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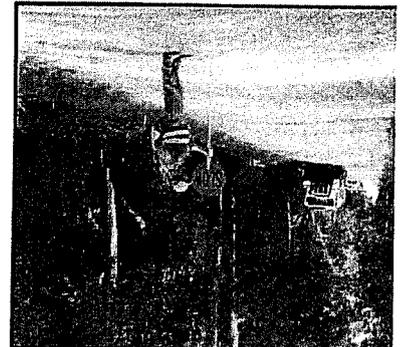
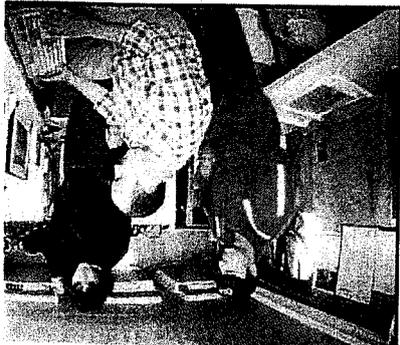
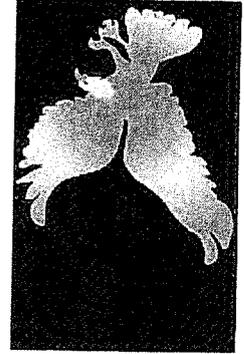


February 2006  
Project No. 1377.001

# ONSHORE SEISMIC SURVEY ENVIRONMENTAL MANAGEMENT PLAN

Great South Land Minerals Ltd

GREAT SOUTHLAND  
MINERALS  
LIMITED



Project Name:	GSLM Seismic EMP
Project No.:	1377.001
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**DOCUMENT CONTROL**

This Environmental Management Plan (EMP) has been prepared in accordance with the scope of services agreed upon between SEMF Pty Ltd (SEMF) and Great South Land Minerals Ltd (GSLM) (the client). To the best of SEMF's knowledge, the report presented herein represents the Client's intentions at the time of printing of the report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in the actual project and its impact differing from that described in this report. In preparing this report SEMF has relied upon data, surveys, analysis, designs, plans and other information provided by the client, and other individuals and organisations referenced herein. Except as otherwise stated in this report, SEMF has not verified the accuracy or completeness of such data, surveys, analysis, designs, plans and other information. No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third parties. This report does not purport to provide legal advice. Readers should engage professional legal advisers for this purpose.

**LIMITATIONS STATEMENT**

**PREFACE**



Onshore Seismic Survey Environmental Management Plan  
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**FOREWORD**

**Onshore Seismic Survey Environmental Management Plan**  
**Great South Land Minerals Ltd**



**Function of the Environmental Management Plan**

The Environmental Management Plan (EMP) has been prepared to support Great South Land Minerals (GSLM) in their application for approval to the Department of Primary Industries, Water, and Environment (DPIWE) and the Department of Infrastructure, Energy and Resources (DIER), to undertake an onshore seismic survey over southeastern Tasmania.

The seismic survey will be the largest onshore seismic survey ever conducted in Tasmania. GSLM is committed to ensuring that there are no detrimental impacts on the natural environment resulting from survey operations. The EMP aims to provide information that will allow GSLM to achieve their commitment to environmental protection and address the concerns of DPIWE and DIER regarding survey operations.

The proposed seismic survey and associated activities fall under the jurisdiction of Mineral Resources Tasmania (MRT) and the *Mineral Resources Development Act 1995*.

**Role in the Approval Process**

The EMP will support GSLM's applications for approval to the DPIWE, DIER, and MRT to undertake a comprehensive seismic survey in Tasmania.

**EXECUTIVE SUMMARY**

GSLM is planning to undertake an extensive seismic survey in Tasmania utilising approximately 1,446km of existing roads. The seismic survey will use vibroseis trucks to assist in the exploration for onshore oil and gas deposits within the untested Tasmania Basin. A similar survey on a smaller scale was carried out by GSLM in 2001, which indicated the presence of large geological structures that could contain oil and gas. One of the objectives of the proposed 2006 survey is to undertake further research on the these geological structures previously identified.

Roadside vegetation communities can provide important habitat for threatened species. The Threatened Species Unit (TSU) of DPIWE has granted GSLM with approval in principal for the undertaking of the seismic survey in the State Road reservation areas, with the requirement for GSLM to identify areas where threatened species could be adversely impacted by the seismic survey. A further requirement of TSU is to identify if there are any Wedge-tailed eagle nests present within 1km of the seismic traverses, and how they are to be managed if nests are present. DIER also required environmental screening reports to be completed prior to work permits being issued.

This EMP reviews the known records of threatened species that occur along the proposed seismic lines and provides management techniques to ensure that the seismic survey will not have an adverse impact on threatened species.

**Onshore Seismic Survey Environmental Management Plan**  
**Great South Land Minerals Ltd**



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GREAT SOUTH LAND

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**ABBREVIATIONS**

DIER	Department of Infrastructure, Energy and Resources
DPIWE	Department of Primary Industries, Water and Environment
EMP	Environmental Management Plan
GSLM	Great South Land Minerals Ltd
km	kilometre
MRT	Mineral Resources Tasmania
RPT	Roads and Public Transport Division of DIER
SEMF	SEMF Pty Ltd
TSU	Threatened Species Unit

Activity	Duration	Timing
Preparatory works	1 month	Early March 2006
Seismic acquisition	3-4 months	April – July 2006
Demobilisation	2 weeks	July 2006

Table 1: Proposed seismic survey timetable.

### 1.3 PROJECT TIMEFRAMES

The seismic survey will be undertaken in early in 2006, starting in April. The survey will take approximately 4 months to complete. Data interpretation will occur throughout the survey. A provisional timetable for the survey is outlined in Table 1. The seismic survey is proposed to start in the north of Tasmania, however the order in which the seismic lines are surveyed is subject to several factors e.g. the occurrence of public events such as Targa Tasmania and weather conditions.

In 2006, GSLM will undertake a larger onshore seismic survey, covering approximately 1,466km, which will be based on public roads. Approximately 1,100km of the survey will expand the regional coverage of seismic data, and 300km is aimed at more closely defining geological structures previously identified from the 2001 survey.

In 2001, GSLM and Terrex completed an onshore seismic survey covering 660km over the Central Highlands, Northern Midlands, and southeastern Tasmania. The initial interpretation, coupled with prior studies by GSLM, established that large geological structures exist south of Launceston and under the Central Highlands region. These structures are believed to have the potential to be petroleum traps.

The Tasmania Basin is an untested petroliferous (oil and gas producing) basin. The use of seismic surveys to identify prospective geological structures that could contain oil or gas is an established technique.

### 1.2 HISTORY OF THE PROJECT

Terrex Seismic Pty Ltd (Terrex) will be contracted by GSLM to undertake the seismic survey.

Project Manager: Nicole Chesterman

Hobart, Tasmania 7001

GPO Box 1603

Great South Land Minerals Ltd

The proponent is Great South Land Minerals Ltd (GSLM). GSLM is a fully owned subsidiary company of Empire Energy Corporation International (Empire Energy). GSLM is a Tasmanian onshore oil and gas exploration company, and holds Special Exploration Licence 13/98 (SEL 13/98), comprising of 15,035 square kilometres. The exploration licence may be partially relinquished or converted to a retention or mining lease at any time during the period it remains in force.

### 1.1 THE PROPONENT

## 1 INTRODUCTION

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A brief description of the structure of this report is provided in Table 2 below.

## 1.6 STRUCTURE OF THIS REPORT

survey.

Wherever practical, GSLM has aligned seismic lines along public roads. In cases where this is not possible, GSLM will consult with private landowners prior to and during the exploration program such as a seismic survey.

GSLM acknowledges the value of community input into carrying out an extensive

### 1.5.3 Community Consultation

GSLM has undergone extensive consultation with local Councils, in order to ensure that the Councils are informed about the regional seismic survey planned for April 2006. Each Council has been briefed regarding the seismic survey, how the survey will be carried out, and the possible impacts of the survey. Councils have also been provided with information booklets to be distributed to the general public.

### 1.5.2 Local Government Consultation

- Mineral Resources Tasmania;
- Department of Primary Industries, Water, and Environment;
- Department of Infrastructure, Energy and Resources; and
- Department of Tourism, Parks, Heritage and the Arts.

Several State Government departments have been consulted regarding the proposed GSLM seismic survey. The departments, which have provided comments include but are not limited to:

### 1.5.1 State Government Consultation

- The general public;
- Local Government; and
- State Government Agencies;

A proactive consultation approach has been adopted by GSLM with briefings regarding the seismic survey and operations being regularly undertaken with key stakeholders. The major stakeholder groups are as follows:

## 1.5 CONSULTATION

The main legislation that applies to the approval of this activity is the *Mineral Resources Development Act 1995*. All operations fall under the jurisdiction of MRT, and will follow the Mineral Exploration Code of Practice and Special Exploration Licence conditions. Furthermore, MRT has indicated that GSLM must liaise with all other relevant authorities, including DPWE and DIER.

## 1.4 APPROVALS

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Section Heading	Brief Description of the Information Provided
Foreword	A brief description of the function of the EMP and the information it contains.
Executive Summary	A summary of the proposed seismic survey and information provided in the report in support of the environmental and planning approvals.
1.0 Introduction	Description of the proponent, the project history, project timeframes, approvals required, and consultation undertaken by the proponent.
2.0 Seismic Survey Logistics	Description of the seismic survey logistics.
3.0 Environmental Management Plan	Description of the existing environment, with identification of significant features, potential impacts arising from the survey, and addresses the concerns of DPIWE.
4.0 Conclusion and Commitments	Summing up of the EMP, and how the requirements of DPIWE have been addressed.

Table 2: Brief Description of the EMP Report Structure.



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The Tasmania Wedge-tailed eagle, *Aquila audax fleayi*, is listed as vulnerable under the *Tasmanian Threatened Species Protection Act 1995*, and endangered under the *Commonwealth Endangered Species Protection Act 1992*. This unique subspecies of Wedge-tailed eagle only occurs throughout Tasmania, including its large near offshore islands. Wedge-tailed eagles nest only in old-growth trees in native forest, with approximately 80% of eagle nests occurring on private land or State forest, and few being protected in formal reserves. Eagles are very timid while breeding and are likely to desert

## 2.3 WEDGE-TAILED EAGLES

Seismic lines can be easily deviated to avoid affecting environmental values such as threatened species of plants or animals, or significant native vegetation. Prior to the surveying and pegging out of seismic lines, an environmental screening report of the Roads and Public Transport Division (RPT) environmental database has been undertaken to identify any threatened species or archaeological sites that the seismic lines could impact upon. The results of this screening report are presented in Section 2.5. Furthermore, to satisfy the requirements of the DPIWE regarding threatened flora, a botanist has reviewed the seismic lines and this is discussed in detail in Section 2.4. TSU has also been consulted with regarding the protection of Wedge-tail eagles during the survey.

