

DEPARTMENT OF CONSERVATION, FORESTS & LANDS

**LAND CAPABILITY STUDY
IN THE
SHIRE OF VIOLET TOWN**

EROSION RISK ASSESSMENT
OTHER LAND USE CONSTRAINTS
LAND MANAGEMENT GUIDELINES

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TABLE OF CONTENTS

PREFACE	3
THE SCOPE AND LIMITATIONS OF THE REPORT	4
PART 1- SUMMARY AND CONCLUSIONS	5
OUTLINE OF THE STUDY	5
CONCLUSIONS	5
A. Erosion Risk Classes	5
B. Dryland Salinity	6
C. Wetlands	6
PART 2 - TECHNICAL ASPECTS OF THE STUDY	8
OUTLINE OF THE METHODS	8
ASSESSMENT OF EROSION RISK	8
MANAGEMENT GUIDELINES	10
AREAS OF SPECIAL CONSERVATION INTEREST	14
I Honeysuckle Creek Water Supply Catchment	14
II Seven Creeks Proclaimed Water Supply Catchment (Part) & Seven Creeks Catchment Land Care Project (Part).....	14
III Sheep Pen Creek Conservation Project	14
IV Warrenbayne Boho Land Care Project (Part).....	14
V Wetlands	14
Va McBurney Swamp	15
Vb Lehmann Swamp	15
Vc Shire Dam Swamp	15
Vd Jubilee Swamp	15
Ve Morphett Swamp	15
Other Wetlands	15
VI Flora Reserves	15
VII Other Known or Suspected Dryland Salinity	15
VIII Water Reserves	16
REFERENCES	17

List of Appendices

APPENDIX A - LAND UNIT DESCRIPTIONS	18
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PREFACE

Three requirements for sound land use planning are:-

- * an understanding of the extent to which the use will be limited by the natural characteristics of the land,
- * the effect the use will have on the land and the water derived from it,
- * the need for special land management or structural design to overcome limitations or to restrict the impacts to acceptable levels.

Land capability assessment is a rational and systematic means of obtaining this information.

The Department of Conservation, Forests and Lands is able to provide land capability information for a range of uses and at different scales to meet the various needs of planning. The information provides a relatively stable base on which to superimpose other planning considerations.

THE SCOPE AND LIMITATIONS OF THE REPORT

- * This report is based on an assessment of the physical characteristics of the land. Social, economic and other factors which may influence planning have not been considered. Such factors may be the subject of further input by the Department of Conservation, Forests and Lands.
- * The scale of the assessment has necessitated some generalisation. Site-specific data will be required for detailed planning at the individual farm or allotment level, through individual inspection by Conservation, Forests and Lands Staff or other qualified persons.
- * The precision with which boundaries are mapped is affected by the scale of the map. Subsequent enlargement of the map does not improve the precision and may be misleading.
- * The boundaries on the maps usually represent readily seen changes in the land. However, where an important land characteristic changes gradually, the boundary indicates approximately where there is a significant change in the effect on land use.
- * No material may be extracted from the report for publication without the written permission of the Department of Conservation, Forests and Lands.

PART 1- SUMMARY AND CONCLUSIONS

OUTLINE OF THE STUDY

An update of this Study was undertaken at the request of the Shire of Violet Town for use as an aid to planning and development within the Shire. The report describes erosion risk and other characteristics of the land which may impose, constraints on land development in the Shire.

Violet Town Shire (see locality plan) has an area of approximately 920 km² and varies from flat plains at about 120 metres elevation to steep hill country at 823 metres, with annual rainfall ranging from 500 millimetres in the north-west to 1270 millimetres in the Strathbogie Ranges.

Approximately 90% of the Shire is freehold land, the remainder being largely forested public land. The study concentrates on the freehold land and is less detailed on the public land.

Areas of special interest to the Department of Conservation, Forests and Lands are: Honeysuckle Creek Water Supply Catchment, Seven Creeks Catchment Land Care Project (part), Seven Creeks Water Supply Catchment, Warrenbayne Boho Land Care Project (part), Sheep Pen Creek Conservation Project, other areas of known or suspected dryland salinity, Jubilee Swamp, all other wetlands. These are detailed in Part 2.

CONCLUSIONS

A. Erosion Risk Classes

Erosion risk classes in the Shire are shown on the enclosed map. General management guidelines are presented in Table 2. The main conclusions and recommendations are summarised below.

