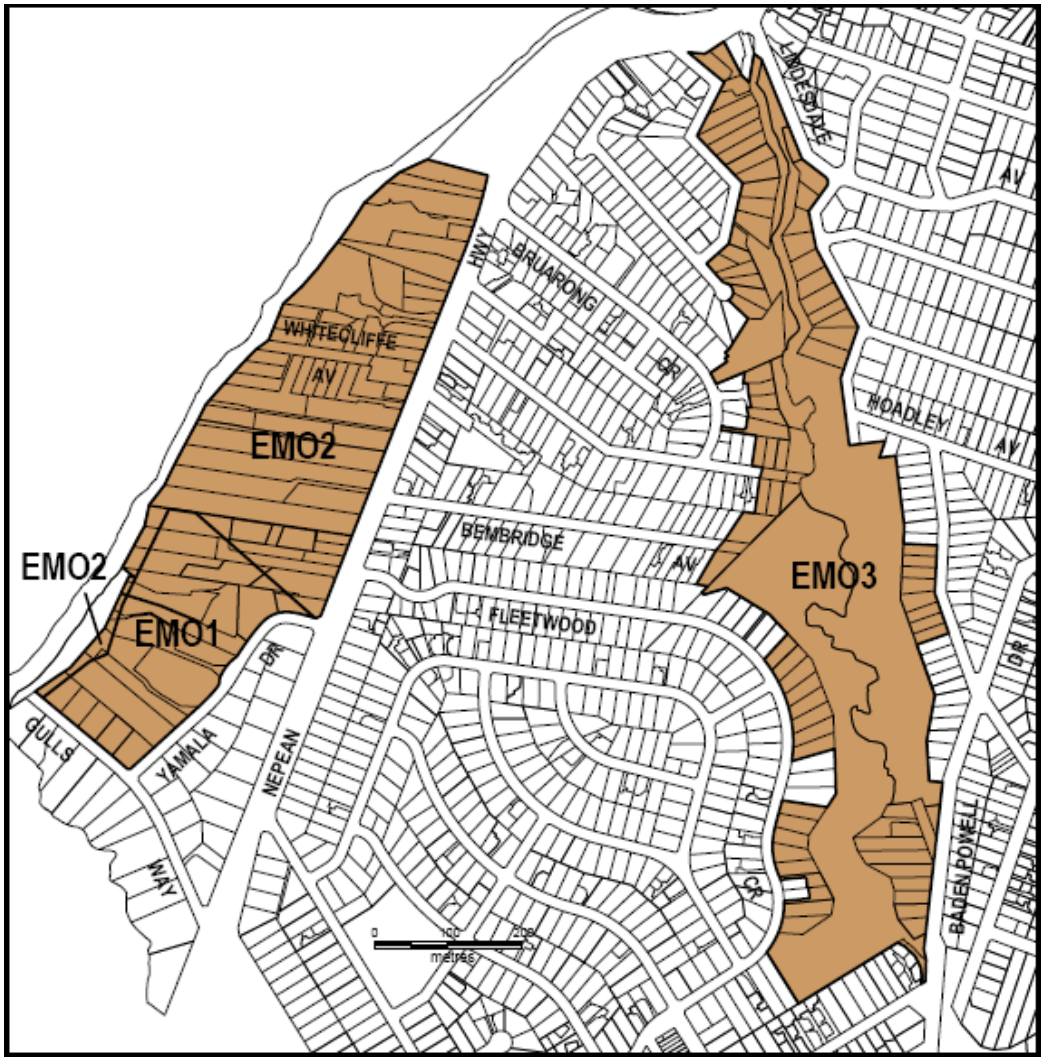

Figure 1 Planning Scheme Maps 4EMO & 7EMO (subject land highlighted in brown)

The land is generally developed for residential purposes consistent with its zoning, although there are some vacant parcels throughout. The Sweetwater Creek environs contain walking tracks to and along the creek as well as large stands of mainly native trees and other vegetation. It is pleasant, bushland environment. Council's submission to the Panel describes this as an area of 'moderate landslide risk along the lower reaches of Sweetwater Creek' (2).

The Olivers Hill Lot Restructuring Plan affects land at Clyde Court and Whitecliffe Avenue, Frankston South. The plan will be included in the Planning Scheme as an Incorporated Document and will enable applications to be considered to re-subdivide lots of less than 2,500 square metres in accordance with the plan.

Copies of the Restructure Plans are set out on the following pages.