The energy from the vibration radiates outwards in all directions from the vibrating baseplate. When the seismic waves reach geological formations with different structural properties the seismic waves are reflected or refracted. The seismic waves are recorded at the surface by geophones placed on the ground. The structure of subsurface geological structures are mapped by interpreting the variations in the times taken for the seismic waves to return to different points along the surface after reflection from the geological structures.

## 2.2 SEISMIC SURVEY METHODOLOGY

Onshore seismic surveys use seismic energy generated through dropping or vibrating a heavy mass on the earth's surface or through detonation of explosive charges. GSLM will use vibroseis trucks, whereby a vibrating baseplate is lowered to the ground and the weight of the truck is then placed over the vibrating baseplate. No explosive charges will be used during the proposed 2006 seismic survey.

The energy from the vibration radiates outwards in all directions from the vibrating baseplate. When the seismic waves reach geological formations with different structural properties the seismic waves are reflected or refracted. The seismic waves are recorded at the surface by geophones placed on the ground. The structure of subsurface geological structures are mapped by interpreting the variations in the times taken for the seismic waves to return to different points along the surface after reflection from the geological structures.

## 2.1 INTRODUCTION

The Threatened Species Unit (TSU) of DPIWE has granted GSLM with approval in principal to undertake the seismic survey within the road reservation areas, with the requirement for GSLM to identify areas where threatened species could be adversely impacted by the seismic survey. A further requirement of TSU is to identify if there are any Wedge-tailed eagle nests present within 1km of the seismic traverses, and how they are to be managed if nests are present. DIER also requires environmental screening reports to be completed prior to work permits being issued.

This EMP is aimed at addressing the requirements of TSU and DIER, and facilitating the issuing of a permit from MRT to allow GSLM to undertake the seismic survey (in an environmentally conscious manner).

A summary of the action required for each seismic line to ensure protection of threatened species is provided in Section 2.6.

## 2 ENVIRONMENTAL MANAGEMENT PLAN

Twenty-nine of the proposed thirty-five seismic survey lines were found to have records of threatened species adjacent to the roadside or within 100m of the proposed seismic line. The number of records along each line varies from single records to more than 100 records. The species identified as occurring along the seismic route and their status under the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBCA) is provided in Appendix A.

Given the extent of the seismic survey, it is possible that more threatened species occur along or near the proposed seismic survey lines that are yet to be identified. However, the length and high resolution of the seismic survey means it would be impractical to have a botanist on site during the survey.

To ensure that the planned seismic survey will not impact on any threatened species, a botanist was engaged to undertake a desktop review of vegetation community types to determine areas of high environmental sensitivity, or risk, based on the likely presence of threatened plant species or potential habitat along the proposed seismic lines. It should be noted that the accuracy of the threatened species location data obtained from the TSU used varies from 10m to 5,000m, and therefore the location of the records is somewhat indicative. Furthermore, it is possible that the threatened species database is not currently up to date and therefore there may be relevant threatened species records yet to be entered into the database.

The requirements of TSU regarding the protection of threatened flora during the seismic survey are as follows:

- That a botanist be present during exploration where the traverse is within areas of native vegetation known to contain significant threatened flora sites or where the traverse will go through areas of native vegetation types identified as potential habitat for threatened species;
- That a botanist is not required during the exploration where the traverse is restricted to the sealed/gravel section of the road or where the traverse goes through cleared land that contains improved pastures.

Tasmania is home to numerous unique plant species, and roadides can provide important habitat for threatened plant species.

## 2.4 THREATENED FLORA

To address the concerns of the TSU regarding the seismic survey and Wedge-tailed eagles, the co-location of known eagle nest sites with the proposed seismic lines was investigated by Bill Brown (Project Officer - Threatened Eagles, DPIWE) in 2006. Two nests within 500m of one of the proposed seismic lines were identified and reported as being active during the recent breeding season (Brown 2006, pers. comm). The nests are located on Bermuda Road, south of Jubbury (Brown 2006, pers. comm). The seismic line TB02-BF is proposed to pass along Bermuda Road.

GSLM and Terrex are committed to avoiding any impacts on the breeding success of the Wedge-tailed eagles resulting from the seismic survey. The preparatory works for the seismic lines is not planned to start until early March, and the actual seismic survey will commence in April. As a result, there will be no overlap between the breeding times of Wedge-tailed eagles and the proposed seismic survey.

a nest if disturbed. They breed from August to January and are particularly sensitive to disturbance early in this period (Bryant and Jackson, 1999).



DIER is responsible for the management of large areas of land incorporated in its roadside reserve system. Roadside reserves vary due to factors including their shape and size, variety of users and impacts, tenure and primary use as a transport corridor. Many of DIER's roadsides contain patches of remnant vegetation that represent valuable populations of rare and threatened plant species, priority vegetation communities, corridors for wildlife movement, wildlife habitat, and old growth or heritage trees. DIER is that are managed by DIER.

land within the road reserve. The reports also clearly identify any vegetation communities threatened species, archaeological sites, habitat values, and environmental threats for the is passing over. The environmental screening reports provide information regarding (Environmental Planner, DIER), for the relevant sections of the State roads that the survey reports from RPT's environmental database have been produced by Camille Boxall with regard to threatened species and archaeological sites, an environmental screening To assist GSLM in identifying areas that need to be protected during the seismic survey

**2.5 ENVIRONMENTAL SCREENING REPORTS**

GSLM will ensure that during surveying and pegging out the seismic lines, any areas that have been identified by the environmental screening reports (Section 2.5) or the botanical review, as requiring protection will be clearly marked and the seismic crew informed of their location and the appropriate action to take when working near these areas.

1. The start and end point of clusters of threatened species be flagged by surveyors; immediately after the survey in that area has been completed;
2. All flagging tape that signifies the presence of threatened species should be removed within the flagged areas a 200m buffer zone should be established either side of the road, as threatened species may be present nearby that have not yet been recorded;
3. No trucks or vehicles should leave the formed roads within the flagged areas and only essential light foot traffic should be allowed;
4. In the event that it is deemed necessary for vehicles to go off the formed road surface (which includes gravel shoulders) in the flagged sections or close to where individual record of threatened species are indicated, a botanist will be required to be present to check for threatened species;
5. In the event that it is essential for vehicles to go off the formed road surface (which includes gravel shoulders) in areas where threatened species are not known to occur, GSLM will consult with TSU regarding the need for a botanist to be present;
6. All seismic crew should be aware of the maps showing the location of threatened species and the significance of threatened species; and
7. All seismic survey vehicles only pull over for rest breaks etc in established areas such as gravelled pull off areas. These will be identified by the surveyors during the line pegging process.
8. All seismic survey vehicles only pull over for rest breaks etc in established areas

In order to protect the known threatened species from the seismic survey, the following recommendations are made (Welling 2006):

Maps were generated indicating the proposed seismic survey route and the location of threatened species along that route (Appendix A). Where there were clusters of records, the coordinates for each cluster as start and stop points were identified. These are provided in Appendix A (AG66 format). Coordinates are not provided for individual records due to their varying degrees of accuracy and the large number of records. Their approximate location can be determined from the maps provided.



Greening Australia has developed a series of markers called 'EnviroMark' (Figure 1). These markers have been installed at the start and end of each of the DIER conservation sites. The conservation sites are generally the area from the back of the table drain to the fence boundary, not including any areas maintained for road safety.

\*Note: This site does not have a DIER conservation site number.

State Road	Location on State Road	Proposed Seismic Line	Conservation Site	DIER Requirements
Midlands Hwy	Link 57 (2.95-2.98)	TB02-EB	14	No operations to occur within this area without consulting DIER Environmental Planner
Tasman Hwy	Link 36 (8.2-9.13)	TB02-FE	39, 40, 41	No operations to occur within this area without consulting DIER Environmental Planner
Tasman Hwy	Link 38 (0.00-0.45)	TB02-FB	42, 43	No operations to occur within this area without consulting DIER Environmental Planner
Tunnack MR	Link 57 (2.67-2.77)	TB02-BG	Population of <i>Lepidium hyssopifolium</i> *	No operations to occur within this area without consulting DIER Environmental Planner

Table 3: DIER managed conservation sites.

obliged to protect and conserve plant and animal species listed under state and federal legislation as threatened species or critical habitat. A number of critical species and habitats have been identified as being a priority for pro-active management in the State roadside reserve network. These occur where roadside populations are important to the conservation of the species, where the adjacent vegetation has been destroyed or is vulnerable to farming practices.

The environmental screening reports indicated that there are 7 sites of high conservation priority that are managed by DIER along the State roads on which GSLM propose to conduct the seismic survey. A summary of these sites and the required management approaches is provided in Table 3. Maps showing the location of these sites, detailed information, and the GPS coordinates are provided in Appendix B.



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Seismic Line	Wedge-Tailed Eagles	Threatened Flora	DIER Conservation Area	Action Required	Contact Person
TB02-AA	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPIWE)
TB02-BA	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables	Stephen Casey (DPIWE)

Table 4: Summary of threatened species issues for each seismic line.

To assist GSLM in planning and thereby facilitating the protection of threatened species during all seismic survey related operations, a reference table has been generated that provides an indication of whether there are any threatened species present for each of the seismic lines, the action required, and a contact person should any vehicles need to leave the road surface for any reason (Table 4).

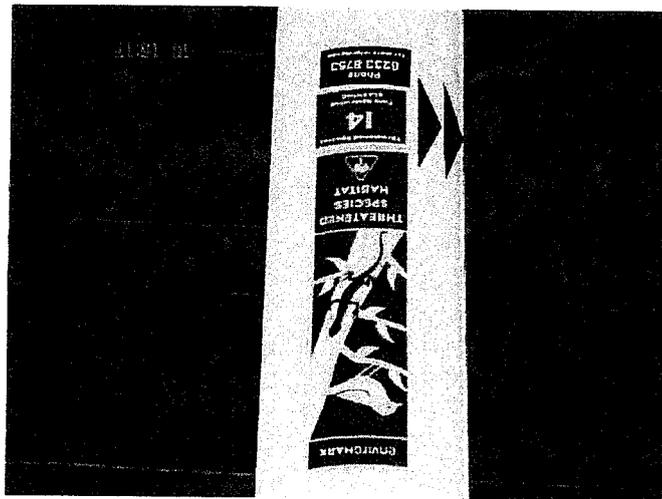
It is the responsibility of GSLM to ensure that the management measures provided in this report are followed during the seismic survey to ensure that there are no detrimental impacts on threatened species. Furthermore, it is the responsibility of GSLM to make certain that all people involved with the seismic survey are familiar with this document and significance of threatened species.

