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SOIL RESOURCE SURVEY  
OF THE  
SUMNER REGION, PORT HILLS,  
CANTERBURY

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Presented in partial fulfilment  
of the requirements for the Degree  
of Master of Science  
in the  
University of Canterbury

by

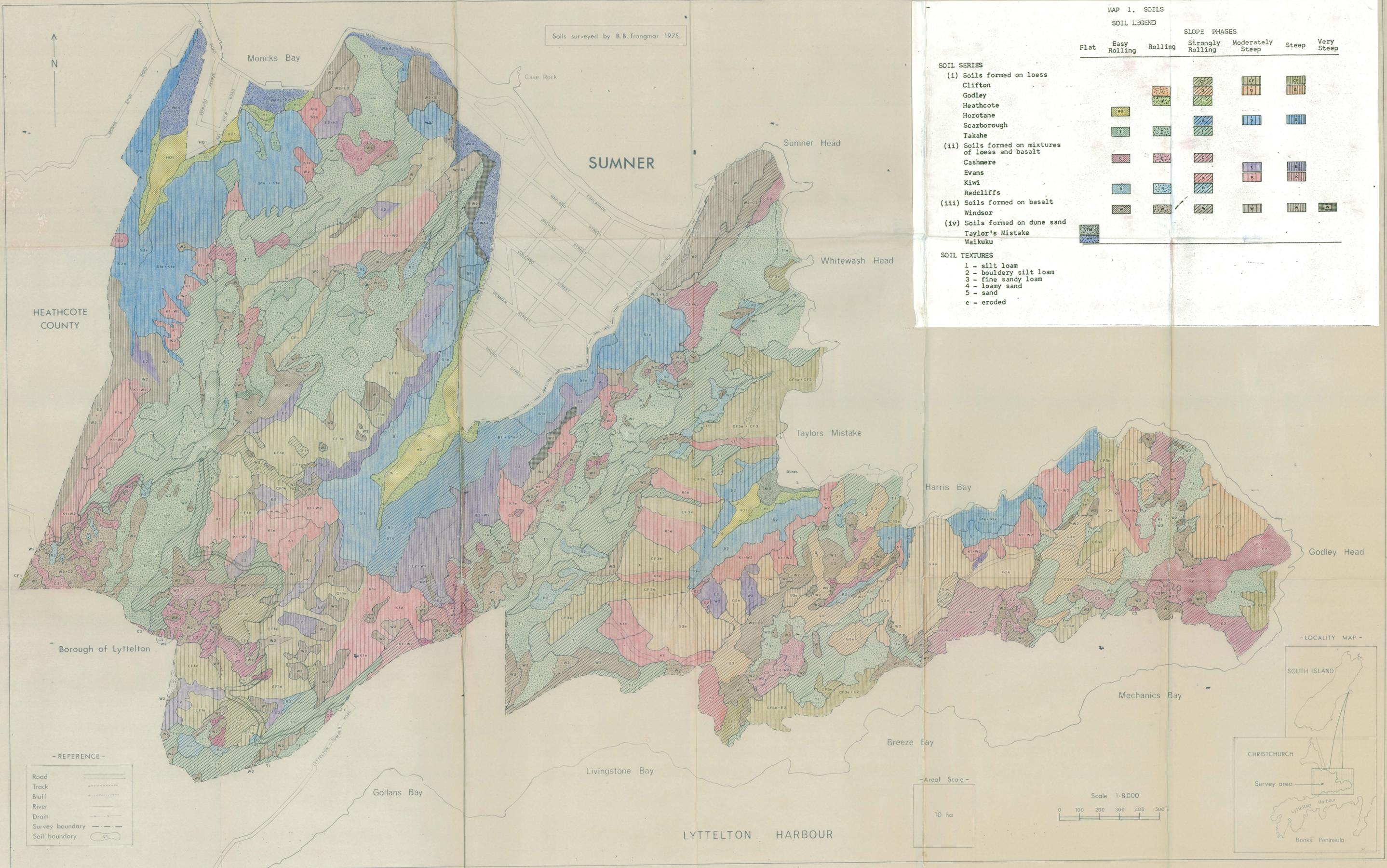
B. B. Trangmar

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Joint Centre for Environmental Sciences  
University of Canterbury and Lincoln College