(i) Land with severe erosion risk (Class 5). This land is considered highly hazardous and should have strong limitations placed upon its development.

- * It is recommended that subdivision of land in Erosion Risk Class 5 should not be permitted unless the developer can demonstrate to the satisfaction of the Dept. Conservation, Forests and Lands that the development will not result in increased soil erosion from the area.
- * Permanent clearing of Class 5 land should be prohibited and reforestation should be actively encouraged. In general, such land should be considered as best used for forestry and passive recreation.

(ii) Land with a high erosion risk (Class 4).

- * Intensive small-lot sub-division and clearing should be discouraged.
- * It is recommended that all proposals for development of land in Erosion Risk Class 4 be referred to the Dept. Conservation, Forests and Lands for specific advice on soil conservation requirements at the earliest possible stage.

(iii) Land with a moderate erosion risk (Class 3). Development of most of the moderate risk land should be possible without causing increased erosion provided specialised techniques and careful management, which take account of the natural characteristics of the land, are adopted.

In particular, areas where water naturally concentrates should not be disturbed, and disposal of

water which would be concentrated by development should be carefully plaid.

- * Advice on the need for specialised design and construction techniques and follow-up management should be sought from the Dept. Conservation, Forests and Lands prior to approval of any development.

(iv) Although land in Erosion Risk Classes 2 and 1 is not generally regarded as presenting significant erosion problems there may be small areas of higher risk which would require special management within the areas shown in those Classes on the map. Where such areas become apparent, the Dept. Conservation, Forests and Lands should be consulted for advice on appropriate management.

B. Dryland Salinity

Dryland salinity is referred to in the "constraints" section of "Appendix A" which identifies those units of land in which the discharge and recharge areas do or are likely to occur. The main conclusion, and recommendations are summarised below.

- (i) Recharge Areas: This is land where water is readily absorbed into the ground adding most significantly to the underground regional and/or local water table. Such ingress over time has caused water tables to rise resulting in the emergence of saline areas lower in the landscape (these are known as discharge areas).

Control of the amount of water being able to enter the underground system through the recharge area is the only practical means by which dryland salinity may be checked.

- * It is recommended that clearing in areas of recharge be subject to permit and actively discouraged.

It is recommended that tree planting in areas of recharge be actively encouraged.

In general, such land should be considered as best used for forestry and passive recreation.

- (ii) Discharge areas: This is land where the water table has risen to or to within close proximity of the surface. Salting of these areas occurs when salt is left behind at or near the surface following evaporation.

Salting causes the breakdown of soil structure and vegetation change. In severe case: vegetation will be lost altogether. These areas are highly erodible.

Superficial treatment of these areas is sometimes possible, but eventual control can only be achieved by water table management.

- * It is recommended that discharge areas not be used for intensive development, especially not residential subdivision.
- * It is recommended that any works in the vicinity of discharge areas be designed in such a way as to not impede drainage.

C. Wetlands

Wetlands in the Shire are identified in "Appendix A" under land form and designated as "Swamp". These are areas of land which are subject to prolonged periods of natural inundation.

It is recommended that consideration should be given to the retention of wetlands as areas of natural habitat and visual amenity.

LOCALITY PLAN - SHIRE OF VIOLET TOWN



PART 2 - TECHNICAL ASPECTS OF THE STUDY

OUTLINE OF THE METHODS

In order to identify and map areas of land with differing land capability, a systematic study of the natural characteristics of the land has been made. Areas of land which have consistent slope, soils and native vegetation on similar rock types and with a limited range of climate are identified. Such areas are referred to as land units.

Within the Shire, thirty-four land units have been identified, which are shown on the enclosed map.

The land unit information has been used together with local knowledge of the erosion risk of the various land types to categorise each of these units into erosion risk classes.

The land unit descriptions (Appendix A) provide a range of information which can be adapted for use by planners for purposes other than erosion control. In particular, areas subject to prolonged wetness or having poor effluent disposal or water holding characteristics can be identified. Where these constraints may exist they are referred to in the Constraints section of the tables in Appendix A.

WARNING

The information provided in the Constraints Section of Appendix A has been compiled by field observation only and needs to be confirmed by appropriate field and/or laboratory tests.

ASSESSMENT OF EROSION RISK

Erosion Risk is best defined as a means of rating the potential of land to erode if subjected to poor management or soil disturbance. Factors considered in this rating for each land unit are: Steepness of the land, erodibility of the soil, soil depth, permeability and structure and soil/water balance.