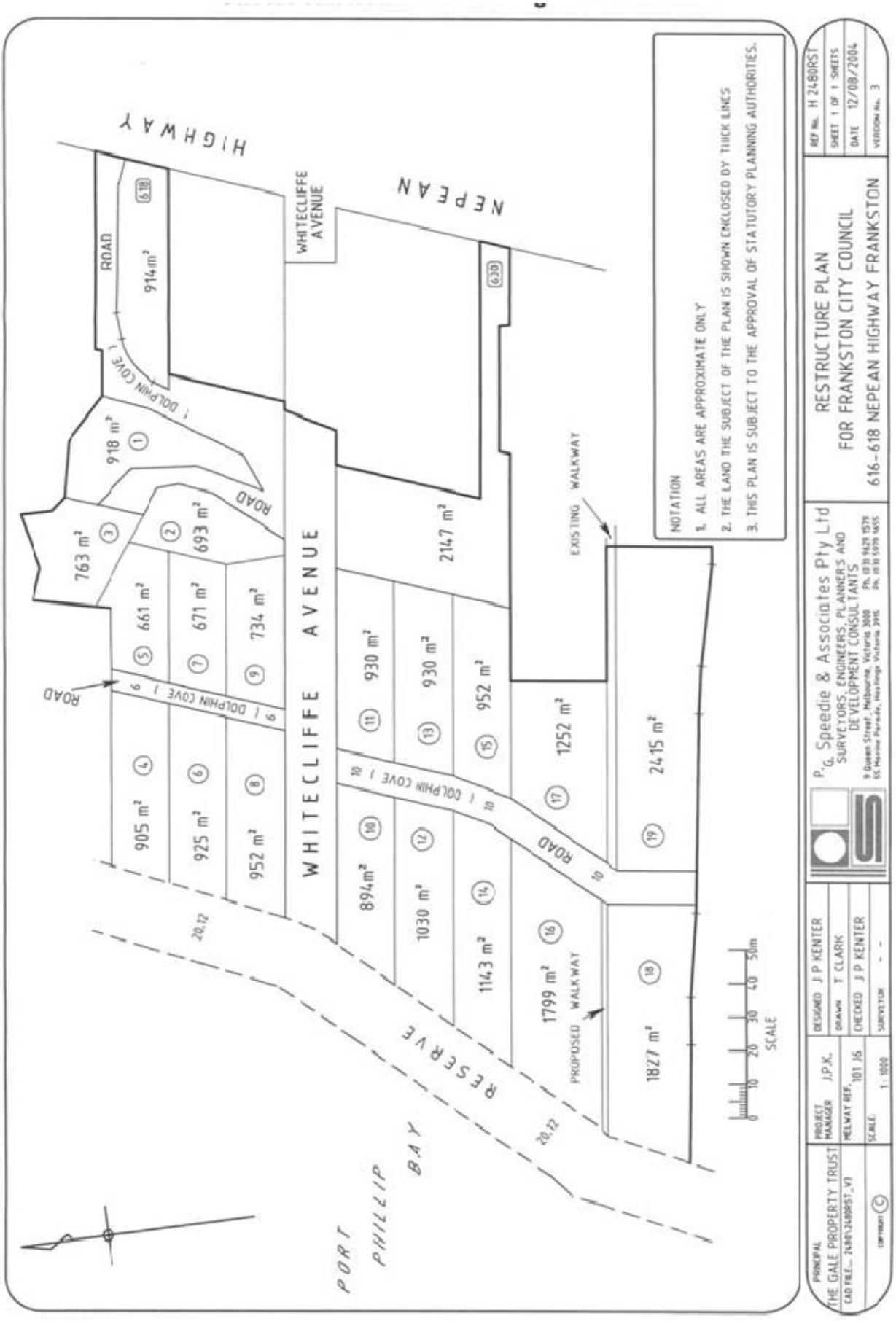

Figure 2 Olivers Hill Lot Restructuring Plan Sheet 1

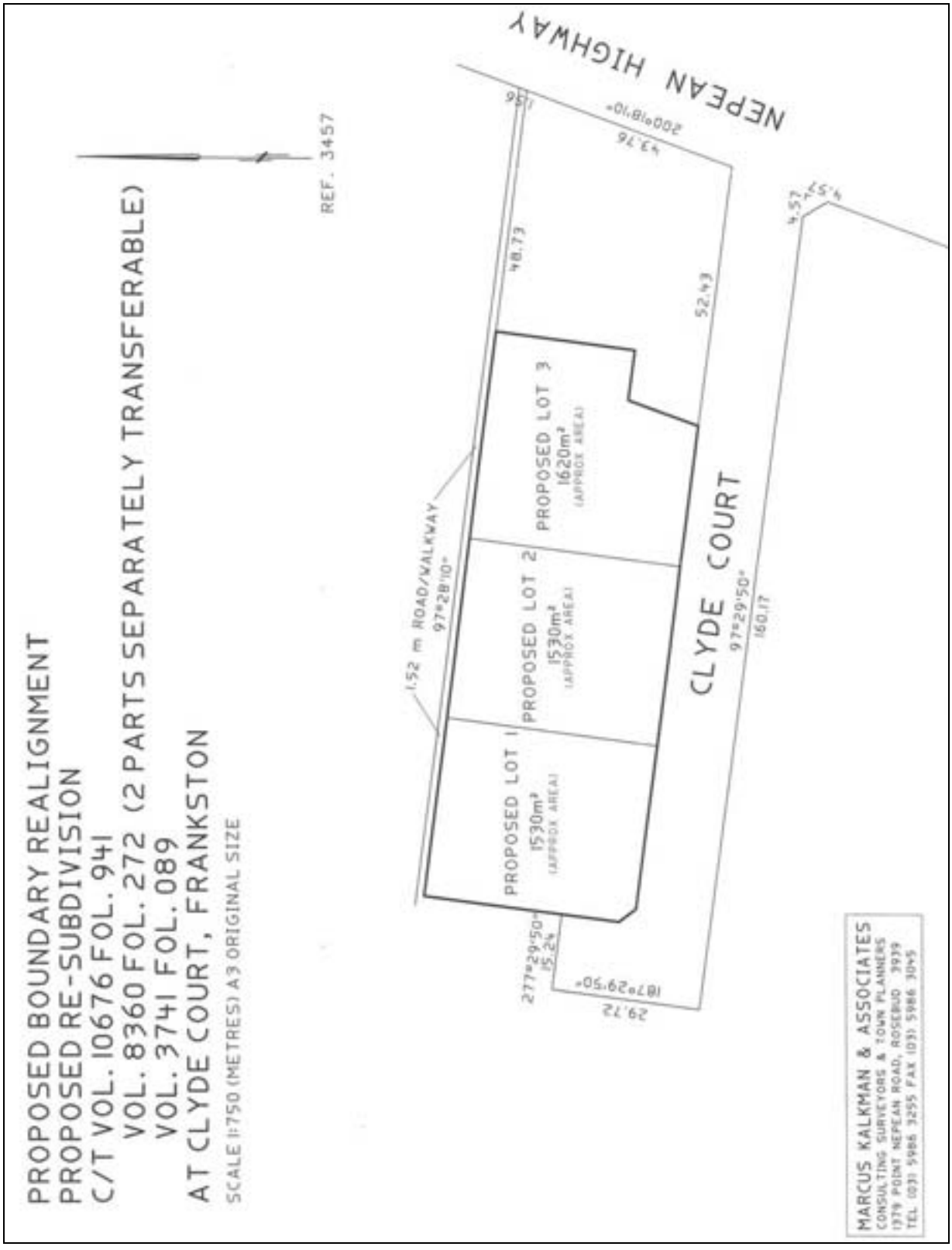

Figure 3 Olivers Hill Lot Restructuring Plan Sheet 2

4.2 Background to the proposal

This matter was deferred at the 17 August, 2009 Planning and Submissions Committee meeting to allow further briefings to Councillors. These occurred in late September and late October; the latter was to address technical issues raised at a meeting held with submitters in late September.

Amendment C46 arises from decisions made by Council after considering the recommendations of the Olivers Hill and Sweetwater Geotechnical Risk Study, 2006 and a report on submissions to former Amendment C31, which proposed to facilitate the restructuring of titles at Clyde Court and Whitecliffe Avenue, Frankston South.

In essence, the Council decided to seek interim Erosion Management Overlay controls for the Olivers Hill area (what it considered to be the area of highest landslip risk), abandon Amendment C31 and exhibit an amendment to introduce permanent EMO controls at Olivers Hill and Sweetwater Creek. This process was also the catalyst to re-introduce the restructure that formed part of Amendment C31.

Interim EMO controls for Olivers Hill were introduced by the Planning Minister in December 2008 as part of Amendment C45. Amendment C46 proposes to introduce permanent EMO controls for Olivers Hill; introduce EMO controls along the lower section of Sweetwater Creek, downstream of Baden Powell Drive; and facilitate the restructuring of titles at Clyde Court and Whitecliffe Avenue.

The EMO controls require a permit for many buildings and works and require that a geotechnical report and related information be submitted with any application.

The Restructure Plan controls will facilitate the restructuring of lots and allow the re-alignment of title boundaries at Clyde Court and Whitecliffe Avenue, Frankston South.

5. Planning context

This section of the Report considers the policy context for the Amendment and focuses on strategic and policy issues. It assesses how the Amendment meets the objectives of the Planning Scheme. The following sections of this Report include a brief appraisal of the State Planning Policy Framework (SPPF), the Municipal Strategic Statement (MSS) and Local Planning Policy Framework (LPPF) and the appropriate zone and overlay controls.

There are only a few planning policies that are applicable to the consideration of the Amendment. The submissions from Council set out the details of the relevant policies and the Panel notes that other submitters did not take issue with what was put forward in this regard. Accordingly, the Panel does not propose to set out the details of all the policies that may be relevant; rather, the Panel will refer to them as appropriate.

5.1 Policy framework

5.1.1 State Planning Policy Framework

The following clauses within the State Planning Policy Framework are relevant to this amendment:

- Clause 11 'Introduction, goals and principles';
- Clause 12 'Metropolitan development';
- Clause 14 'Settlement'; and
- Clause 15 'Environment'.

The following extracts of the SPPF are particularly relevant to the proposal:

Clause 11.03 'Principles of land use and development planning' seeks to meet the various expectations of society in terms of land for settlement, protection of the environment, economic wellbeing, social needs and proper management of resources and infrastructure.

Clause 12 'Metropolitan development' seeks to implement Melbourne 2030 through the operation of planning schemes. Relevant clauses include clause 12.02 'better management of metropolitan growth' and clause 12.05 'a great place to be'.

Clause 14 'Settlement' seeks to ensure a sufficient supply of land is available for residential, commercial, industrial, recreational, institutional and other public uses. Development of urban areas should be orderly.

Clause 15.08 'Coastal areas' seeks to assist in the protection and enhancement of natural ecosystems and landscapes of the coastal, estuarine and marine environment.

Clause 15.09 'Conservation of native flora and fauna' seeks to assist in the protection and conservation of biodiversity, including native vegetation retention and provision of habitats for native plants and animals; and control of pest plants and animals.

5.1.2 Local Planning Policy Framework

Municipal Strategic Statement

Both the MSS and local planning policies have limited relevance to the proposed amendment.