1976

# SOIL MAP OF SUMNER REGION OF THE PORT HILLS, CANTERBURY, NEW ZEALAND.



MAP 1. SOILS

SOIL LEGEND

SLOPE PHASES

Flat    Easy Rolling    Rolling    Strongly Rolling    Moderately Steep    Steep    Very Steep

**SOIL SERIES**

- (i) Soils formed on loess
  - Clifton
  - Godley
  - Heathcote
  - Horotane
  - Scarborough
  - Takahe
- (ii) Soils formed on mixtures of loess and basalt
  - Cashmere
  - Evans
  - Kiwi
  - Redcliffs
- (iii) Soils formed on basalt
  - Windsor
- (iv) Soils formed on dune sand
  - Taylor's Mistake
  - Waikuku

Soil Series	Flat	Easy Rolling	Rolling	Strongly Rolling	Moderately Steep	Steep	Very Steep
Clifton							
Godley							
Heathcote							
Horotane							
Scarborough							
Takahe							
Cashmere							
Evans							
Kiwi							
Redcliffs							
Windsor							
Taylor's Mistake							
Waikuku							

**SOIL TEXTURES**

- 1 - silt loam
- 2 - bouldery silt loam
- 3 - fine sandy loam
- 4 - loamy sand
- 5 - sand
- e - eroded