The erosion risk is assessed in five classes - Class 5 being the highest. Definitions of the classes are presented in Table 1.

It should be realised that because of the broad scale of mapping (1:50,000) the map units can only represent a general level of erosion risk over relatively large areas. Obviously at a more detailed level, local variations will be found. It is important therefore, that where areas of land are nominated for intensive development, the need for further detailed mapping at a much larger scale be recognised.

TABLE 1 - EROSION RISK CLASSES
(Read in conjunction with map enclosed)

CLASS	EROSION RISK	GENERAL LIMITATIONS ON DEVELOPMENT
1	None to very slight.	Erosion risk does not occur or is very slight. Standard designs and installation techniques and normal sight preparation and management should be possible without risk of erosion.
2	Slight	Slight erosion risk exists. Careful planning, and use of standard specifications for site preparation, construction and follow up management should be satisfactory to minimise erosion.
3.	Moderate	Moderate erosion risk exists which may lead to difficulties during and after construction, but which can be overcome. Specialised design, construction techniques and follow up management are necessary to minimise erosion.
4.	High	High erosion risk. Avoidance of erosion during and after construction is difficult and long term problems may occur. Adverse effects may be inflicted upon adjoining land. Extensively modified design and installation techniques, exceptionally careful site preparation and management would be necessary.
5.	Severe	Severe erosion risk and/or danger of large landslides is prevalent. Any development will cause instability which cannot be practically overcome.

MANAGEMENT GUIDELINES

There are considerable variations in standards of land management which can substantially effect stability, particularly in areas with high erosion risk. Similarly, techniques of earthwork construction and follow-up treatment can vary considerably with possible significant or drastic effect upon stability where these are inadequate or inappropriate.

The guidelines in Table 2 outline the type and levels of management considered necessary to guard against unacceptable land deterioration within each erosion risk map unit.

TABLE 2 - LAND MANAGEMENT GUIDELINES
(Read in conjunction with Map enclosed)

CLASS	EROSION RISK	GENERAL LIMITATIONS ON DEVELOPMENT
1	None to very slight	<p>Generally no specific conservation management practices are required in this map unit, except along drainage lines where erosion may occur.</p> <p>To minimise the danger of erosion in drainage lines, avoid disturbance and maintain a protective vegetative cover.</p> <p>Roads which cross drainage lines where high flows are likely should be designed with adequate culvert capacity or alternatively low profile floodway fords. Crossings should be as near as practicable to right angles to the flow to minimise cost and erosion potential.</p> <p>To avoid problems with spillways when siting farm dams in drainage lines which carry large flows, off-stream storages are recommended.</p>
2	Slight	<p>Generally only limited special management inputs are required in this map unit to prevent soil erosion, except along drainage lines where erosion is likely to occur.</p> <p>To minimise the danger of erosion in drainage lines, avoid disturbance and maintain a protective vegetative cover.</p> <p>Roads which cross drainage lines where high flows are likely, should be designed as for Unit 1 above. In addition, roads should be aligned close to contour and have adequate surface and/or subsurface cross drainage or be aligned directly up and down the slope with drainage water dispersed laterally.</p> <p>Disturbed areas caused during construction works should be revegetated by topsoiling and sowing.</p> <p>To avoid problems with spillways when siting farm dams in drainage lines which carry large flows, off-stream storages are recommended.</p> <p>Planning for fence locations should take account of significant topographical features so that it is possible</p>

CLASS	EROSION RISK	GENERAL LIMITATIONS ON DEVELOPMENT
		to conform to the criteria above.
3	Moderate	<p>Specialised land management techniques are required to minimise soil erosion. More-over, localised areas of higher risk occur in which intensive development of any kind should be avoided.</p> <p>To minimise the danger of erosion in drainage lines, avoid disturbance and maintain a protective vegetative cover.</p> <p>Employ contour cultivation or minimum tillage techniques for cropping and pasture establishment.</p> <p>Locate roads and fences on contour, along ridges or directly up and down the slope. Disperse water from roads at frequent intervals by surface or subsurface drainage. Design roads as recommended under Unit 1 above.</p> <p>Take care to minimise disturbed areas during construction and undertake adequate soil conservation measures. Conserve topsoil for resspreading after construction. Revegetation of these areas may require special treatment as well as sowing and adequate maintenance.</p> <p>All dams constructed in this unit will require careful siting, design and construction techniques.</p> <p>Generally a vigorous vegetative ground cover should be maintained throughout this unit.</p> <p>Subdivision into areas of small lots could cause increased erosion unless due consideration is given to topographical features. Planning of fence locations should also take into account these features so that it is possible to conform to the above criteria.</p>
<p>It is recommended that:</p> <p>Advice on the need for specialised design and construction techniques and follow up management should be sought from the Department of Conservation, Forests and Lands prior to approval of any development.</p>		
4.	High	<p>High inputs of specialised land management techniques are required to minimise soil erosion and/or landslides. Localised areas of higher risk occur in which any development should be avoided.</p> <p>Employ contour cultivation or aerial seeding for pasture establishment. Specialised management techniques for grazing are required. Cropping is not advisable. Department of Conservation, Forests and Lands advice should be sought.</p> <p>A vigorous vegetative ground cover should be maintained throughout this unit. Further forest clearing</p>