21.01 Municipal profile

At sub-clause 21.01-8 'Physical assets', the policy provides the following:

> *The City's golden coastline, Kananook Creek, Mt Eliza, Olivers Hill, Seaford Wetlands and its open plains and undulating hinterland provide Frankston with a physical form that is varied and attractive. Its natural features and major transportation routes have influenced the City's built form.*

21.04 Housing is relevant to this proposal in so far as the land affected is mostly residential. This clause provides an overview of issues relating to housing within the municipality. The clause refers to some geologically unstable sites in Frankston's residential areas and observes that the sensitivity and capabilities of those sites need to be addressed when development proposals are prepared.

The amendment will update the clause to reflect the application of an Erosion Management Overlay at Olivers Hill and Sweetwater Creek, Frankston South.

5.2 Planning scheme provisions

5.2.1 Zones

The land is largely zoned Residential 1 but also incorporates the land surrounding the Sweetwater Creek which is zoned Public Conservation and Recreation.

The majority of land surrounding the sites is zoned Residential 1. At Olivers Hill, comprises Port Phillip Bay is to the west and north-west and is zoned Public Conservation and Recreation and also Special Use Zone 3. Road Zone Category 1 land abuts the subject site (Nepean Highway) to the east of Whitecliffe Avenue.

5.2.2 Overlays

Given the extent of land, many overlays affect the land. On the land located between Nepean Highway and Port Phillip Bay, the following overlays generally apply:

- Design and Development Overlay (DDO2);
- Erosion Management Overlay (EMO1[3]);
- Significant Landscape Overlay (SLO3);
- Wildfire Management Overlay (WMO); and
- Heritage Overlay to some individual sites particularly along Yamala Drive.

On the land surrounding the Sweetwater Creek, the following overlays generally apply:

- Significant Landscape Overlay (SLO4);
- Design and Development Overlay (DDO6);
- Wildfire Management Overlay (WMO);
- Erosion Management Overlay (EMO1);
- Environmental Significance Overlay (ESO1);
- Public Acquisition Overlay (PAO3); and
- Heritage Overlay to some individual sites.

[3] This is an interim control

5.2.3 Particular provisions

The following particular provision is relevant to this proposal:

- Clause 52.03 'Specific sites and exclusions'. The Schedule to this provision will be updated to facilitate the re-subdivision of existing titles at Clyde Court and Whitecliffe Avenue, Frankston South.

5.2.4 General provisions

The following general provision is relevant to this proposal:

- Clause 61.05 'Effect of this scheme'.

5.2.5 Incorporated documents

The following clause is relevant to this proposal:

- Clause 81.01 'Table of documents incorporated in this scheme'. The Schedule will be updated to include 'Olivers Hill Lot Restructuring Plan – April 2008' as an Incorporated Document.

6. Identification of issues

6.1 What are the issues?

The proposal will facilitate the application of new schedules to the Erosion Management Overlay at Olivers Hill and Sweetwater Creek and the restructuring of inappropriate subdivisions at Clyde Court and Whitecliffe Avenue, Frankston South.

The schedule will require a Geotechnical Report and in some cases a Peer Review of that report to be prepared for permit applications for buildings and works at the proponent's cost. The amendment seeks to reduce the Council's liability in the event of landslip and erosion on these environmentally significant areas and to ensure that land is developed in a manner consistent with the area's environmental sensitivity.

The submissions and evidence to the amendment provided a mix of views to the application of the proposed EMO and that of the Restructure Plan for Clyde Court and Whitecliffe Avenue. The focus of these submissions is whether the EMO is appropriate, whether it has been applied to the right land and whether the amendment will achieve what it sets out to do.

There was debate among some submitters as to the appropriateness of the Restructure Plan and whether it will assist in the protection of the environment and access to the bay. Some submitters were also critical of it in terms of whether new development should be encouraged here, having regard to considerations of landscape character and amenity.

6.2 Summary of issues

Issues raised in submissions

From the submissions to the Amendment, the Panel identified a number of key issues that need to be addressed. These can be summarised as follows:

- the controls are unwarranted;
- the risk descriptions cannot be justified on the evidence;
- the amendment will result in time delays and added costs to development;
- local drainage should be improved;
- the issue of coastal erosion should be addressed;

- the extent of peer review should be better defined or else there is no need for such a review;
- the amendment will result in most buildings and works needing a permit;
- the time limit for restructuring titles is impractical;
- the development of the restructured lots will result in buildings and works that will have an impact on the area's landscape character and amenity; and
- larger lots should be required through lot restructuring.

Issues from the Strategic Assessment Guidelines

The purpose of the Strategic Assessment Guidelines is to provide a consistent framework for the evaluation of a proposed Planning Scheme Amendment and the outcomes it produces.

The Guidelines require the Panel to consider:

- Is the amendment necessary?;
- How does the amendment implement the objectives of planning in Victoria?;
- How does the amendment address the environmental effects and any relevant social and economic effects?;
- Does the amendment comply with the requirements of any Minister's Direction applicable to the amendment?;
- How does the amendment support or implement the State Planning Policy Framework?;
- How does the amendment support or implement the Local Planning Policy Framework?;
- Does the amendment make proper use of the Victorian Planning Provisions?;
- How does the amendment address the views of any relevant agency?; and
- What impact will the new planning provisions have on the resource and administrative costs of the responsible authority?

The Panel has considered the response to the Strategic Assessment Guidelines included in the exhibited Explanatory Report for the Amendment, together with submissions on the guidelines from Council. The Panel generally endorses Council's response to these issues.

6.3 Issues dealt with in this Report

The Panel considered all written submissions, as well as submissions and evidence presented to it during the Hearing. In addressing the issues raised in those submissions and evidence, the Panel has been assisted by the information provided to it as well as its observations from inspections of specific sites.

This Report deals with the issues under the following headings:

- The requirement of the controls;
- Timing and costs;
- Drainage;
- Coastal erosion;
- Peer review;
- Permit requirements under the Erosion Management Overlay; and
- Restructuring titles, impact of future development and timing.

7. Consideration of the Issues

7.1 Requirement of the Controls

7.1.1 What is the issue?

The proposed Erosion Management Overlay controls fall into three zones, which are referred to as EMO1, 2 and 3. These schedules coincide with areas having geotechnical risks determined by Civiltest in their Stage 1 report of 2006 as being:

- EMO1 on Olivers Hill – Moderate risk;
- EMO2 on Olivers Hill – High to very high risk; and
- EMO3 around the Sweetwater Creek Nature reserve – Moderate risk.

One additional risk zone is defined by Civiltest in their 2006 report. This is a" high risk of rock fall" area. This is included under the EMO2 zone.

The schedules to each of EMO1 and 3 zones include requirements where a permit is required. The permit application must include:

- A geotechnical report prepared by a suitably qualified geotechnical engineer, engineering geologist or geologist with experience in slope stability. The report must include the following:
    - a review of available information on instability, seepage and building distress on the site or upon adjoining land;
    - documentation of existing conditions including buildings and works, vegetation, geological strata, soil and rock exposures, groundwater, evidence of seepage, soil creep and slumping and an assessment of their impact upon the stability of the site;
    - an assessment of the impact of the buildings and work on site stability and recommendations on siting and construction techniques to minimise the risk of soil movement;
    - if appropriate, recommendations on building design and footings;
    - recommendations about the need for any additional investigations, including a landslide risk assessment. Any landslide risk assessment must be undertaken in accordance with Australian Geomechanics Society, Landslide Risk Management, March 2007; and
    - any other report which was prepared in accordance with the recommendations of the geotechnical engineering report.

In respect of EMO2, the schedule is similar in that it requires a geotechnical engineering report as defined for EMO1 and 3 but it also mandates a requirement for any permit application to be accompanied by:

- a landslide risk assessment report prepared in accordance with the Australian Geomechanics Society, Landslide Risk Management, March 2007;
- a risk mitigation and management plan; and
- a peer review of all of the required reports by an independent, suitably qualified geotechnical engineer, engineering geologist or geologist with experience in slope stability.