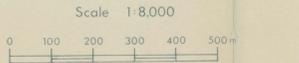
**- REFERENCE -**

Road	
Track	
Bluff	
River	
Drain	
Survey boundary	
Soil boundary	

**- Areal Scale -**

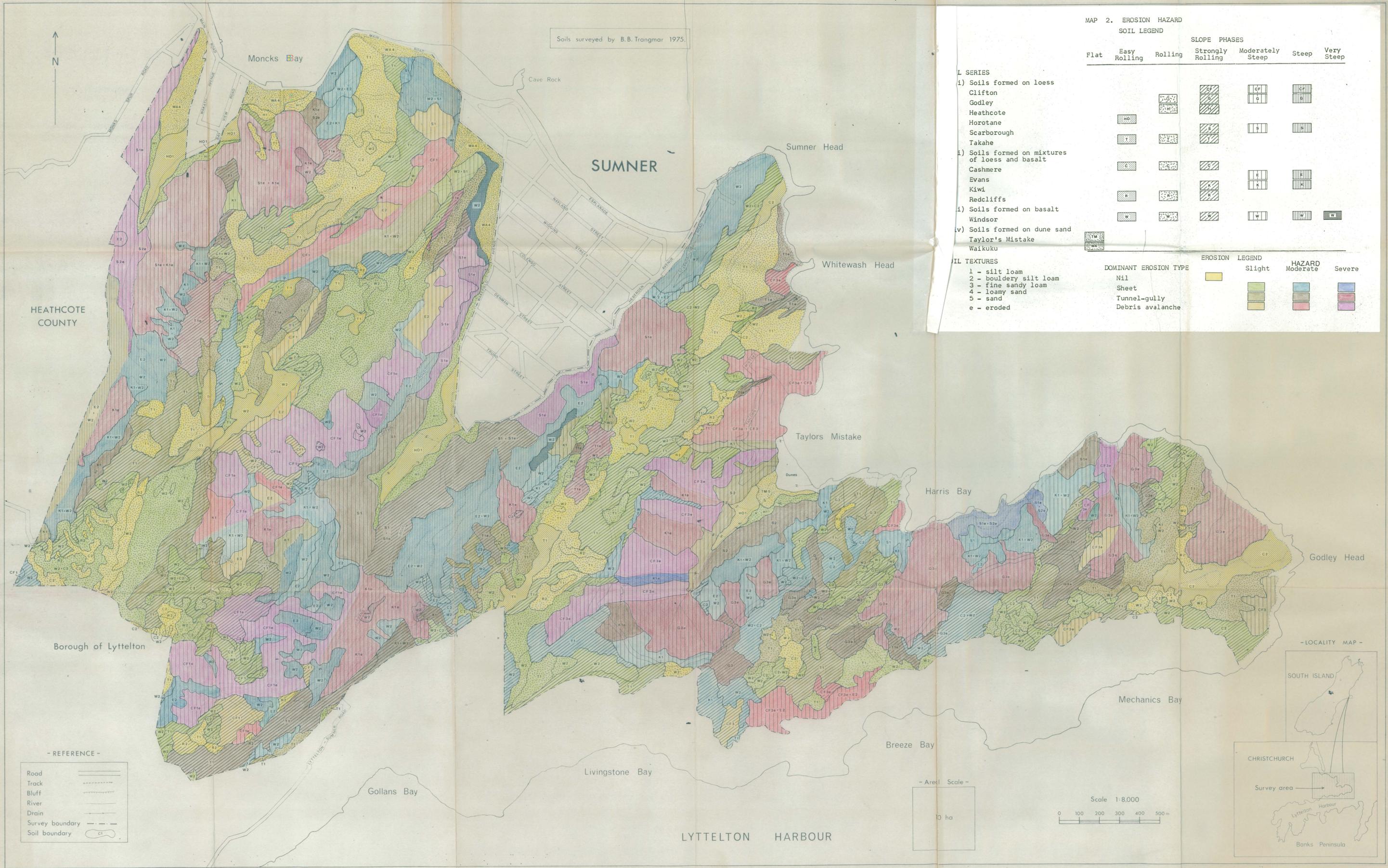


Scale 1:8,000



Drawn by W.F. Rennie

# SOIL MAP OF SUMNER REGION OF THE PORT HILLS, CANTERBURY, NEW ZEALAND.



Soils surveyed by B.B. Trangmar 1975.

MAP 2. EROSION HAZARD SOIL LEGEND

SLOPE PHASES	SLOPE PHASES					
	Flat	Easy Rolling	Rolling	Strongly Rolling	Moderately Steep	Steep
<b>L SERIES</b>						
1) Soils formed on loess						
Clifton						
Godley						
Heathcote						
Horotane						
Scarborough						
Takahe						
2) Soils formed on mixtures of loess and basalt						
Cashmere						
Evans						
Kiwi						
Redcliffs						
3) Soils formed on basalt						
Windsor						
4) Soils formed on dune sand						
Taylor's Mistake						
Waikuku						
<b>IL TEXTURES</b>						
1 - silt loam						
2 - bouldery silt loam						
3 - fine sandy loam						
4 - loamy sand						
5 - sand						
e - eroded						
<b>EROSION HAZARD</b>						
Legend	Slight	Moderate	Severe			
Dominant Erosion Type	Nil	Sheet	Tunnel-gully	Debris avalanche		

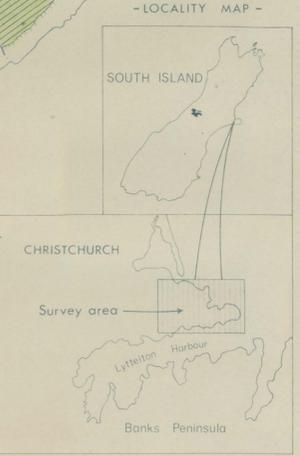
HEATHCOTE COUNTY

SUMNER

LYTTELTON HARBOUR

- REFERENCE -

Road	—
Track	- - -
Bluff	—
River	—
Drain	—
Survey boundary	- - -
Soil boundary	○



Drawn by W.F. Reine