CLASS	EROSION RISK	GENERAL LIMITATIONS ON DEVELOPMENT
		<p>is undesirable and tree planting should be encouraged.</p> <p>All clearing or earthworks, including dam construction, roading and other construction works, should employ conservation specifications suitable for each site and include topsoil saving, revegetation, and other soil stabilisation measures and maintenance.</p> <p>Limited subdivision may be possible with due consideration to topographical features. Department of Conservation, Forests and Lands advice should be sought at the earliest planning stage.</p> <p>Planning of fence locations should take into account topographical features to avoid stock concentration in hazardous areas. Department of Conservation, Forests and Lands advice should be sought.</p>
<p>It is recommended that:</p> <p>All proposals for development of land in Unit 4 be referred to Department of Conservation, Forests and Lands for specific advice on soil conservation requirements at the earliest possible stage.</p> <p>Intensive small-lot sub-division and clearing should be discouraged, and tree planting should be encouraged.</p>		
5	Severe	<p>Any land disturbance will require extremely high levels of specialised management input to minimise soil erosion and/or landslides. Intensive development of any kind is undesirable and should be avoided.</p> <p>Cultivation is not recommended. Pastures should be sown by aerial seeding only and maintained as a vigorous ground cover.</p> <p>Grazing should be strictly controlled and consultation with the Department of Conservation, Forests and Lands on grazing management is highly recommended.</p> <p>Clearing of timber should be prohibited unless for timber harvesting and then should be strictly controlled and the area reforested immediately after. Reforestation of existing cleared areas should be actively encouraged. Some areas in this unit should not be disturbed under any circumstances.</p> <p>Earthworks of any kind should be discouraged except for emergency or fire protection purposes. In these instances strict attention to design specifications according to Department of Conservation, Forests and Lands requirements should be mandatory.</p> <p>Subdivision should be discouraged. However, isolated areas may be suitable for limited development. Such would require detailed terrain evaluation due to the</p>

CLASS	EROSION RISK	GENERAL LIMITATIONS ON DEVELOPMENT
		<p>severe risks involved.</p> <p>Planning of fence locations should take into account topographical features to minimise erosion by stock trafficking. Department of Conservation, Forests and Lands advice should be sought.</p>
<p>It is recommended that:</p> <p>Subdivision of land in this map unit should not be permitted unless the developer can demonstrate to the satisfaction of the Department of Conservation, Forests and Lands that the development will not cause increased soil erosion or land deterioration.</p> <p>Permanent clearing of land should be prohibited and reforestation actively encouraged.</p> <p>In general, the area should be regarded as being best used for forestry, passive recreation and strictly controlled grazing.</p>		

AREAS OF SPECIAL CONSERVATION INTEREST

I Honeysuckle Creek Water Supply Catchment

This area has been proclaimed a Water Supply Catchment under provisions of the Soil Conservation and Land Utilisation Act 1958. (A copy of this proclamation appears as Appendix B of this Report) and is shown as I on the accompanying 1:50,000 map.

II Seven Creeks Proclaimed Water Supply Catchment (Part) & Seven Creeks Catchment Land Care Project (Part)

This area has been proclaimed a Water Supply Catchment under provisions of the Soil Conservation and Land Utilisation Act 1958. (A copy of this proclamation appears as Appendix C of this report) and is shown as II on the accompanying 1:50,000 map.

The Land Care project comprises all the land of the watershed area above the Gooram Falls on the Seven Creeks plus the bed and banks and any frontage reserves leased and unleased of the Seven Creeks between Gooram Falls and the township of Euroa.