7.1.2 Discussion

The use of an Erosion Management Overlay for informing responsible authorities and the community and requiring planning permission in certain circumstances is entirely appropriate. That said, this Panel endorses the view of other Panels (and indeed some submitters to this amendment) that the EMO is not entirely suitable to manage this issue. It is a case of 'best fit' and we accept that the EMO is the most suitable VPP control to manage this issue.

Landslide is simply one mechanism of erosion. Other forms of erosion include wave action along coastlines; and removal of soil, sediment and rock matrix along stream bed and banks during periods of high flow. Similarly, erosion can occur from ephemeral and perennial springs destabilising overlying the geological masses from which they emerge; from sheet flow across slopes; and from the impacts of turbulent and high velocity water flows in gullies and channels after rain events.

The evidence presented to the Panel in expert reports and in submissions, as well as the Panel's observations during their guided inspection of the areas proposed for the application of EMO1, 2 and 3, showed all the above forms of erosion to be active to some degree.

7.1.3 The Olivers Hill area

The evidence presented by Council and its consultants, Civiltest Pty Ltd, is consistent in respect to the Olivers Hill area with that of AMC, the consultants for the landowners represented by Ms Lardner (document 22).

Both accept that the Olivers Hill area is recognised as being susceptible to landslip. Both consultants note that landslips have damaged some housing and infrastructure within the last 50 years. Mr Emmett of Civiltest agreed

with the Panel that the present situation is that the area is susceptible to landslip but is presently not active.

The landslip susceptibility and the occurrence of past landslips and ground movement are not disputed by the residents who presented submissions. The nub of their objections concerned the level of landslide risk that the geotechnical conditions now represent, and the distribution of that risk consequent upon the extensive mitigation activities which have been implemented by the landowners represented by Ms Lardner.

Mr Peck's evidence (called by Ms Lardner) questions the validity of the risk assessment methodology used by Civiltest to define the risk and consequently the boundaries of the EMO zones. Further, Mr Peck provided the Panel with extensive evidence from piezometers and inclinometers of landslide mitigation achieved across the properties of landowners represented by Ms Lardner.

The geotechnical implications of the geomorphology of the area are well recognised by the land owners represented by Ms Lardner. These are set out in part in Ms Lardner's submission and specifically in the section of Mr Peck's statement on Slope stability – Olivers Hill Frankston.

In that document, the actions taken by the landholders to mitigate and measure the potential for ongoing land instability are set out. Mr Peck stated that the actions had stabilised about 40% of the area of the Olivers Hill South Slip and that movements in the area are all < 15mm/annum. This velocity is described in the Australian Geomechanics Society Landslide Risk Management (Vol. 42, No 1, March 2007, ('the AGS LRM 2007') as being "Extremely Slow" and being acceptable for construction "With Precautions".

The Panel recognizes Mr Peck's seniority and long term expertise in engineering geology and landslide risk assessment. His evidence and the plans and data he presented were greatly valued.

In his evidence, Mr Peck stated that he considered that the landslip mitigation work undertaken by the land owners would be robust in reducing the geotechnical risk to the properties where this work had been done, irrespective, of the occurrence of increased rainfall or the occurrence of local seismic activity. He noted that the lowering of the water table which had been achieved allowed the landslip debris mass to increase in geotechnical strength and that this increase would be substantially permanent. He also noted that such movement as is still evident is very slow and does not involve the development of significant differential stresses such as might give rise to building or infrastructure damage.

Although the use of special piling to certain buildings in the area has added to their resistance to damage consequential on landslide movement, he pointed out several examples of older properties which had moved significant distances before geotechnical mitigation work was carried out and suffered insignificant damage despite having only shallow strip footings.

The geotechnical mitigation actions by landowners described by Mr Peck include:

- the installation of ground water drains, which have lowered the groundwater levels in their vicinity;
- the development of stormwater runoff collection systems with piped discharge to the shore;
- the installation of groundwater level piezometers, geotechnical inclinometer and survey bench marks, which permit regular measurement of ground movement;
- the grading of hummocky land below the toe of the head scarp to minimize stormwater infiltration to groundwater in the more permeable strata; and
- many reports from the geotechnical engineers and geologists who have caused the above systems to be installed.

The Panel noted that most of the mitigation work referred to by Mr Peck was across the landslide debris slopes where the surface gradients are low away from the head scarp areas. Some of the areas between what Mr Peck referred to as the pre-historic head scarp and the 1971/73 head scarp, include steep slopes and hummocky ground from which there is no surface water drainage.

Rainfall and runoff from the limited catchment upstream of this area (642a to 648 Nepean Highway inclusive and the eastern steep end of 642, 640 and 638 Nepean Highway) will infiltrate to groundwater in either the Baxter (sandstone) Formation or in the basal conglomerates via fractured or fissured Balcombe Clay and /or via fractures in the bedrock granite. Rises in the water table or piezometric pressure in these formations could contribute to down gradient land instability.

Mr Peck commented at the time of the inspection that the development of surface drainage to the east just north of Clyde Court would be desirable in mitigating this risk.

Notably, Mr Carraher (Document 18) denies that drainage from his land is contributory to the hummocky land below the pre-historic head scarp and is concerned that drainage and infrastructure works associated with the Clyde

Court restructure may significantly impact upon the remnant native vegetation and the amenity of the area.

Mr Carraher noted that the 1854 subdivision plan had a "spring" located in the area below his property (Document 17). More precisely, the Panel notes the spring is not specifically located and is termed a "landslip spring". Ms Hosking (Document 19) notes that drainage from the Carraher property has rights to drain to the south towards Clyde Court, but could not confirm that this included all the drainage from the properties along Nepean Highway listed above.

Mr Peck was of the opinion that the elevated land to the western end of Clyde Court (such as around the Hosking /Nash property) appeared likely to be underlain by granite. This was indicated by auger refusal to penetrate at shallow depth (0.4 – 1.4m) below ground level in this area. Consequently he did not believe that this area was likely to be at significant geotechnical risk.

He noted that the 1971/73 head scarp did not traverse beyond this area (AMC report Figure 2). He also noted that in constructing drains on properties to the north of Clyde Court (lot 3 of 642 Nepean Highway), whilst there was landslip debris across the site, it appeared to be stable. He stated his belief that the landslide debris was being held in place by an adjacent buried granite hill to the west. Mr Peck's evidence is that no evidence of movement has been observed in this area despite many inspections extending over 34 years.

The work of the land owners has been supplemented by the Council recently, which has had its consultants install a series of piezometers and inclinometers. These are being monitored to gain an independent record of ground movement and of water table fluctuations as a basis for assessing landslide hazard across the Olivers Hill landslide areas (see Civiltest Pty Ltd – Geological and Geotechnical related evidence of Scott Emmett, BSc (Earth Science) Hons. for Frankston City Council (Appendix 4).

Both Mr Emmett and Mr Peck recognise that coastal erosion is a continuing concern to land stability along with issues of stormwater and septic tank drainage. This includes some uncollected drainage from properties to the east of Nepean Highway (as is evidenced from the Council's Olivers Hill Drains plan (Document 11)).

The debris slide geomorphology and the accompanying head scarps of the Olivers Hill North and South landslip areas, represent landslip areas with potential, if not actual, movement direction to the north west to satisfy the down gradient mass removal due to coastal erosion. Evidence of failures along the cliffs also exist resulting probably from a combination of ephemeral

spring activity exacerbating boulder destabilisation by rainfall runoff and wind and wave erosion along the exposed coast.

The Panel regrets that the large amount of data in the hands of both the Council and the landholders has not been consolidated in the Olivers Hill land slip areas. This data was consequently not available to Civiltest for their Stage 1 report of 2006. The monitoring of the piezometers and inclinometers installed about 18 months ago for the Council which was presented by Emmett in the Stage 2 Civiltest report is, however, more or less consistent with the results from similar monitoring conducted by the landowners and their consultants.