## 2.6 ENVIRONMENTAL MANAGEMENT OF SEISMIC LINES

GSLM will ensure that all Terrex personnel are aware of the significance of these areas and follow the required DIER management measures indicated in Appendix B.

During surveying and pegging out the seismic lines by Terrex, the conservation areas managed by DIER will be clearly marked using a specific flagging tape. Surveyors will identify these areas from the Environment signs and the information provided in Appendix B.

Figure 1: Greening Australia 'Environment' sign.



Seismic Line	Wedge-Tailed Eagles	Threatened Flora	DIER Conservation Area	Action Required	Contact Person
				provided in Appendix A.	
TB02-BB	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-BD	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-BF	Yes	Yes	-	Seismic line not to be surveyed prior to the end of February. Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-BG	-	Yes	Yes	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A. Follow DIER management measures outlined in Section 2.5.	Stephen Casey (DPWE) Vermaak (DIER)
TB02-BH	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-BI	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-CD	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-CF	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-CG	-	-	-	No threatened flora	-



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Seismic Line	Wedge-Tailed Eagles	Threatened Flora	DIER Conservation Area	Action Required	Contact Person
TB02-CH	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-CI	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EA	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EB	-	Yes	Yes	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A. Follow DIER management measures outlined in Section 2.5.	Stephen Casey (DPWE) Stephanus Vermaak (DIER)
TB02-EC	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-ED	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EE	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EF	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EG	-	-	-	No threatened flora records exist	-
TB02-EH	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)



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Seismic Line	Wedge-Tailed Eagles	Threatened Flora	DIER Conservation Area	Action Required	Contact Person
TB02-EI	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EJ	-	-	-	No threatened flora records exist	-
TB02-EK	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EL	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EM	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EO	-	-	-	No threatened flora records exist	Stephen Casey (DPWE)
TB02-EP	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-EZ	-	-	-	No threatened flora records exist	-
TB02-FA	-	Yes	-	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-FB	-	Yes	Yes	Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A. Follow DIER management measures outlined in Section 2.5.	Stephen Casey (DPWE) Stephanus Vermaak (DIER)
TB02-FC	-	Yes	-	Follow management measures 1-7 outlined	Stephen Casey



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Seismic Line	Wedge-Tailed Eagles	Threatened Flora	DIER Conservation Area	Action Required	Contact Person
Seismic Line				in Section 2.4. Use maps and tables provided in Appendix A.	(DPWE)
TB02-FD	-	Yes		Follow management measures 1-7 outlined in Section 2.4. Use maps and tables provided in Appendix A.	Stephen Casey (DPWE)
TB02-FE	-	Yes	Yes	Follow DIER management measures outlined in Section 2.5.	Stephen Casey (DPWE) Stephanus Vermaak (DIER)



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- The seismic survey proposed by GSLM has the potential to impact on threatened species present within roadside communities. In order to avoid detrimental impacts on threatened species, GSLM will therefore undertake the following measures:
1. Seismic trucks and associated vehicles will operate within the road formation (road surface and gravel shoulders);
  2. Seismic trucks and associated vehicles will only use existing gravelled or sealed pull off areas. These areas will be identified by the surveyors and used to plan each seismic line;
  3. Should the seismic trucks or associated vehicles need to leave the road formation at any time, including during surveying of seismic lines that pass over private property, the relevant authorities will be notified prior to survey operations commencing;
  4. Areas containing threatened species identified in this report will be flagged by surveyors prior to the seismic crew entering the area (and the flagging tape will be promptly removed on completion of the survey in the local area);
  5. GSLM will inform the relevant authorities of any issues regarding threatened species if they arise during the seismic survey;
  6. The management measures listed within this report and associated documents will be followed;
  7. The relevant authorities will be notified of any changes to the proposed seismic lines prior to the survey commencing or of any changes made during the survey; and
  8. All personnel associated with the seismic operation will be familiar with the contents of this report and the importance of protecting threatened species.

### 3 CONCLUSIONS AND COMMITMENTS

Onshore Seismic Survey Environmental Management Plan  
Great South Land Minerals Ltd



5

**PERSONAL COMMUNICATIONS**

Bill Brown (09/01/2006): Threatened Species Section, Biodiversity Conservation Branch, Department of Primary Industry, Water and Environment.

4

**REFERENCES**

Bryant, S and J. Jackson (1999). Tasmania's Threatened Fauna Handbook. Threatened Species Unit, Parks and Wildlife Services.  
Welling, A (2006). Desktop Threatened Flora Species Assessment of Seismic Survey Lines for Great South Land Minerals Ltd.



Onshore Seismic Survey Environmental Management Plan  
Great South Land Minerals Ltd



GREAT SOUTHLAND  
MINERALS  
LTD

**APPENDICES**

Appendix A: Desktop Threatened Flora Species Assessment..... 21

Appendix B: DIER Conservation Areas..... 22



Onshore Seismic Survey Environmental Management Plan  
Great South Land Minerals Ltd



Note: All coordinates supplied in this Appendix are in AG66 format.

## Appendix A: Desktop Threatened Flora Species Assessment



Onshore Seismic Survey Environmental Management Plan  
Great South Land Minerals Ltd



Desktop Threatened Flora  
Species Assessment of  
Seismic Survey Lines

For

*Great Southern Land Minerals  
Limited*

FEBRUARY 2006

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3.	DESKTOP SURVEY RESULTS.....	3
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areas.

season, known nest sites would need to be identified and measures taken to avoid these areas. If the surveying was delayed for any reason and then coincided with the breeding breeding season (August – January) and therefore it will have no impact on this species. considered as part of this report. The surveys are to be carried out outside the The TSU also requested that any impact on Wedge-tailed Eagle nest sites be

- the traverse goes through cleared land which contains improved pastures.
  - the traverse is restricted to sealed/gravel section of road.
- The presence of a botanist will not be required during the exploration where

- for threatened species by the consultant botanist.
- will go through areas of native vegetation types identified as potential habitat flora sites identified by the consultant botanist.
- is within areas of native vegetation known to contain significant threatened – that a botanist be present during exploration where the traverse:

In addition the TSU required the following:

traverses.

which identified any important threatened species sites, which occur along the road Upon referral to the Threatened Species Unit (TSU) of DPIWE, a report was required

assessed.

requires that the potential impact of seismic surveying on threatened flora species be As part of the permit process for this survey work, Mineral Resources Tasmania (MRT) and southern Tasmania.

surveying will be undertaken along 140km of roadways across a wide area of central explore for oil and gas reserves over the Tasmania Basin. Under this SEL seismic Great South Land Minerals Limited (GSLM) holds a Special Exploration Licence (SEL) to

## 1. INTRODUCTION

The following report is a desktop survey of the all threatened flora records in the vicinity of the survey lines. It identifies the location of threatened species records in relation to the traverse lines and provides recommendations to minimise any impact of the surveying.

The threatened species records were obtained from the Threatened Species Unit (DPIWE) (as shapfiles) for all areas traversed by the seismic survey lines. Records included all flora species listed under the Tasmanian *Threatened Species Protection Act 1995* (TSPA) and the Commonwealth *Environmental Protection and Biodiversity Act 1999* (EPBCA).

## 2. METHODOLOGY

The threatened flora records were overlaid across the proposed seismic survey lines using Arcview mapping software and any records that occur nearby to the traverse lines were plotted on maps (Appendix 1).

Where multiple threatened species records occur in close proximity to each other they were marked on the maps as clusters. The coordinates for each cluster along the survey lines (start and stop points) are provided in the Tables (Appendix 2). All coordinates are mapped in AGID66. Given the large number of individual records and their varying accuracy, coordinates have not been provided for these records. The approximate location of individual records can be determined from the maps.

### Limitations of the data.

The accuracy of the threatened species locations utilised in this report varies from 10m to 5000m and therefore the location of the records shown on the maps are indicative only. The data used in this report does not include recent records, as many have not been added to the database.

No active surveying was undertaken and the accuracy of the existing records were not checked in the field. Given the extent of seismic survey it is likely that more threatened species occur along or nearby to the survey lines.

### 3. DESKTOP SURVEY RESULTS

Twenty-nine of the proposed seismic survey lines were found to have recorded threatened species records adjacent to the roadside or within 100 m of the lines.

Records from each seismic line are recorded in Tables 1 - 27. These records include the species name, common name their status under the TSPA or EPBCA (Appendix 2). The coordinates for individual records and clusters of records are also provided.

### 4. SUMMARY AND RECOMMENDATIONS

Threatened flora records occur along the majority of the survey lines. The number of records along each line varies from single to over 100 records.

Under the TSU requirements a botanist would need to be present when the seismic surveying was occurring in areas that contain threatened species. The proposed seismic survey is to be carried out on formed roads or through cleared land (containing improved pasture) and therefore a botanist should only be required if the survey vehicles need to leave the formed roads.

The following recommendations should ensure that threatened flora species (from known records) are not impacted upon by the surveying.

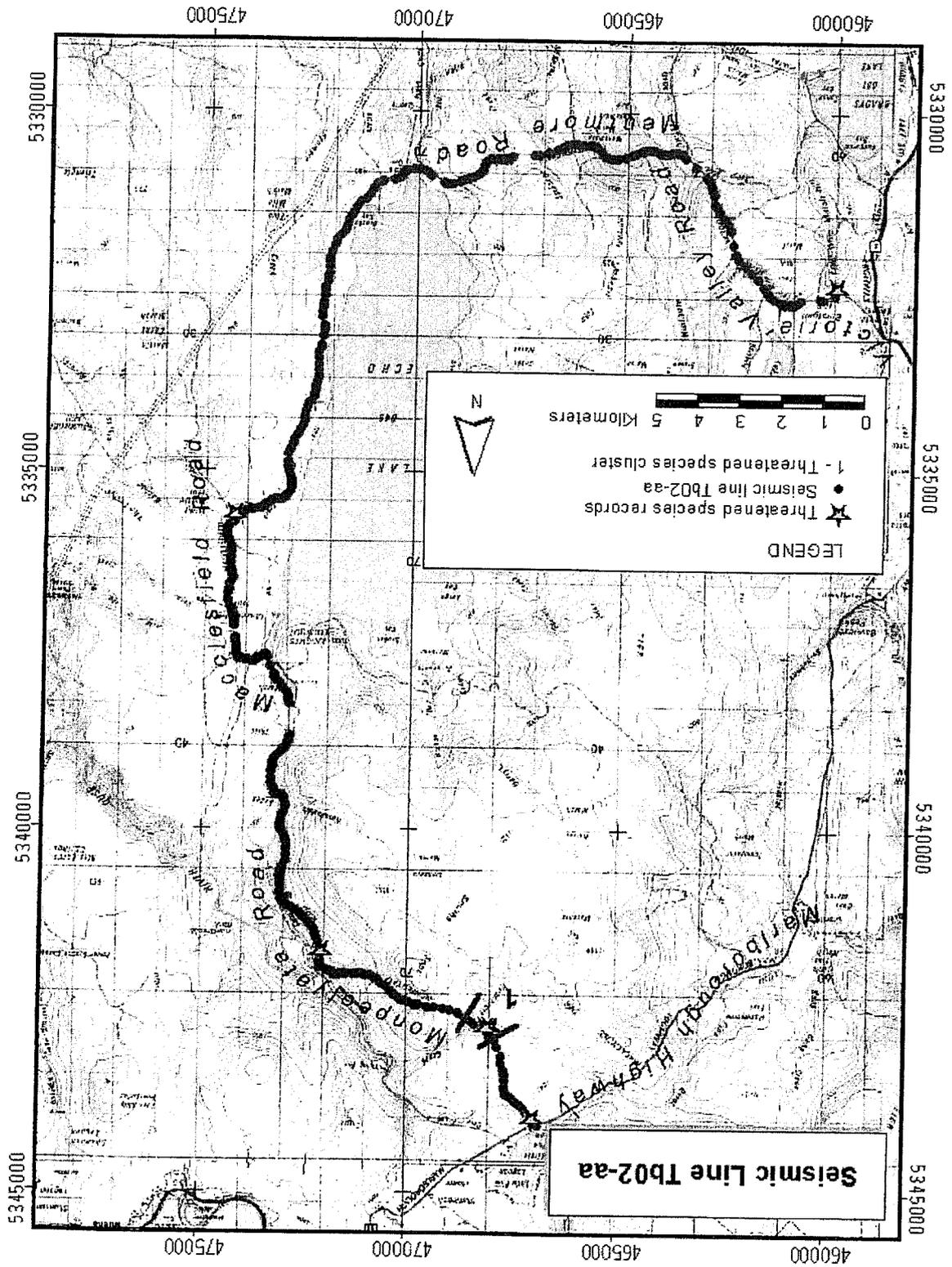
- The start and end point of threatened species clusters should be flagged by surveyors.