In the broadest possible terms the objectives of the project are to achieve a united effort by all concerned working towards the improvement of the total environment of the project area to ensure stable productive landuse in balance with nature.

III Sheep Pen Creek Conservation Project

This area comprises the watershed of the Sheep Pen Creek and part of the riverine plain to the west and is shown as III on the accompanying 1:50,000 map. The project covers 14,000 hectares with some sixty landholders being involved and it is estimated that approximately 500 hectares are visibly salt affected.

A landholder group was initiated for the purpose of: controlling and reducing the incidence and expansion of dryland salinity; improving water utilisation; encouraging better land management and trying to combat soil degradation and tree decline in the area.

IV Warrenbayne Boho Land Care Project (Part)

The Warrenbayne Boho Land Care Project covers an area of 25,000 hectares involving 150 landholders, which has: 400 hectares of salinised land, 400 hectares of salt affected land, 25 kilometres of gully erosion, 3,500 hectares susceptible to sheet erosion and numerous land slips and is shown as IV on the accompanying 1:50,000 map.

This project is managed by the Warrenbayne Boho Land Care Group Inc. The objectives of this group are, through mutual co-operation carry out salinity control works such as the revegetation of highly permeable rocky areas, with trees and high waters use pasture species. The revegetation of salt affected areas with salt tolerant species. The implementation of land management changes so that land degradation is prevented and controlled and to develop associated strategies to improve the profitability of present farm practices.

V Wetlands

The floodplain within the Violet Town Shire contains many areas subject to inundation. The most important of these wetlands are those which hold water for periods long enough to allow water birds to breed.

Va McBurney Swamp

A shallow freshwater swamp with river red gum covering 33 hectares. This is an ibis breeding area and should be used primarily to conserve the habitat of Native animals and water birds.

Vb Lehmann Swamp

A shallow freshwater swamp with river red gum covering 65 hectares, where both squirrel glider and feather-tail glider have been observed. This area should be used primarily to conserve the habitat of Native animals and water birds.

Vc Shire Dam Swamp

A shallow freshwater swamp with river red gum and grey box covering 25 hectares, which is a water Supply Reserve. This area should be used for the conservation of Native animal and water bird habitat.

Vd Jubilee Swamp

A shallow freshwater wetland with river red gum covering 147 hectares. This area in the past was a large breeding area for water fowl (particularly black duck). It is envisaged in the near future that a compromise between surrounding landholders and other interested parties will be reached for its improvement and at least partial return to its original use.

Ve Morphett Swamp

A freshwater wetland with river red gum covering 22 hectares which is an important ibis breeding area, and should be used primarily for that purpose as well as to conserve habitat for Native animals and water birds.

Other Wetlands

Periodic inundation of other areas increases the food source available to wildlife and improves general breeding particularly for water birds. (These areas are shown as BW and DW on the accompanying 1:50,000 map).

VI Flora Reserves

These reserves are significant because they contain examples of native vegetation with considerable floristic value in a natural or relatively natural state.

Via 2 hectares to be used to preserve the disjunct occurrence of green mallee and its association with red box.

Vib 5 hectares to be used to preserve the disjunct occurrence of green mallee and its association with grey, white and red box.

Vic 11 hectares to be used to preserve the woodland of white box, with some yellow box and the occurrence of *Acacia penninerois*.

VII Other Known or Suspected Dryland Salinity

The occurrence of Dryland Salting within the Shire presents a significant constraint upon development in certain areas of the Shire. Where Dryland Salting is known or suspected it is referred to in the constraints section of the tables in Appendix A.

Soil salting is defined as the accumulation of salts in the top 600 millimetres of soil. Soil salting causes the death of plants, the breakdown of soil structure and extreme erosion hazard.

Soil salting can be recognised in its early stages by the disappearance of pasture grasses, and their replacement by salt tolerant species such as sea barley grass (*Hordeum marmus*) and the appearance of small patches of bare ground. In cases of severe salting, areas can become totally denuded of vegetation.

Dryland salting is usually caused by the presence of ground water at or close to the soil surface. Over time evaporation of water leaves behind salts which eventually build up into damaging proportions.

The high water tables associated with dryland salting may be attributed to the removal of vegetation, particularly trees having deep root systems, from higher lands. This results in an increase of unused underground water which eventually causes the rising of ground water on the lower slopes.