Mapping of the subsurface profile of the granite which forms the bedrock would be very valuable to all landholders in the area, as would be the mapping of the thickness and variations in the lithology of:

- basal conglomerates;
- Balcombe Clay;
- Marina Cove Sandstone and the Baxter Formation; and
- landslip debris.

It is recommended by the Panel that the cooperation of all the stakeholders be sought with the objective of consolidating this data for analysis by a Council appointed geotechnical expert to determine the degree of landslip susceptibility and hazards as defined in the AGS Guideline for Landslide Susceptibility, Hazard and Risk Zoning.

It is clear to the Panel that there is a need for some level of control to be in place to ensure that future development, in the Olivers Hill area in particular, is undertaken in a manner which ensures that the geotechnical conditions of the substrate do not represent an unacceptable risk to the built environment; to infrastructure or to residents or the public.

> **The Panel recommends that all stakeholders work together to consolidate landslip data for analysis by a Council appointed geotechnical expert to determine the degree of landslip susceptibility and hazards as defined in the AGS Guideline for Landslide Susceptibility, Hazard and Risk Zoning.**

7.1.4 Land adjoining the Sweetwater Creek Nature Reserve

The susceptibility to landslip for existing and new urban development abutting the boundary of the Sweetwater Creek Nature Reserve is not disputed. The evidence presented by Council is not disputed by the evidence of others.

The steeper slope upstream areas have decomposed granite as the dominant substrate to shallow soils. This interface appears to be susceptible to soil slips on the steep slopes where undercutting of the stream bed and banks occur after occasional high intensity flows generated by rapid runoff from the urban area within the catchments surrounding the Sweetwater Creek Nature Reserve and the catchments above Baden Powell Drive extending up to the Frankston Reservoir.

The steeper slope, downstream areas of Sweetwater Creek have Tertiary aged sedimentary strata, including clays as the substrate. These are overlain by unconsolidated sandy sediments, which accept rainfall and some runoff infiltration which in turn activates headwardly eroding springs at both the interfaces with the substrate and with the granites where the latter are exposed on the valley walls. The consequences of these springs are gullies, which add to issues of turbulent gully erosion consequent upon some un-controlled urban and household drainage.

The submission of Jenny Hattingh on behalf of the Action Sweetwater Creek Inc. (Document 35) presented plans and photographs of works undertaken by Melbourne Water, which has sought to reduce the magnitude of erosion along the creek channel. This work has included realigning the channel, installing grade control and bank protection structures and gabion bank protections, and piped outlets beneath Nepean Highway.

Some form of planning control here is accepted by the Panel as being required in order that new development takes place with recognition of the geotechnical risks deriving from the landslide susceptibility of the land adjacent to the Sweetwater Creek Nature reserve. In this regard, the controls set out in the schedule to the proposed EMO3 seem reasonable.

7.2 Timing and Costs

7.2.1 General

While the provision of adequate drainage is referred to as being critical in minimising erosion and in minimising slope stability issues, drainage in both the OHSS and in the land adjacent to the Sweetwater Creek Nature Reserve is not comprehensively under control. Council commented that in the OHSS area many houses were still serviced by septic tanks because the water company servicing the area did not have the power to make connection mandatory. Equally, concern was expressed about adequacy of surface and subsurface drainage from east of Nepean Highway possibly affecting the groundwater levels in the slopes above the pre-historic head scarp of the OHSS. Mr Hardie also raised the need for drainage of hummocky ground.

The submitters from the area of the OHSS covered by EMO1 and 2 expressed considerable concern over the time and cost that would be involved in meeting the requirements of the EMO. In particular, there was concern that the geotechnical risks of the area were overstated and that the requirements of the EMO, which emerged from the Civiltest Stage 1 Geotechnical Risk Study (2006), were more than could be justified by the information that many had assembled through their own initiatives on their own properties.

The Application Requirements of the proposed EMOs have been stated before, but the essential differences between the schedules for EMO1 and 3 and EMO2, is the requirement for a geotechnical report with any recommendations for a landslide risk assessment for the former, compared to the mandatory requirement for a peer reviewed landslide risk assessment in accordance with the AGS LRM 2007 document for the latter.

The Civiltest 2006 report preceded the introduction of the AGS LRM 2007. This protocol was an Application Requirement for EMO1, 2 and 3. This protocol is a very rigorous process and extends well beyond the levels of investigation undertaken by either the Council or any individual landowner.

The need for these requirements is driven entirely by the Civiltest perception of landslide risk as set out in the Stage 1 report (2006). This application requirement, on the basis of the totality of the data presented to the Panel, appears to be unjustifiable for at least a large portion of the OHSS, especially land west of the toe of the 1971/73 head scarp.

The Panel notes that the Council had adopted a 1993 report entitled Frankston Coastal Management Study (CMS) prepared by a consortium of consultants including Dennis Price & Miller Pty Ltd, D J Douglas & Partners, Steedman Science & Engineering Context Pty Ltd. This report was a reference listed in the Civiltest Stage 1 report as it included consideration of the OHSS area and noted "deep seated mass movement" as an instability characteristic along with other forms of erosion around the cliffs of the area covered by the proposed EMO1& 2.

The CMS report also noted the necessity to control surface drainage and the limitation of water infiltration to groundwater especially above the head scarps as these were seen to be "critical to stability" The report specifically noted at page 186 that:

> *…. in the four (4) active slip areas more investigation is required before a detailed works plan can be derived. These subsequent works will have to include improved drainage control both surface and subsurface, appropriate planting, coastal protection works (where relevant), control*

of private activities (clearing, building, watering), relevant geotechnical solutions and improved control of waste effluent in un-sewered areas.

It would seem to the Panel that the above report stimulated the landowners to take action locally following the report's recommendations, but that the Council's response was to instead initiate the Stage 1 Civiltest report, which was completed some 13 years later.

The response of the Council to the 1993 CMS report suggests to the landholder that the Council developed the proposed EMO schedules with a view to having the landowners pay for and undertake the bulk of the investigations seen as being necessary to respond to the risk perceptions set out in the Civiltest Stage 1 report. This requirement would inevitably be a protracted and expensive process. It is an expressed concern of most of the landowners who responded to this proposal.

The Panel note that under the requirements of the AGS LRM 2007 at page 66 – Guidelines for Regulators – it is stated that:

Where the regulator has specific concerns in relation to the adequacy of a submission or the conclusions of a Hazard Zoning Study, the submission should be subjected to a peer review or independent specialist advice to the regulator as an audit process.

It goes on to say that the reviewer should assess the report for compliance with the AGS LRM 2007 and the reasonableness of the conclusions and risk controls recommended. Following such a process could, in the Panel's opinion, be protracted and expensive and it should only be necessary where significant landslide hazards and risks exist.

7.2.2 Discussion

Mr Peck noted, at page 37 of his evidence, that the criteria that significantly affect slope stability are:

- local geology and the history of land use;
- groundwater profile and the depth of the water table below the ground surface;
- the shear strengths and distribution of the various subsurface materials;
- the slope of the ground surface;
- remedial works such as site regarding and drainage;
- marine erosion (for properties adjoining the foreshore; and
- monitoring.

He then commented at page 38/39 that 644, 646 and 648 Nepean Highway were substantial dwellings built close to the edge of *"a tall cliff whose stability is apparently unknown"*.

The Council's evidence was criticised by some submitters on the basis that it is more or less incomplete. The Panel does not agree with this conclusion but notes that the Civiltest Stage 1 report clearly states that it is a:

> *…. preliminary landslide risk assessment-conducted to improve the current understanding of landslide in the areas and to define zones of high risk.*

and the report goes on to state at page 1 that:

> *Future stages will include more intensive investigations including drilling, laboratory testing and slope monitoring to allow quantification of the hazards identified in Stage 1.*

These statements infer that the operation of the proposed EMOs is to be the source of the necessary additional evaluation which will be done at the landowners' expense.