### APPENDIX 1 - Maps of Seismic Survey Lines.

#### List of Maps

Map Tb02-aa	Map Tb02-ba (north)
Map Tb02-ab (north)	Map Tb02-ba (south)
Map Tb02-bb	Map Tb02-bd (south)
Map Tb02-bd (north)	Map Tb02-bd (north)
Map Tb02-bf (north)	Map Tb02-bf (central)
Map Tb02-bf (south)	Map Tb02-bg (north)
Map Tb02-bg (south)	Map Tb02-bh
Map Tb02-bi	Map Tb02-bj
Map Tb02-cd	Map Tb02-ci & Map Tb02-cg
Map Tb02-ch & Map Tb02-ci	Map Tb02-eh & Map Tb02-ei
Map Tb02-ea	Map Tb02-ek
	Map Tb02-el (north)
	Map Tb02-el (south)
	Map Tb02-em
	Map Tb02-ep
	Map Tb02-fa
	Map Tb02-fb
	Map Tb02-fd
	Map Tb02-fe (south)
	Map Tb02-fe (north) & Tb02-fc (south)



**Seismic Line Tb02-aa**

**LEGEND**

- ★ Threated species records
- Seismic line Tb02-aa
- 1 - Threated species cluster

0 1 2 3 4 5 Kilometers

N

5330000 5335000 5340000 5345000

460000 465000 470000 475000

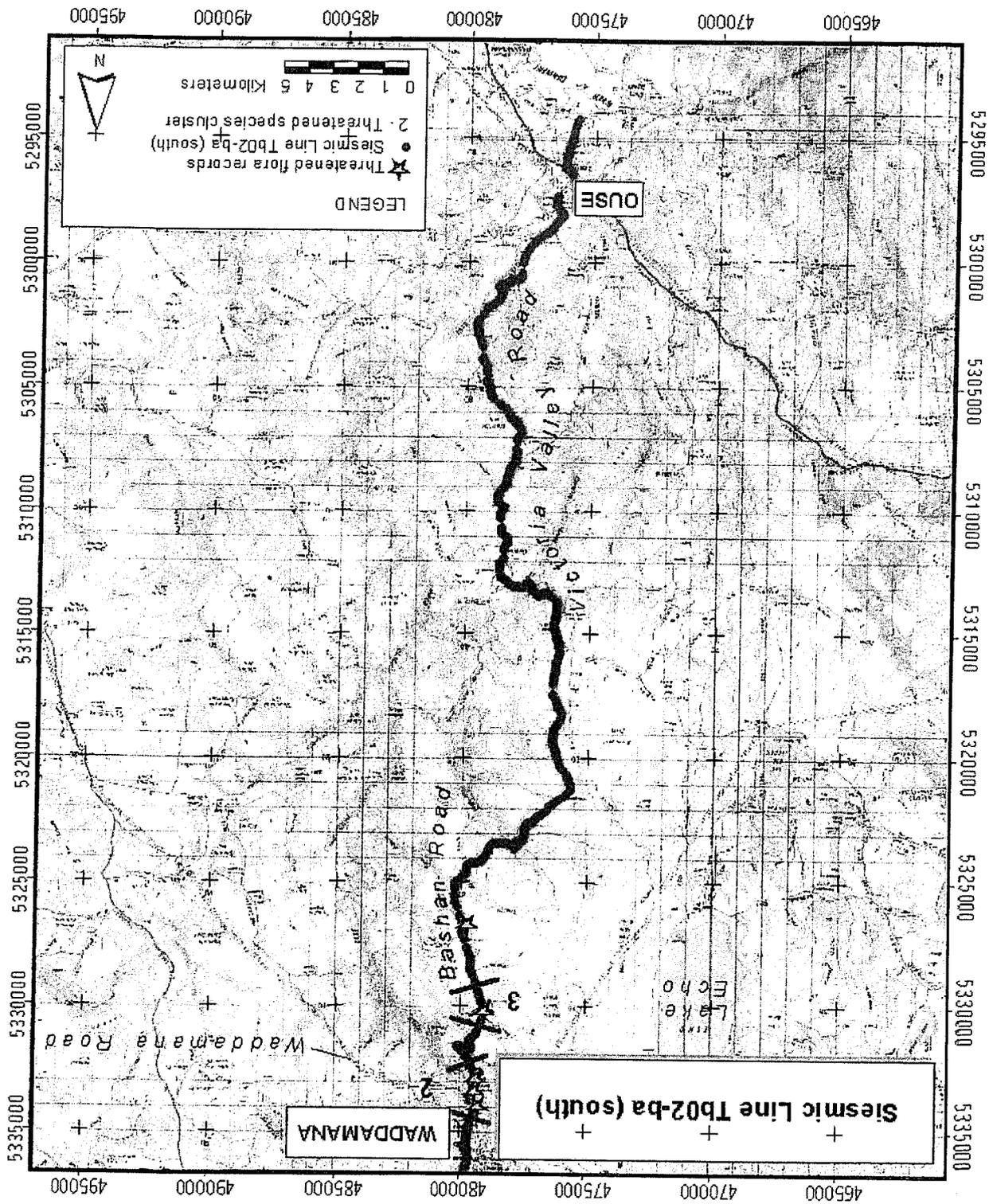
Melbourne Road

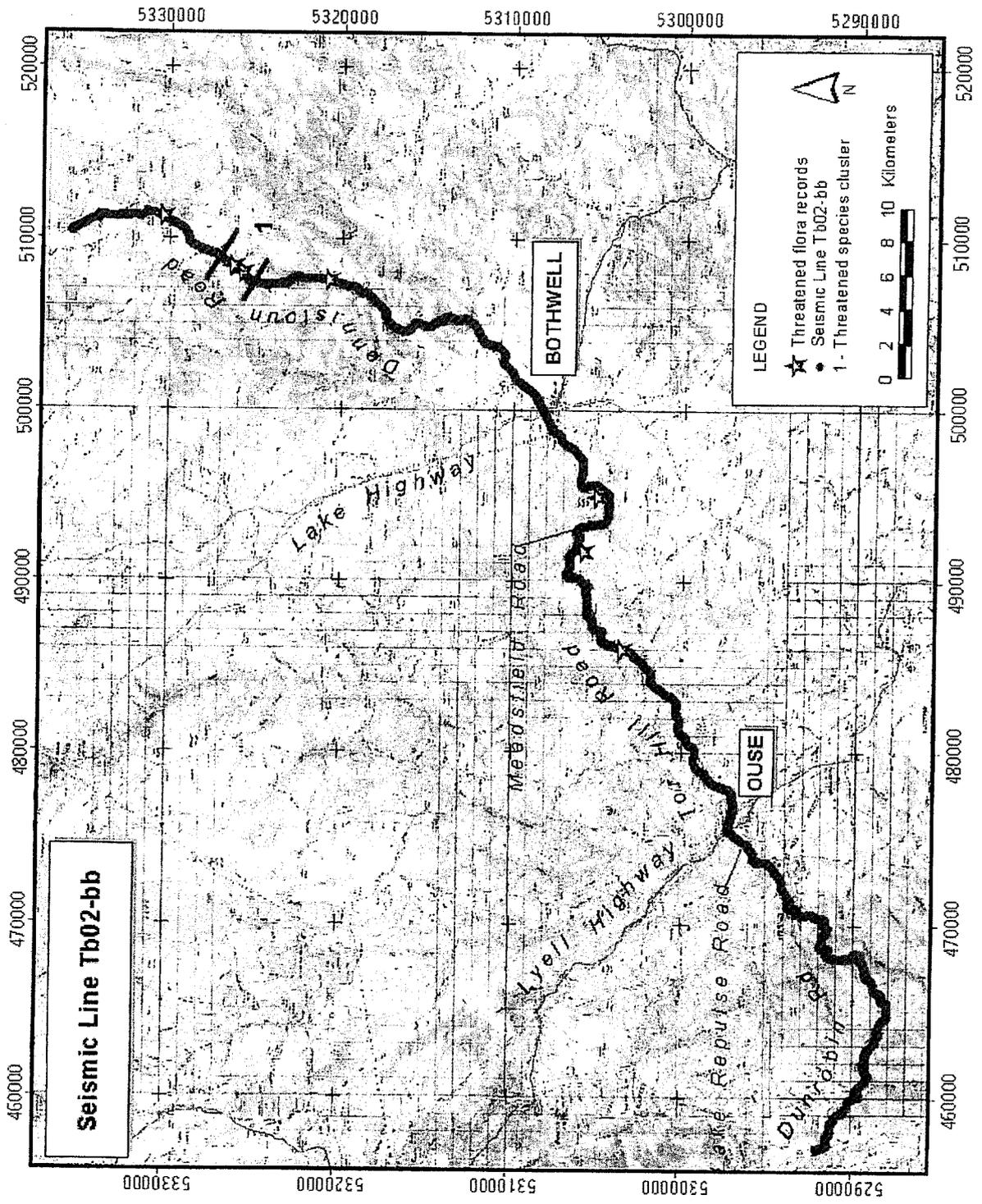
Colesfield Road

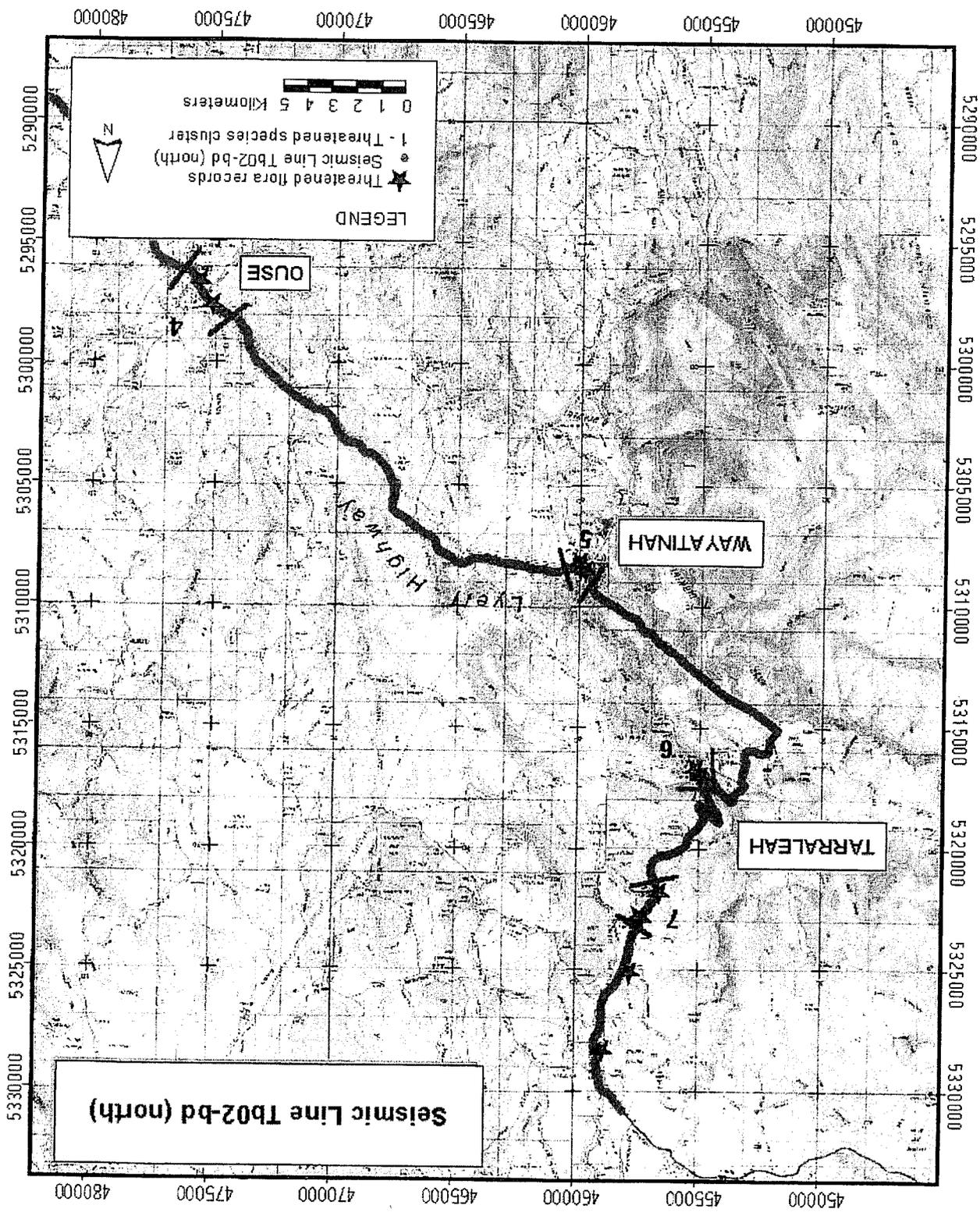
Woodpecker Road

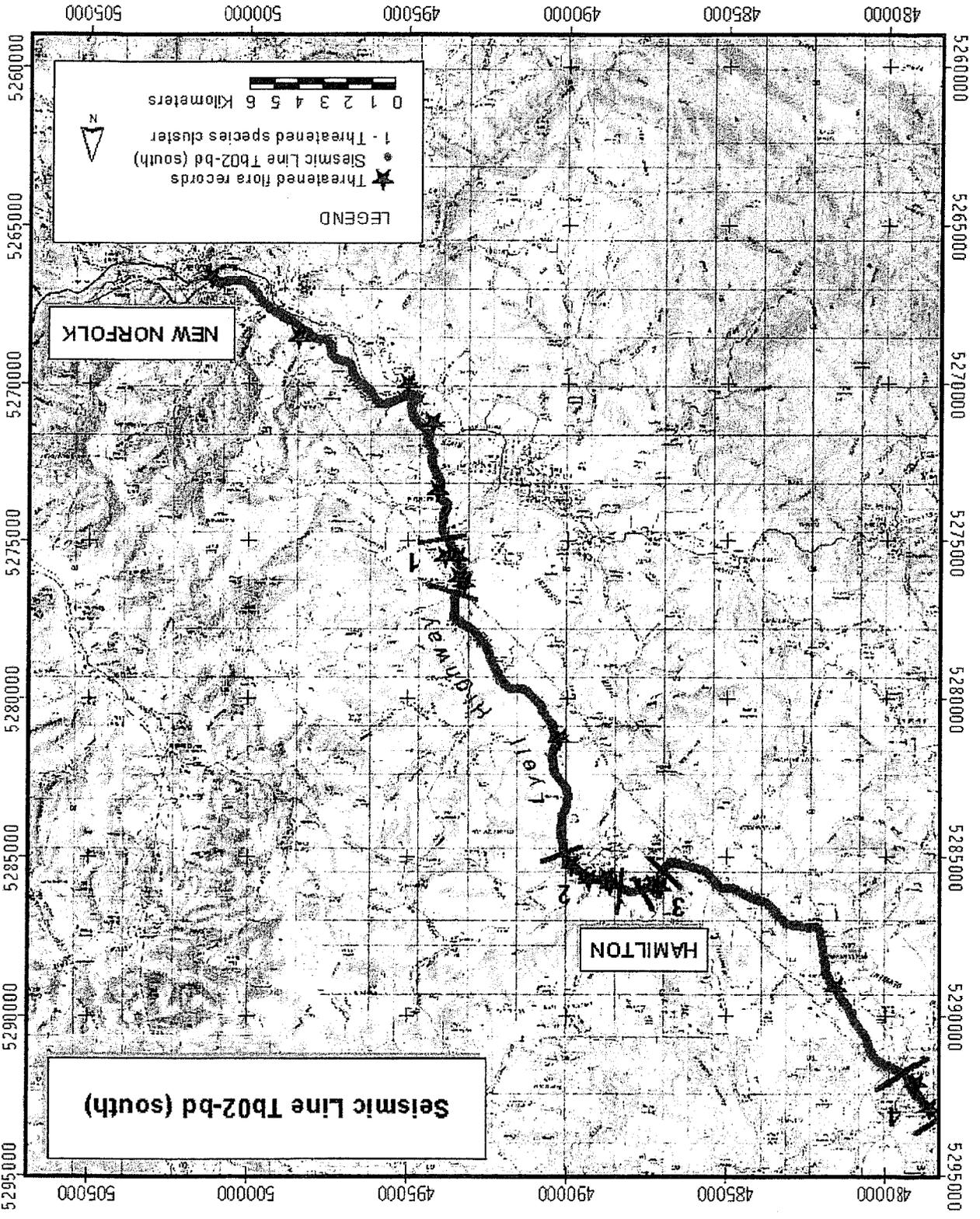
Maribou Highway











**LEGEND**

- ★ Threatened flora records
- Seismic Line Tb02-bd (south)
- 1 - Threatened species cluster