It is recommended that Department of Conservation, Forests and Lands advice should be sought on proposed development in areas of suspected or observed salinisation.

VIII Water Reserves

These areas are retained to maintain the local character and quality of the landscape and should be used for fire protection, stock water and Shire purposes.

REFERENCES

A Study of the Land in the Catchment of the Broken River.

Allen S. Rundle & R.K. Rowe (1974) Soil Conservation Authority, Victoria.

Report on the North Eastern Area (District 2), Land Conservation Council, March 1985.

Land Systems Map of Victoria. Soil Conservation Authority (1975).

Soil, Land Use and Erosion Survey around Dookie, Victoria. Downes, R.G. (1949). Bulletin No. 243, CSIRO, Melbourne, Victoria, Australia.

Report on the Murray Valley Area, Land Conservation Council, May 1985.

APPENDIX A - LAND UNIT DESCRIPTIONS

(Read in conjunction with map)

SHIRE OF VIOLET TOWN

LAND UNIT NAME BADDAGINNIE

GEOLOGY	QUATERNARY ALLUVIUM				RAINFALL:	550 - 650 mm
MAP SYMBOL	BF	BFG	BU	BUg	BG	BW
EROSION RISK RATING	1	1	1	1	2	1
LAND FORM	Flat Plain	Gilgaied Flat Plain	Slightly Sloping Plain	Gilgaied Slightly Sloping	Gently Sloping Plain	Swamp
SLOPE %	0 - 2	0 - 2	1 -4	1 -4	3 - 7	0
SOILS	Yellow Sodic Duplex	Grey Sodic Uniform Clay	Yellow Duplex	Yellow Uniform Clay	Yellow Duplex	Grey Sodic Uniform Clay.
NATIVE VEGETATION	WOODLAND: Grey box, Yellow box, Red gum, White box, Apple box.					
CONSTRAINTS	Seasonally inundated	Gilgaied.	Seasonally wet. Salinity discharge	Gilgaied.		Inundated
	<ul style="list-style-type: none"> * Water can be stored throughout most of these unit in earthen tanks and dams. * These units are not erosion prone except in watercourses and depressions. * Salting is present in some depressions, which in itself is a restraint on development and may led to acceleration of erosion. * Disposal of septic effluent may pose problems because of the low permeability of may of the soils. 					

LAND UNIT NAME DOOKIE

GEOLOGY	QUATERNARY ALLUVIUM				RAINFALL:	500 - 600 mm
MAP SYMBOL	DF	DFg	DU	DUg	DW	
EROSION RISK RATING	1	1	1	1	1	
LAND FORM	Flat Plain	Gilgaied Flat Plain	Slightly Sloping Plain	Gilgaied Slightly Sloping	Swamp	
SLOPE %	0 - 2	0 - 2	1 - 4	1 - 4	0	
SOILS	Yellow Duplex	Sodic Grey Uniform Clay	Red Sodic Duplex	Grey Uniform Clay	Grey Uniform Clay	
NATIVE VEGETATION	WOODLAND: Grey box, Yellow box, White Cyprus pine.					
CONSTRAINTS	Seasonally inundated	Gilgaied	Seasonally wet. Salinity discharge	Gilgaied	Inundated	
	<ul style="list-style-type: none"> * Water storage is generally favourable, but deep sand leads may be found near streams. * These units are not erosion prone except in water courses and depressions * Salting is present in some depressions which in itself is a restraint on development and may lead to acceleration of erosion. * Septic effluent disposal may be hazardous because of the low permeability of most of the soils. 					

LAND UNIT NAME HONEYSUCKLE HEADWATERS

GEOLOGY	DEVONIAN RHYOLITE & RHYODACITE				RAINFALL:	1100 - 1250 mm
MAP SYMBOL	HR	HM	HH			
EROSION RISK RATING	3	3	4			
LAND FORM	Rolling Slopes	Moderate Slopes	Hilly Slopes			
SLOPE %	5-10	7-15	10 - 20			
SOILS	Friable Reddish/Brownish Gradational					
NATIVE VEGETATION	OPEN FOREST: Narrow leaf peppermint, Candlebark, Messmate, Blue gum and some Swamp gum.					
CONSTRAINTS	<ul style="list-style-type: none"> * The ability of soils to hold water is variable and unpredictable unless tested. * Surface springs throughout these units may cause large areas of inundation. * These units are susceptible to rapid erosion if the soil is disturbed or mismanaged. 					