As has been expressed in the discussion under Section 6.3.1, at least in so far as the Olivers Hill South Slip (OHSS) area is concerned, much of the area has not only been investigated, but has also been subjected to landslip mitigation measures which appear to have substantially stabilised the substrate across the lower slope and regraded areas from the toe of the 1971/73 head scarp to the coast.

The Panel inspected these works as well as coastal erosion stabilisation works undertaken along lots 7 to 11 Dolphin Court towards the north west end of the OHSS. It is evident that Civiltest, being uninformed of the extent of the work done by the landowners, did not have an adequate basis for assessing the landslide risk in the area. This is very much the thrust of Mr Peck's evidence and is consistent with comments of Ms Lardner. Mr Peck's evidence and Ms Lardner's submissions are both accepted by the Panel.

Further, the Panel note that the Council's reaction to the Civiltest report has been to develop the proposed EMOs without taking up the requirement for the "more intensive investigations" but rather moved to a limited slope monitoring exercise.

7.2.3 Conclusion

The Panel concludes that the proposed EMO 1 and 2 zones are inappropriate as a reflection of the landslide hazards which apply across the area. Rather, the area of the OHSS is best described as being "susceptible" to landslide. The area can be 'zoned' at this time as being:

- Monitored - low landslip risk – land already drained and stable west of the toe of the 1971/73 head scarp, with a second zone; and
- Unmonitored-undefined landslip risk – land susceptible to failure extending from the western toe of the 1971/73 head scarp to the eastern edge of the pre-historic head scarp.

The zone areas are indicated on Figure 2 of Mr Peck's statement. If the Council choose to follow this approach, the boundary between the zones should not be sensitive to property boundaries but rather to the geomorphology of the slopes.

The more westerly of the zones should be geotechnically defined as one unit by a co-operative assessment study including the totality of the data held by the Council and the landholders. This study would include an evaluation and risk assessment performed by an independent geotechnical expert meeting the requirements of the AGS LRM 2007, and be conducted consistent with the relevant standards of that document. Applications for permits within this area would then only have to demonstrate that they lay within the Monitored – low landslip risk zone.

Applications for building works in the Unmonitored – undefined risk zone between the two head scarp boundaries would be subject to geotechnical study to the standards relevant to the development and the conditions found to apply. Works subject to this requirement should also include Council and other organisations involved infrastructure developments including roads, subsurface drains and conduits such as those for sewerage, gas, telephone and power conduits to ensure that they do not exacerbate landslide risk.

7.3 Drainage

7.3.1 What is the issue?

The Olivers Hill area comprises land sitting mostly outside of Council's stormwater drainage network. For land along some parts of Sweetwater Creek, drainage to some properties seems rather haphazard.

While the provision of adequate drainage is referred to as being critical in minimising erosion and in minimising slope stability issues, drainage in the both the OHSS and in the land adjacent to the Sweetwater Creek Nature Reserve, is not comprehensively under control.

Council commented that in the OHSS area many houses were still serviced by septic tanks because the water company servicing the area did not have the power to make connection to reticulated sewerage mandatory.

Equally, concern was expressed as to the adequacy of surface and subsurface drainage from east of Nepean Highway affecting the groundwater levels in the slopes above the pre-historic head scarp. Mr Hardie also raised the need for drainage of hummocky ground.

7.3.2 Discussion

The Panel are informed as to how critical the issue of drainage is in respect to slope stability and erosion by the CMS report and by the data presented by the consultants for the landholders and for the Council.

Inspection of the area also confirmed the concerns expressed by Mr Hardie and by Mr Peck in respect to the land above and below the 1971/73 head scarp to the west of 644 to 648 Nepean Highway. Mr Eichler, for the Council, also noted the incomplete nature of the drainage along Nepean Highway.

It seems that, while there is a relatively small catchment to the pre-historic head scarp to the west of Nepean Highway, there is a large urban drainage catchment to Sweetwater Creek and this will exacerbate the issues being experienced in the nature reserve and in the gullies which drain to it.

7.3.3 Conclusion

It is outside the Panel's brief to consider drainage issues other than to recommend that any applications for new development in the two areas under consideration should include an indication as to what, if any, facilities can be included to ensure that increased drainage concentration does not

contribute to increased infiltration to the ground or increased runoff concentration. In most cases the facilities will involve landsurface regrading and the provision of deep drainage to ensure that ground watertable levels do not rise to any level which could give rise to landslide instability being indicated at local geotechnical monitoring sites.

7.4 Coastal Erosion

7.4.1 What is the issue?

Consistent with the information presented in the CMS Study, coastal erosion involves both undercutting of cliffs, and the erosion of beaches and the potential for prismatic failure and boulder topple events and rill and gully erosion.

These issues can be expected to continue into the future and to be exacerbated by the impacts of rising sea levels. In many respects, these are similar to the issues which apply to the land adjacent to the Sweetwater Creek Nature Reserve.

7.4.2 Discussion

Reference was made to discussions between government agencies and the Council by both Mr Peck and Mr Eichler. It appeared to the Panel that there has been no solution to the issue of coastal erosion nor is there evident any determination to find a solution within any declared time frame[4].

Ms Lardner brought the Panel's attention to the actions taken by one landholder to create a stabilising barrier to coastal erosion and it is understood that further work is to be undertaken at the landholder's expense in cooperation with DSE.

This work should achieve significant stabilisation of the lower elevation areas of the foreshore, but undercutting and runoff stimulated landslide risk still remain, especially south around the cliffs to the south of lot 3, 642 Nepean Highway.

[4] This does not appear to be the fault of the Council, which is not responsible for the management of foreshore.

7.4.3 Conclusion

Given the similarity of the landslide risks associated with coastal erosion with the landslide and erosion risks of the land adjacent to the Sweetwater Creek Nature Reserve it would seem logical that the requirements of EMO3 should apply to any developments extending within 20m of the upper contour of the sea cliffs, where the slope gradient break occurs above the cliff.

The eastern edge of this EMO zone across the OHSS area south of lot 3, 642 Nepean Highway would appear to be about the 16m AHD contour. This boundary would need to be checked for it's veracity by more precise geomorphologic evaluation of the coast using a contour interval of 0.5m.

Alternatively in the absence of better contour definition, the eastern boundary might be aligned with the western boundary of EMO2 between Gulls Way and the southern boundary of lot 3, 642 Nepean Highway. The western boundary of the zone would be the edge of the foreshore.

7.5 Peer Review

7.5.1 What it the issue?

The need for and definition of peer review has been addressed in part in section 5.3.2 above The extent to which a peer review is required relates only to where either high landslide risk exists or where the Regulator has concerns with the findings or conclusions of a report.

Since the Council has no geotechnical expertise in-house, it is understandable that a peer review requirement was included where the Council were advised by Civiltest that high to very high landslide risks existed.

7.5.2 Discussion

Where high landslide risk is found by study to exist, or where the Council has concerns as to the findings or conclusions of any geotechnical report associated with an application in an area where such conditions might be expected, the Council would be prudent to have a peer review undertaken both as an exercise in due diligence and to protect itself from any claims which might arise in the future should the landslide risk be realised with significant consequences in property damage or in public risk.

However, the risk perceptions presented in the Civiltest 2006 Stage 1 report appear to have been overstated due to a lack of knowledge of the extent of

landslide mitigation activities and monitoring in place at least to the west of the toe of the 1971/73 head scarp. If this is accepted, the justification for peer review requirements is diminished.

The Panel is of the opinion, on the basis of the information provided in the AMC report , by Mr Peck and by Mr Emmett of Civiltest in his Stage 2 monitoring report and in his evidence, that the area between the toe of the 1971/73 head scarp and the top of the pre-historic head scarp is 'Unmonitored and has an undefined risk status' or, alternatively, the extent of monitoring in time and area is insufficient to determine the landslide hazards and/or risks which might apply in relation to developments sought within this area.