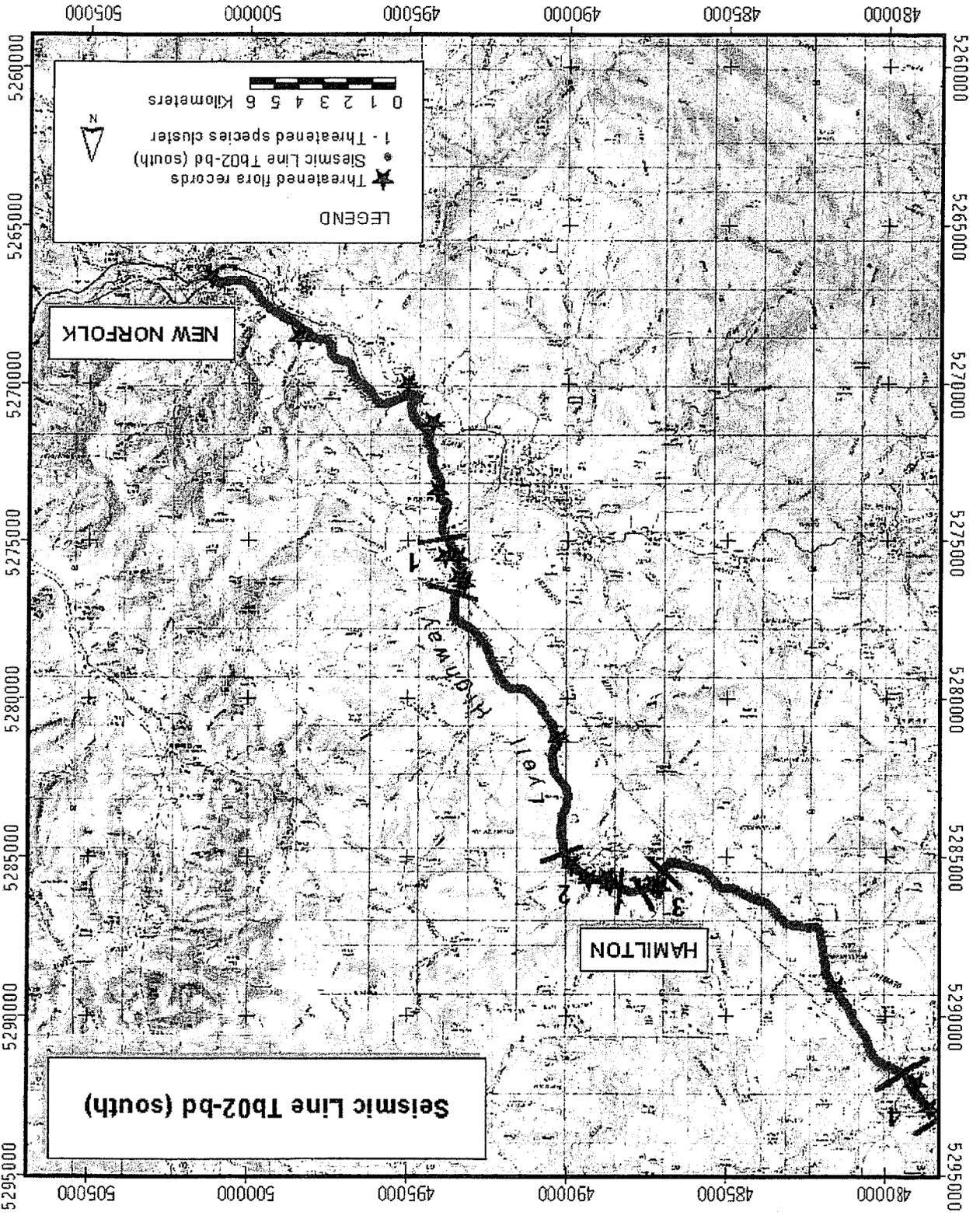
0 1 2 3 4 5 6 Kilometers

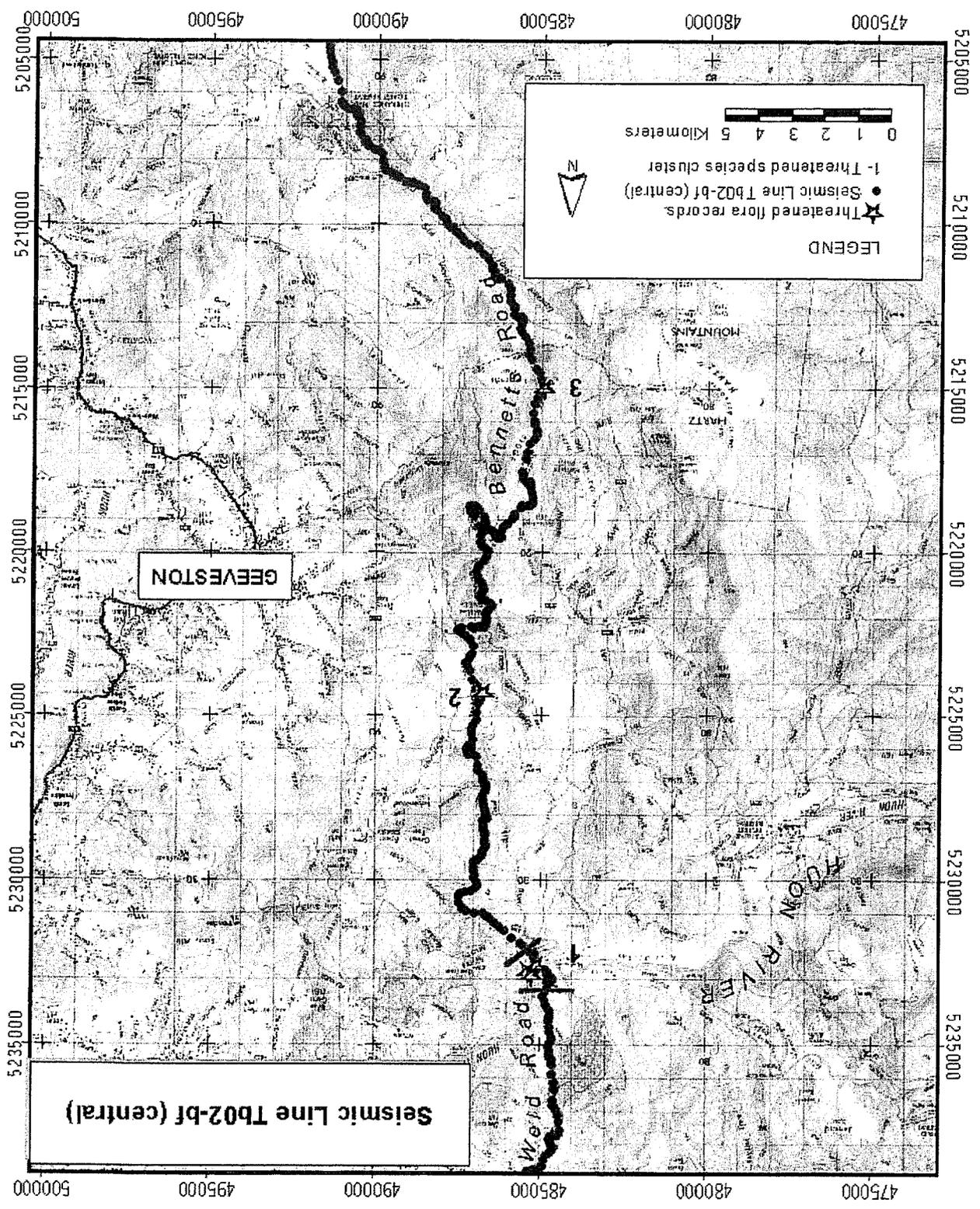
N

**NEW NORFOLK**

**HAMILTON**

**Seismic Line Tb02-bd (south)**





Seismic Line Tb02-bf (central)