LAND UNIT NAME LONE PINE

GEOLOGY	DEVONIAN RHYODACITE AND RHYOLITE				RAINFALL:	760 - 1270 mm
MAP SYMBOL	PG	PR	PM	PH	PS	PV
EROSION RISK RATING	3	3	4	4	5	5
LAND FORM	Gentle Slopes	Rolling Slopes	Moderate Slopes	Hilly Slopes	Steep Slopes	Very Steep Slopes
SLOPE %	3 - 7	5 - 10	7 - 15	10 - 20	15 - 25	20+
SOILS	Reddish Duplex	Red/Yellow Duplex	Yellow Duplex	Pale Gradational	Stony loam	
NATIVE VEGETATION	OPEN FOREST: Broad leaf peppermint, Red box, Red stringybark, Long leaf box & some Narrow leaf peppermint, Candlebark, Blue gum, Red gum					
CONSTRAINTS		Salinity discharge	Salinity recharge	Salinity recharge	Salinity recharge	Salinity recharge
	<ul style="list-style-type: none"> * Water storage is not assured due to the porous nature of most of the subsurface materials. * These units are susceptible to rapid erosion if disturbed or mismanaged. * Springs may cause large areas of inundation. * Septic effluent disposal may be hazardous in some of the soils due to shallowness of permeable soil over rock or some other impervious materials. 					

LAND UNIT NAME STRATHBOGIE

GEOLOGY	DEVONIAN GRANITE				RAINFALL:	1000 - 1300 mm
MAP SYMBOL	SG	SR	SM	SH		
EROSION RISK RATING	2	3	3	4		
LAND FORM	Gentle Slopes	Rolling Slopes	Moderate Slopes	Hilly Slopes		
SLOPE %	3 - 7	5-10	7-15	10 - 20		
SOILS	Yellow Duplex	Reddish Duplex	Red Duplex	Red Gradational		
NATIVE VEGETATION	OPEN FOREST: Broad & Narrow leaf peppermint, Candlebark, Swamp gum and some Blue gum.					
CONSTRAINTS	<ul style="list-style-type: none"> * Surface water storage is not assured due to the porous nature of the subsurface material. * These units are particularly prone to sheet and gully erosion if disturbed or mismanaged. 					

LAND UNIT NAME TARNOOK

GEOLOGY	PALAEOZOIC SEDIMENTS				RAINFALL:	550 - 650 mm
MAP SYMBOL	TU	TG	TR	TM	TH	TS
EROSION RISK RATING	2	3	3	4	4	5
LAND FORM	Slightly Sloping	Gentle Slopes	Rolling Slopes	Moderate Slopes	Hilly Slopes	Steep Slopes
SLOPE %	1 - 4	3 - 7	5-10	7-15	10 - 20	15 - 25
SOILS	Yellow Duplex		Red Duplex		Shallow Stony Gradational	
NATIVE VEGETATION	WOODLAND: Grey box, Red box, Long leaf box, Red stringybark, Yellow gum.					
CONSTRAINTS	Seasonally wet. Saline discharge	Saline discharge	Salinity discharge	Salinity recharge	Salinity recharge	Salinity recharge
	<ul style="list-style-type: none"> * Storage of surface water can be difficult due to rockiness. * Some of the area is subject to tunnel erosion because of highly dispersive A2 horizon. * High runoff causes a hazard to land immediately down slope. * Septic effluent disposal may be hazardous in some of the soils due to the highly dispersive clay subsoil. 					

[Extract from the Victoria Government Gazette, No. 52, dated 2nd June, 1976.]

Soil Conservation and Land Utilization Act 1958.
Land Conservation Act 1970.

HONEYSUCKLE CREEK (VIOLET TOWN WATERWORKS TRUST) WATER SUPPLY CATCHMENT.

PROCLAMATION

By His Excellency the Governor of the State of Victoria and its Dependencies in the Commonwealth of Australia, &c., &c., &c.,