Piezometers and inclinometers installed by the Council and numbered OH1, 2 and 5 appear to be located within the area referred to above. These monitor the granite bedrock, the Balcombe Clay and the Basal Tertiary conglomerates respectively. To date none of them are showing evidence which would, in the terms of AGS LRM 2007 assessment criteria, be considered as indicating significant instability.

The records are, however, less than 3 years long and have been recorded over an extended lower than average rainfall period. Given the steep slopes in this area, the past record of slope instability and the lack of any correlation being possible to rainfall or geology, if the Council had concerns as to the findings or conclusions of geotechnical reports, then peer review requirements could be justified, especially since the consequences of any substantial failure could impinge on property and infrastructure down slope.

7.5.3 Conclusion

The Panel recommends that the Council include the possibility of the need for a peer review or report audit for any application for development in the area between the toe of the 1971/73 head scarp and the upper edge of the pre-historic head scarp as shown on figure 2 of the AMC report.

7.6 Restructure plan issues

7.6.1 What is the issue?

Clause 52.03 specifies that:

> *If a specific control contained in an incorporated document identified in the schedule to this clause allows a particular use or development, that control will expire if any of the following circumstances applies:*

- *The development and use is not started within two years of the approval date or another date specified in the incorporated document.*
- *The development is not completed within one year of the date of commencement of works or another date specified in the incorporated document.*

There is scope for the responsible authority to extend the periods referred to if a request is made in writing before the expiry date or within three months afterwards. Once the control expires, the land may only be used and development in accordance with the provisions of the scheme.

The restructure plan the subject of the amendment provides as follows:

> *The exemptions provided for in this document expire after a limited period of time. The circumstances and times are set out at Clause 52.03 of the Frankston Planning Scheme.*

In other words, the controls expire if the development (and use) is not started within 2 years and completed within 1 year of the commencement.

The second issue is whether it is appropriate to approve the restructure plan having regard to the impact of new development on the area's landscape character.

7.6.2 Discussion

Timing of development

This control is rarely used in VPP schemes (there are only 2 entries to the schedule to this control in the Frankston Planning Scheme at the time of writing this report).

Ms Hosking and Ms Lardner were both critical of the time limits imposed by the Restructure Plan for the commencement and completion of development. Ms Lardner's submission was that these times should be extended to 2 years to commence (for Whitecliffe Avenue) and 4 years for Clyde Court. Both areas should then have 10 years to complete the development (15). For its part Council agreed to support a 4 year limit (7).

It would seem that there are 2 issues here: firstly when should the control itself expire; and secondly, when should any permit issued pursuant to the control expire.

In terms of the control itself, this timing is presumably dependent upon the ability of the landowner and the Council to apply for and consider an application. This time frame should presumably be long enough to allow the

preparation of all necessary data to support an application, its consideration by the Council and others and a possible appeal to the Victorian Civil and Administrative Tribunal. This is likely to take many years.

Any permit issued pursuant to the control should be long enough to allow the development to be commenced and completed and this will necessarily depend on the complexity of the project.

In the Panel's view, the scheme need not necessarily concern itself with resolving the second question (i.e. the length of the permit) but that it is sensible to address the length of the control itself. It should do so for reasons of orderly and proper planning. This would give the Council some flexibility in extending planning permits issued under the provision and not necessarily be bound by a restrictive provision (such as say, 2 years) which might require a planning scheme amendment to correct.

Given this, the Panel sees merit in varying the schedule to say the following:

> The words in the exhibited control:
>
> > *The exemptions provided for in this document expire after a limited period of time. The circumstances and times are set out at Clause 52.03 of the Frankston Planning Scheme.*
>
> Are to be deleted and replaced with:
>
> > *The exemptions provided for in the document expire after 5 years from the date of their approval date.*

This provides the Council with the flexibility to issue a planning permit and reasonably extend it should the circumstances demand it. The extent and number of extensions is then up to Council (or VCAT on appeal). Permits could not be applied for after 5 years (as the control would have expired). Council can then apply what it considers to be a reasonable time frame to the duration of the permit. If it acts unreasonably or refuses to extend a permit, this matter can be appealed.

> **The Panel recommends that the timing of the restructure plan be amended.**

Landscape character

The Council in its submission said:

> *Several submitters are concerned about the impact that development of the currently vacant restructure sites would have on their land in terms of stability and amenity. One submitter believes that this is unsuitable for development and should remain vacant.*
>
> *The purpose of introducing the EMO controls is to ensure that the impact of development is properly assessed and that development on one site does not have an adverse impact of the stability of that site or adjoining land.*
>
> *The two areas included in the restructure plan are in a Residential 1 zone the existing title could be developed in their current form. The restructure plan will not create any additional development potential; in fact it will result in a small reduction in lot numbers. The restructure plan proposals represent improvements on existing lot configurations and access arrangements. A permit will still be required to subdivide land (8).*

Ms Lardner's submission made the following comments about the restructure plan:

> *It is submitted that the merits of the restructure plans are obvious. The land the subject of the restructure plan enjoys a Residential 1 zoning and all existing lots are capable of being developed for dwellings. The restructure plan will not only deliver reconfigured lots that provide better access and an improved response to the prevailing topography but PSA C46 will result in a net loss of one lot capable of development (14).*

There were also submissions that the lots should be made larger (i.e. 2,500 square metres) coincident with the existing minimum lot size under DDO4.

7.6.3 Conclusion

The Panel does not accept submissions that the restructure plan should be abandoned or that it should be amended to require larger lots. The Panel accepts that the land is currently zoned Residential 1 and that there is some expectation that existing lots can be developed for housing in this zone. While current lot patterns make this relatively unlikely, the restructure plan provides an opportunity to resolve existing issues (such as road access and drainage) in a pro-active way. This approach is to be supported.

8. Recommendations

The Panel considers that Amendment C46 is strategically justified and should be adopted by the Council subject to the following actions and changes:

1 **Undertake such work as is required to delineate topographic breaks in slope across the area of the proposed EMO such that geomorphic boundaries can be established for a revised classification of the area of the OHSS, OHNS and the Coastal Cliff areas; and for future monitoring. This will probably require a contour interval of 0.5m.**

2 **Liaise with the existing landowners to obtain all data they possess in respect to the subsurface geology, hydrogeology, and geotechnical conditions on their land; the monitoring and reports of geotechnical consultants; and the location and engineering details of the drainage and stabilisation works completed. These data should be consolidated with all similar Council held factual data and reports of the area and made into a publicly available document.**

3 **Engage an independent experienced geotechnical consultant to prepare a report based on the totality of the data as consolidated above in which the geological strata and the depth to bedrock is mapped along with the hydro-geological conditions applying and the results of water table (piezometer) and inclinometer monitoring.**

4 **Make the consolidated geotechnical report a publicly available document including any recommendations for further ongoing work as is seen to be necessary across the area to infill material data gaps.**

5 **Redefine the proposed area of the C46 EMO as being 'Land Susceptible to Landslide'.**

6 **Redefine zones under the EMO into two only, these being:**

- **EMO1 - Monitored land already drained for geotechnical stability, being that land determined by geo-morphological mapping to lie west of the toe of the 1971/73 head scarp and the coastal cliffs and margins; and**
- **EMO2 - Unmonitored land undefined as to landslide risk and/or susceptible to failure, being that land between the toe of the 1971/73 and the pre-historic head scarp as determined by geo-morphological mapping and the land presently included within the proposed Sweetwater Creek area (originally exhibited as EMO3) and the Coastal Cliffs zones.**

7 Redraft the Schedules to the two zones to be ;

- **EMO1 as per the EMO2 schedule in the Council's exhibited amendment - but only requiring confirmation that the building works are within an area shown by monitoring to have been substantially stabilised by existing drainage or other structures; and that the building works proposed, including the siting construction , building design and footings are appropriate to the geotechnical condition of the site as known, or as may be determined by such additional investigation as is undertaken to fill in data gaps relevant to the site and / or the surrounds.**

  No requirement is seen for an assessment of landslide risk in this area following the AGS LRM 2007 protocols.