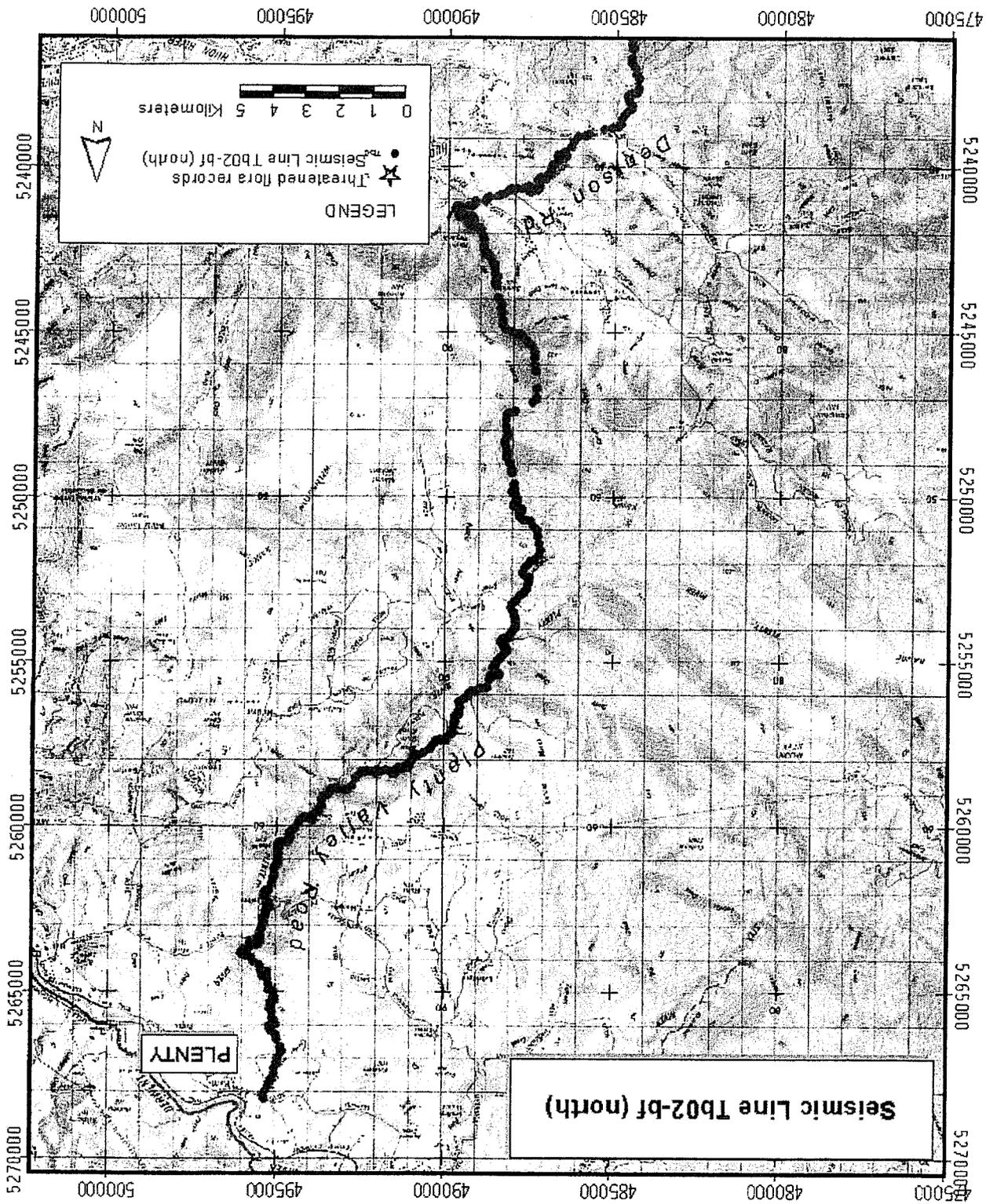
GEEVESTON

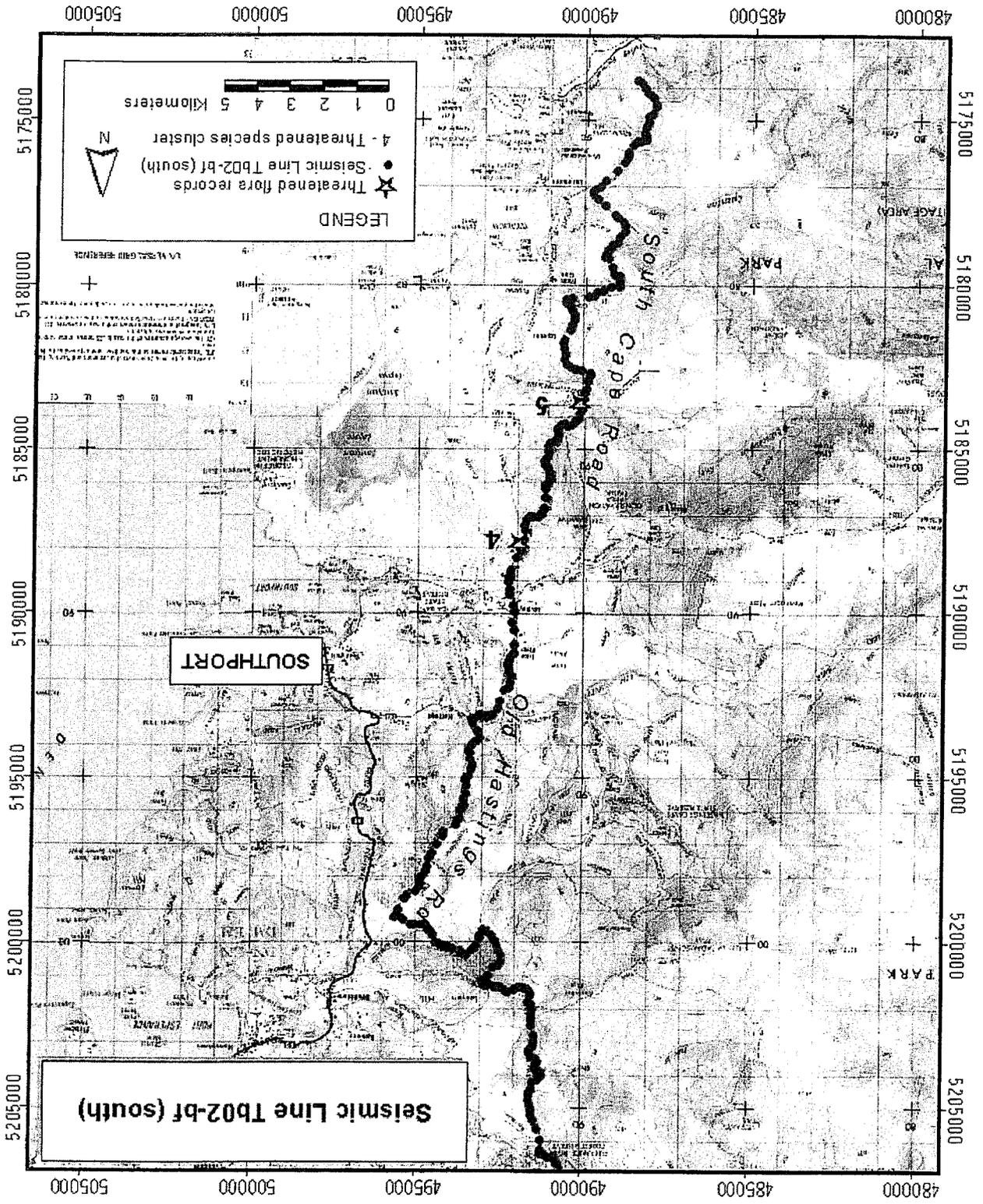
**LEGEND**

- ★ Threatened flora records
- Seismic Line Tb02-bf (central)
- 1 Threatened species cluster

0 1 2 3 4 5 Kilometers

N





**LEGEND**

- ★ Threatened flora records
- Seismic Line Tb02-bf (south)
- 4 - Threatened species cluster