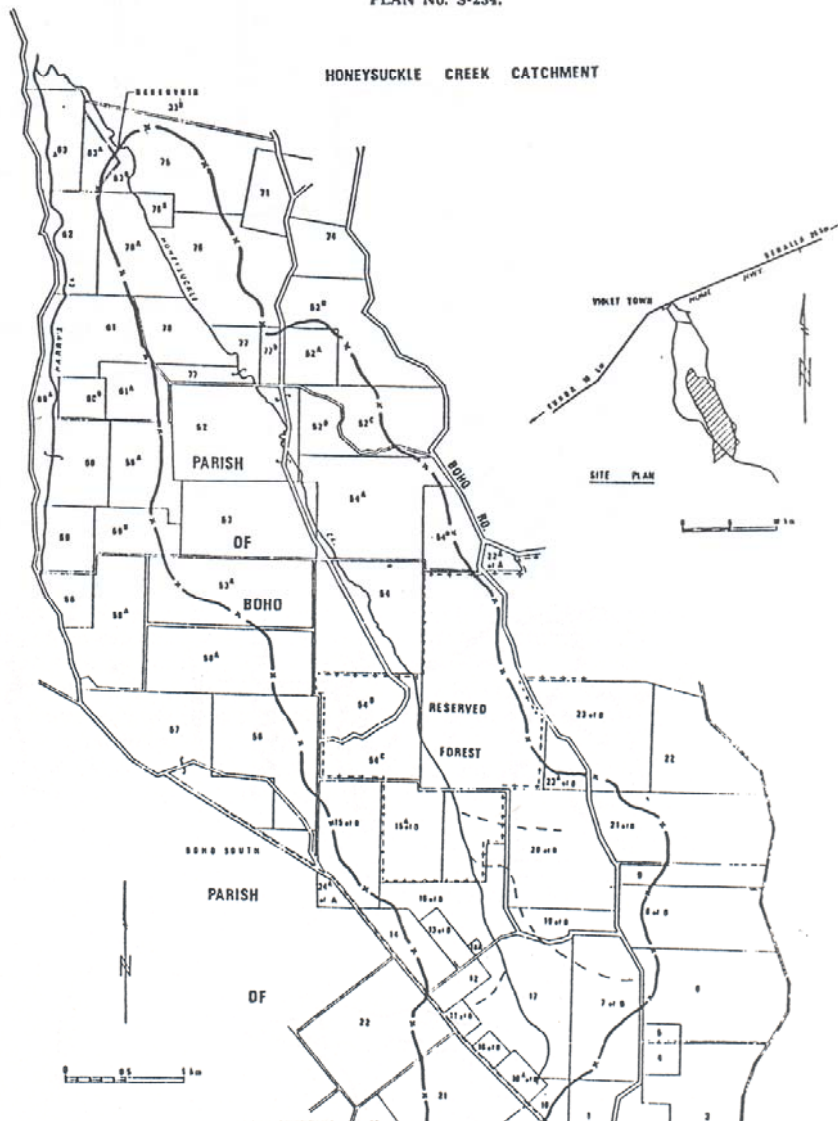
I, the Governor of the State of Victoria in the Commonwealth of Australia, by and with the advice of the Executive Council of the said State and having considered a recommendation of the Land Conservation Council in pursuance of the provisions contained in section 22 (1) of the Soil Conservation and Land Utilization Act 1958 (No. 8372) and section 5 (1) (b) of the Land Conservation Act 1970 (No. 8008) do by this Proclamation define the water supply catchment area to be known as the Honeysuckle Creek Water Supply Catchment.

The area proclaimed is the catchment to a reservoir constructed by the Violet Town Waterworks Trust, on the Honeysuckle Creek, adjacent to Crown allotments 63b and 75, Parish of Boho, County of Delnate.

The use of land within this catchment is subject to specification by notice or by determination made by the Soil Conservation Authority acting under the provisions of section 22 (2) and 23 (1) (a) (b) and (c) of the Soil Conservation and Land Utilization Act 1958, as amended.

The area described is indicated on Plan No. S-234 hereunder, the original of which is lodged at Head Office of the Soil Conservation Authority, 378 Cotham Road, Kew, 3101.

PLAN No. S-234.





SEVEN CREEKS & MOUNTAIN HUT CREEK (EUROA) WATER SUPPLY CATCHMENT

PLAN No S-1329

Figure 1

LEGEND

-  Catchment Boundary
-  Parish Boundary
- LIMA** Parish Name



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Given under my Hand and the Seal of the State of Victoria aforesaid, at Melbourne, this twenty-sixth day of June in the year of Our Lord one thousand nine hundred and eighty-four and in the thirty-third year of the reign of Her Majesty Queen Elizabeth II

(L.S.)

By His Excellency's Command

GOD SAVE THE QUEEN!

EVAN WALKER
Minister for Planning and Environment

By Authority F. D. Atkinson Government Printer Melbourne

J. Mc I. YOUNG