  A plan showing the existing and or any new structures proposed relevant to the ongoing geotechnical stability of the site shall be included, along with an explanation as to why these drains /structures demonstrate effective geotechnical stability long term.

- **EMO3 to be kept and renamed as EMO2. It is to be retained substantially in its exhibited form but with the minor changes set out in the Appendix B.**

8 The incorporated document is to be amended as follows:

Delete the following words:

The exemptions provided for in this document expire after a limited period of time. The circumstances and times are set out at Clause 52.03 of the Frankston Planning Scheme.

and replace with:

The exemptions provided for in the document expire after 5 years from the date of their approval date.

Appendix A Documents Reviewed During Panel Hearing

1. Curriculum Vitae – Warren Peck – A M C Consultants Pty Ltd.
2. Frankston Planning Scheme Amendment C46.
3. Map of Sweetwater Creek – Slopes of over 10 degrees.
4. Appendix 3 –Amendment C46 – Olivers Hill Area.
5. Appendix 3 – Amendment C46 – Lower Sweetwater Creek.
6. Australian Geomechanics Society – extract from volume 42 no 1 March 2007, Guideline for Landslide Susceptibility, Hazard and Risk Zoning for Land Use Planning, pages 12 to 179.
7. Whitecliffe Avenue and Clyde Court Restructure Plans – before and after.
8. Frankston City Council - Erosion Management Overlay Discussion Session leaflet.
9. Victorian Planning Provisions – extract 52.03 Sites and Exclusions.
10. Approval of Amendment C45 to the Frankston Planning Scheme – Minister for Planning.
11. Map of Oliver Hill drains – Council Responsibility.
12. Geological Map – 1:12208, Oliver Hill and Sweetwater Creek areas.
13. Mornington Peninsula Planning Scheme –Section 22.19 Landslide Susceptibility including Policy and Schedules to the Erosion Management Overlays EMO 1 to 5.
14. Alpine Resorts Planning Scheme – Section 22.01-2 Management of Geotechnical Hazard Local Planning Policy and Schedule 1 to the Erosion Management Overlay.
15. Yarra Ranges Planning Scheme – Schedule to the Erosion Management Plan and Fact Sheets setting out landslip and risk categories and Information for Land Owners for specific landslip categories.
16. Correspondence from Scott Emmett of Civiltest Pty Ltd to Mr Neal Gale dated 2 March 2007.
17. Map – Village of Frankston marked Sale Plan 90 dates 1854.
18. Submission by M & J Carraher 648 Nepean Highway.

19. Documents submitted by Ms Ginevra Hosking in support of the Clyde Court restructure plus a booklet – Sustainable Gardening in Frankston.
20. Submission by R G Graham – regarding 634 Nepean Highway.
21. Civiltest – a Geotechnical Report on the Slope Stability Study at 1 Somme Avenue Frankston.
22. Opening Submission – J. Lardner on behalf of the Gale, Gosstray, Hardie, Schuuman, de Haan and Hosking/Nash properties.
23. Mornington Peninsula Planning Scheme Amendment C105 – Panel Report, December 2009.
24. Yarra Ranges Planning Scheme Amendment C40 – Panel Report, 23 December 2008.
25. Alpine Resorts Planning Scheme Amendment C9 – Panel Report.
26. Mitchell Planning Scheme – Local Planning Policies Clause 22.03 – Environment.
27. Bushfire Replacement Buildings –Amendment VC57.
28. Site Survey Lots 4 and 5 Clyde Court, Frankston – Existing Level and Features.
29. Site Inspection Route Maps.
    a) Olivers Hill; and
    b) Sweetwater Creek.
30. Eight photos of the construction of the "Aggi Drain" on 636 and 638 Nepean Highway.
31. Timeline of Events – Whitecliffe Avenue to Clyde Court.
32. Typical Pile.
33. Request for Quotation and Project Specification for Olivers Hill Erosion Management Plan.
34. Site History of Whitecliffe Avenue Frankston from 1970 – 2010 – Neal Gale.
35. Action Sweetwater Creek Inc. – Submission to Panel Hearing Frankston Planning Scheme Amendment C46 – prepared by Jenny Hattingh.
36. Visitors Guide to Sweetwater Creek Nature Reserve.
37. Attachment to Document 35 above.
38. Frankston City Council Submission in Reply on Amendment C46 Hearing submissions.

Appendix B Amended Schedules

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SCHEDULE 1 TO THE EROSION MANAGEMENT OVERLAY

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

1.0 Permit requirement

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A permit is not required for the following buildings and works:

- A dwelling addition at ground level of up to 20 square metres.
- An upper storey addition to a dwelling.

A permit is not required to remove, destroy or lop vegetation that is not indigenous to the area.

2.0 Application requirement

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An application to construct a building or construct or carry out works must be accompanied by the following information:

- A geotechnical engineering report prepared by a suitably qualified geotechnical engineer, engineering geologist or geologist with experience in slope stability. The report must include the following:
  - A review of available information stabilisation actions and monitoring on the site and adjoining land.
  - Documentation of existing conditions including buildings and works, vegetation, geological strata, soil and rock exposures, groundwater, evidence of seepage, soil creep and slumping and an assessment of their impact on the stability of the site.
  - An assessment of the impact of the proposed buildings and work on site stability and recommendations on siting and construction techniques to minimise the risk of soil movement. Recommendations on building design and footings should also be provided, if appropriate.
- Recommendations about the need for any additional investigations, including a landslide risk assessment.
- Any other report which was prepared in accordance with the recommendations of the geotechnical engineering report.
- <u>A plan of the land, including relevant stabilisation works and data points used.</u>
- <u>A plan of the proposed buildings and works.</u>

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SCHEDULE 2 TO THE EROSION MANAGEMENT OVERLAY

Shown on the planning scheme map as **EMO2**

3.0 Permit requirement

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A permit is not required for buildings and works that are located at least 20 metres from the top of a slope of 10 degrees or more.

A permit is not required to remove, destroy or lop vegetation that is not indigenous to the area.

4.0 Application requirement

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An application to construct a building or construct or carry out works must be accompanied by the following information:

- A geotechnical engineering report prepared by a suitably qualified geotechnical engineer, engineering geologist or geologist with experience in slope stability. The report must include the following:
  - A review of available information on instability, seepage and building distress on the site or adjoining land.
  - Documentation of existing conditions including buildings and works, vegetation, geological strata, soil and rock exposures, groundwater, evidence of seepage, soil creep and slumping and an assessment of their impact on the stability of the site.
  - An assessment of the impact of the proposed buildings and work on site stability and recommendations on siting and construction techniques to minimise the risk of soil movement.
  - If appropriate, recommendations on building design and footings.
  - Recommendations about the need for any additional investigations, including a landslide risk assessment. Any landslide risk assessment must be undertaken in accordance with Australian Geomechanics Society, Landslide Risk Management, March 2007.
- Any other report which was prepared in accordance with the recommendations of the geotechnical engineering report.
- A plan of the land, including relevant stabilisation works and data points used.
- A plan of the proposed buildings and works.

Olivers Hill Lot Restructuring Plan

The following requirements apply to land, which is shown on the plans (two sheets) that form part of this document and is described in the schedule to Clause 52.03 of the Frankston Planning Scheme.

- A permit is required to subdivide land.
- The land is exempt from the subdivision controls at Clause 3.0 of Schedule 2 to the Design and Development Overlay.
- Subdivision must be generally in accordance with the plans (two sheets) that form part of this document.
- The number of lots created must not exceed three in the Clyde Court precinct and 21 in the Whitecliffe Avenue precinct.
- All other relevant requirements of the Frankston Planning Scheme continue to apply to the land.

The exemptions provided for in the document expire after 5 years from the date of their approval date.