0 1 2 3 4 5 Kilometers

N

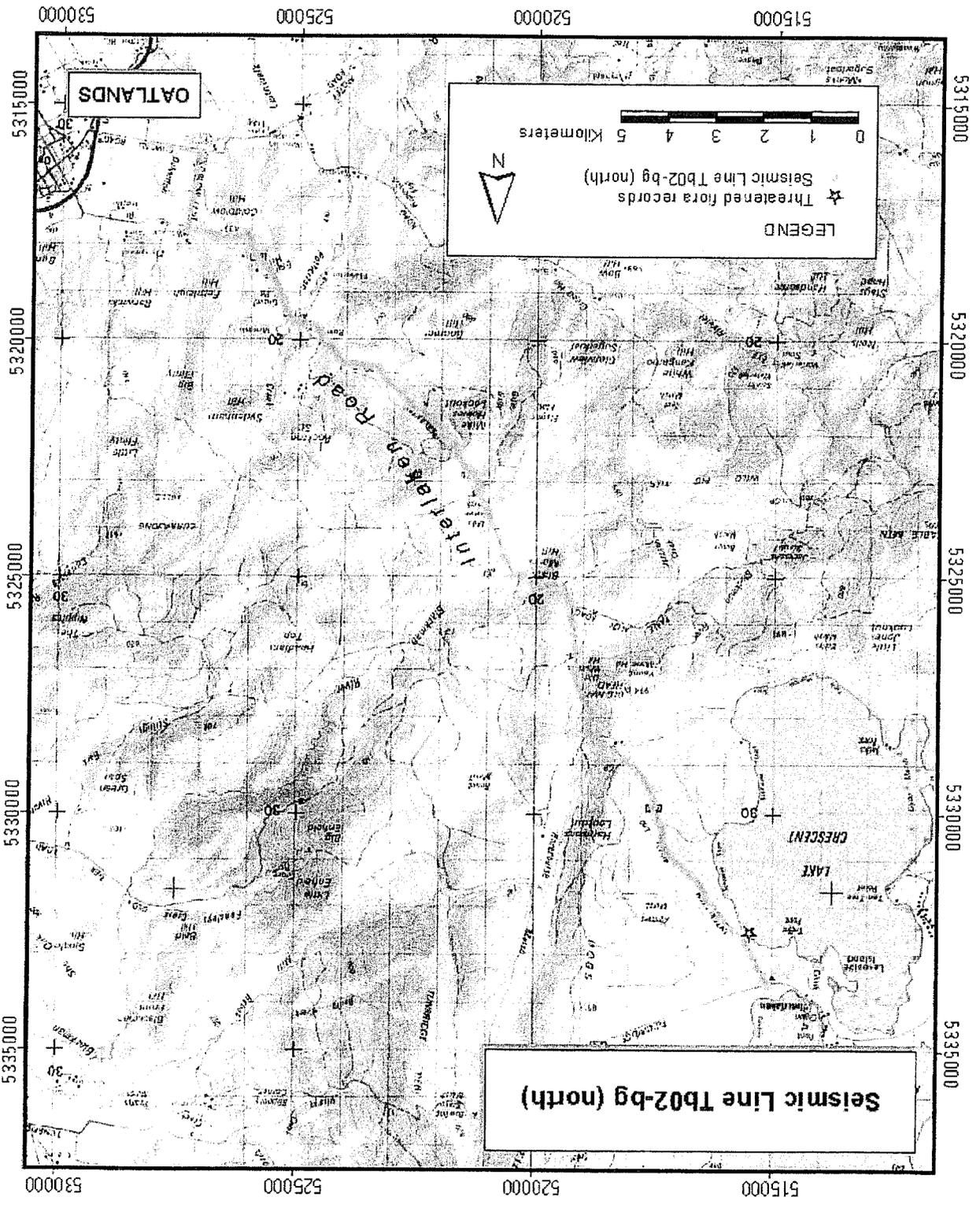
**SOUTHPORT**

**Seismic Line Tb02-bf (south)**

480000 485000 490000 495000 500000 505000

5175000  
5180000  
5185000  
5190000  
5195000  
5200000  
5205000

5175000  
5180000  
5185000  
5190000  
5195000  
5200000  
5205000



OATLANDS

**LEGEND**

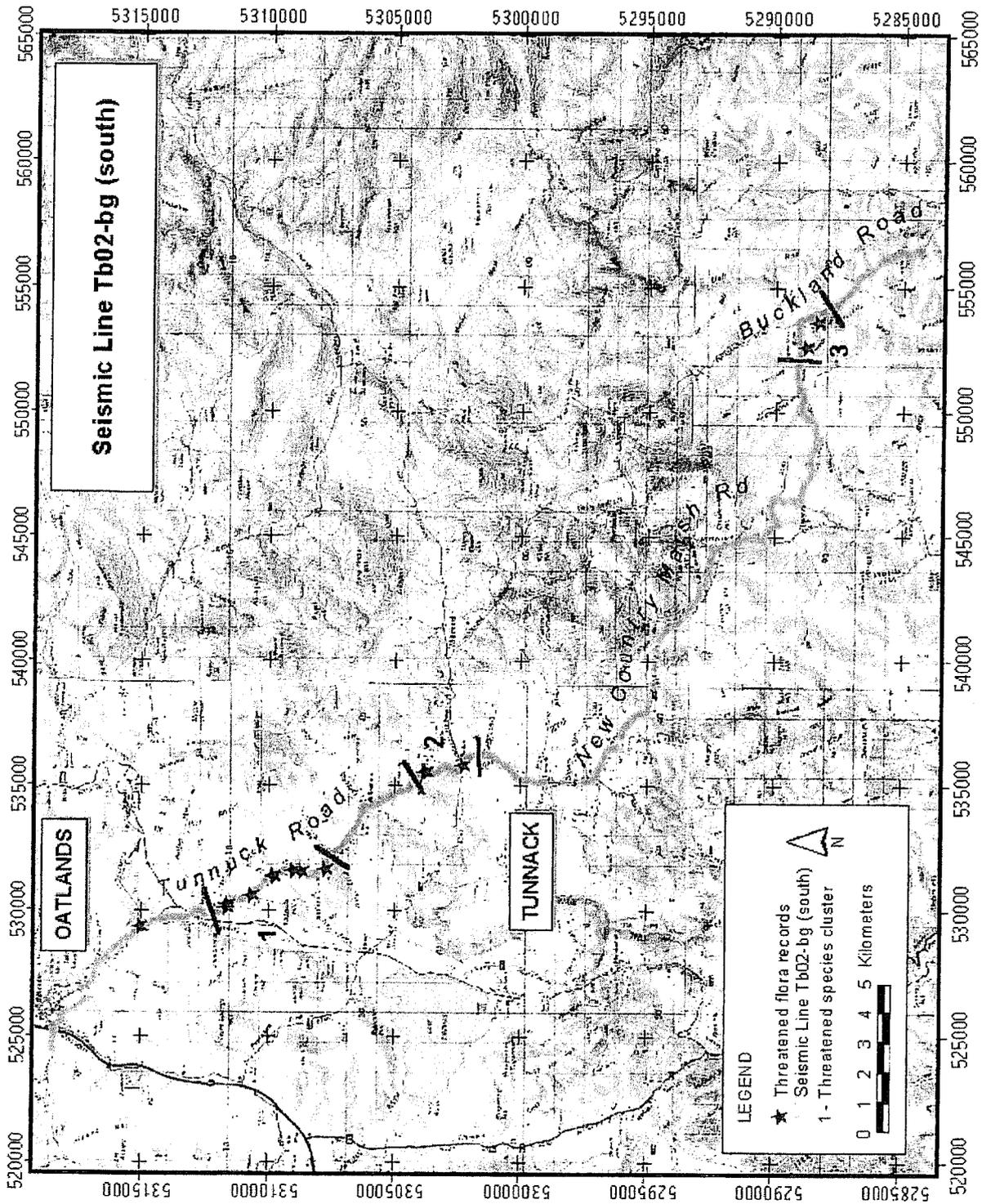
★ Threatened flora records

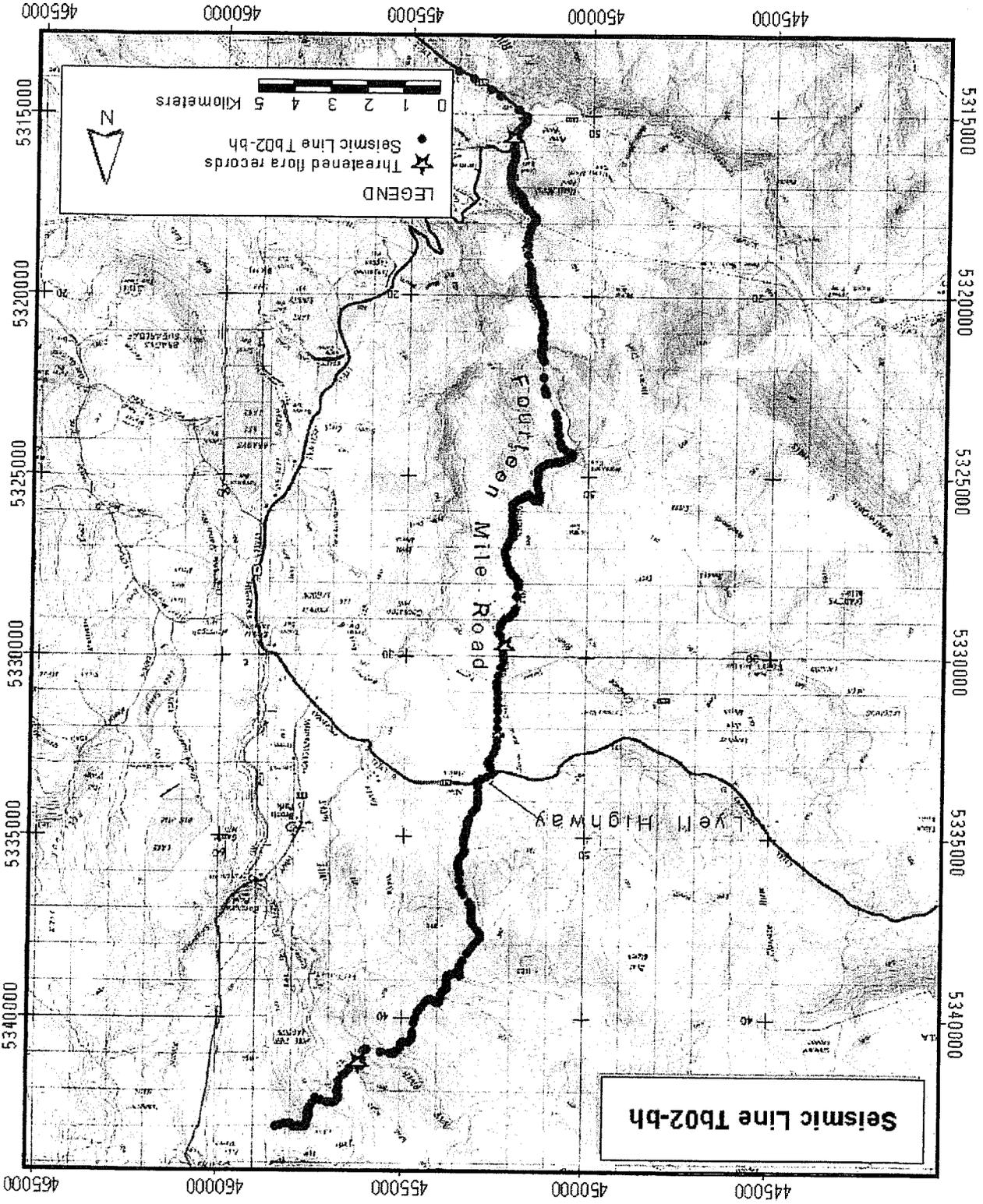
Seismic Line Tb02-bg (north)

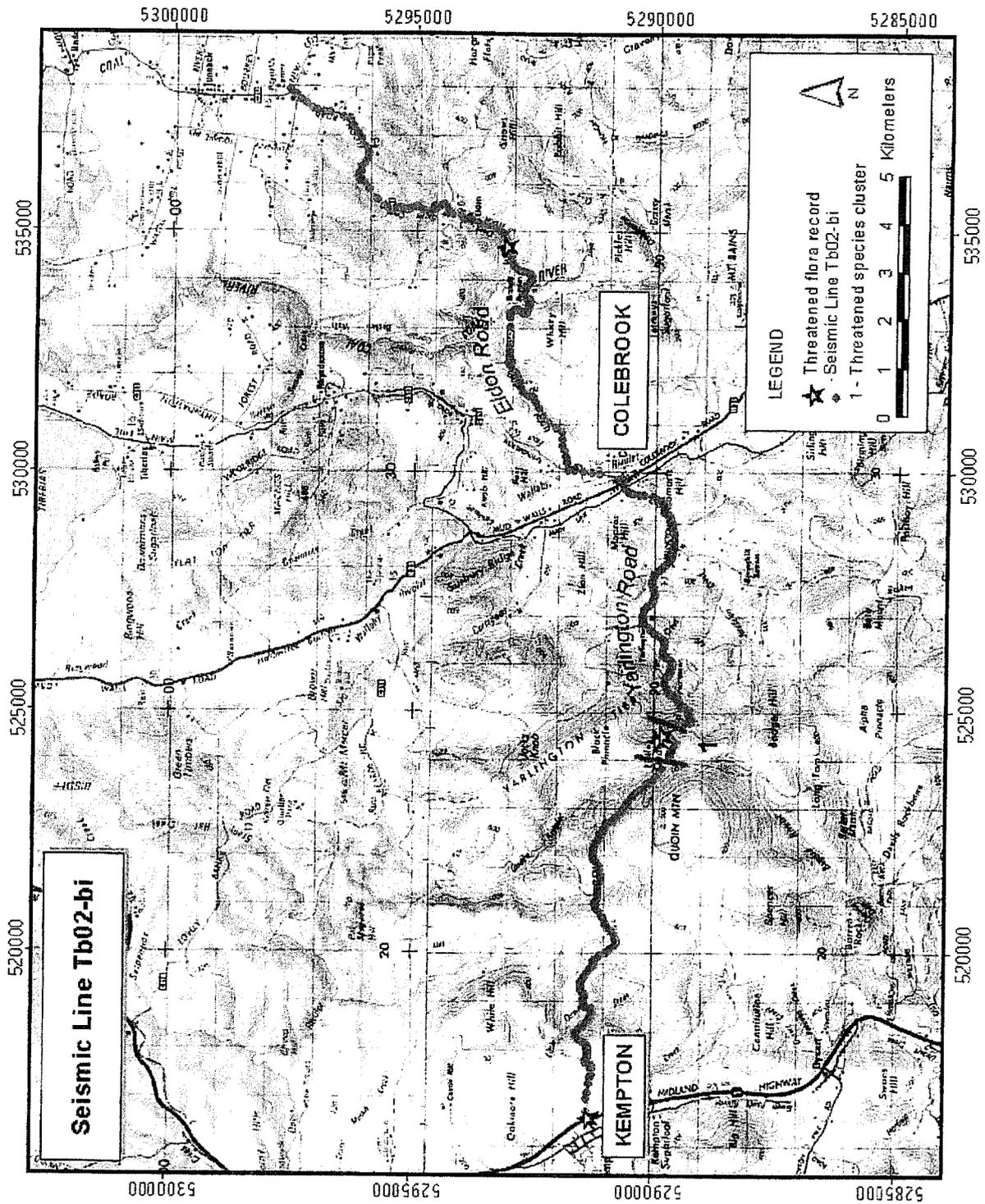
0 1 2 3 4 5 Kilometers

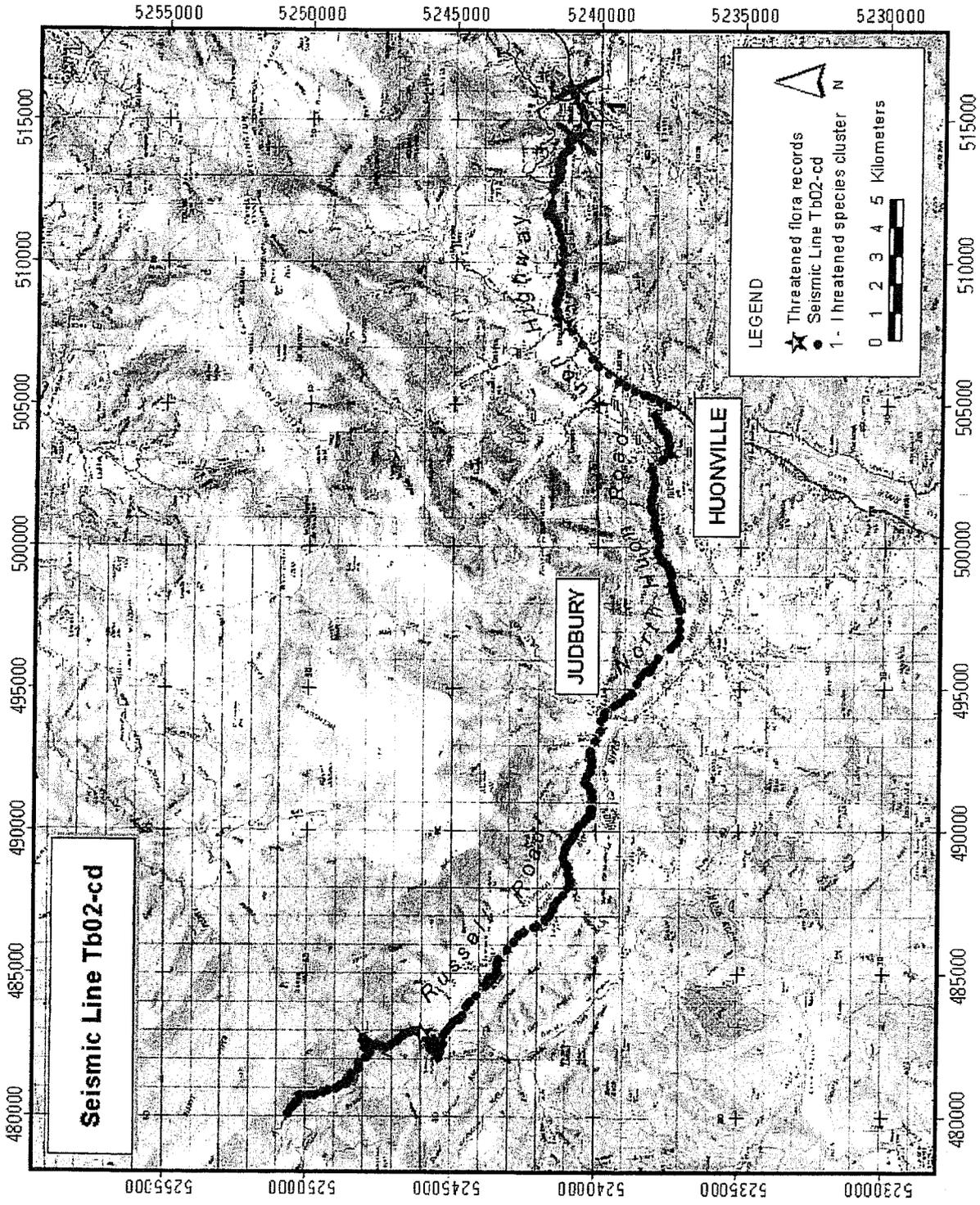
N

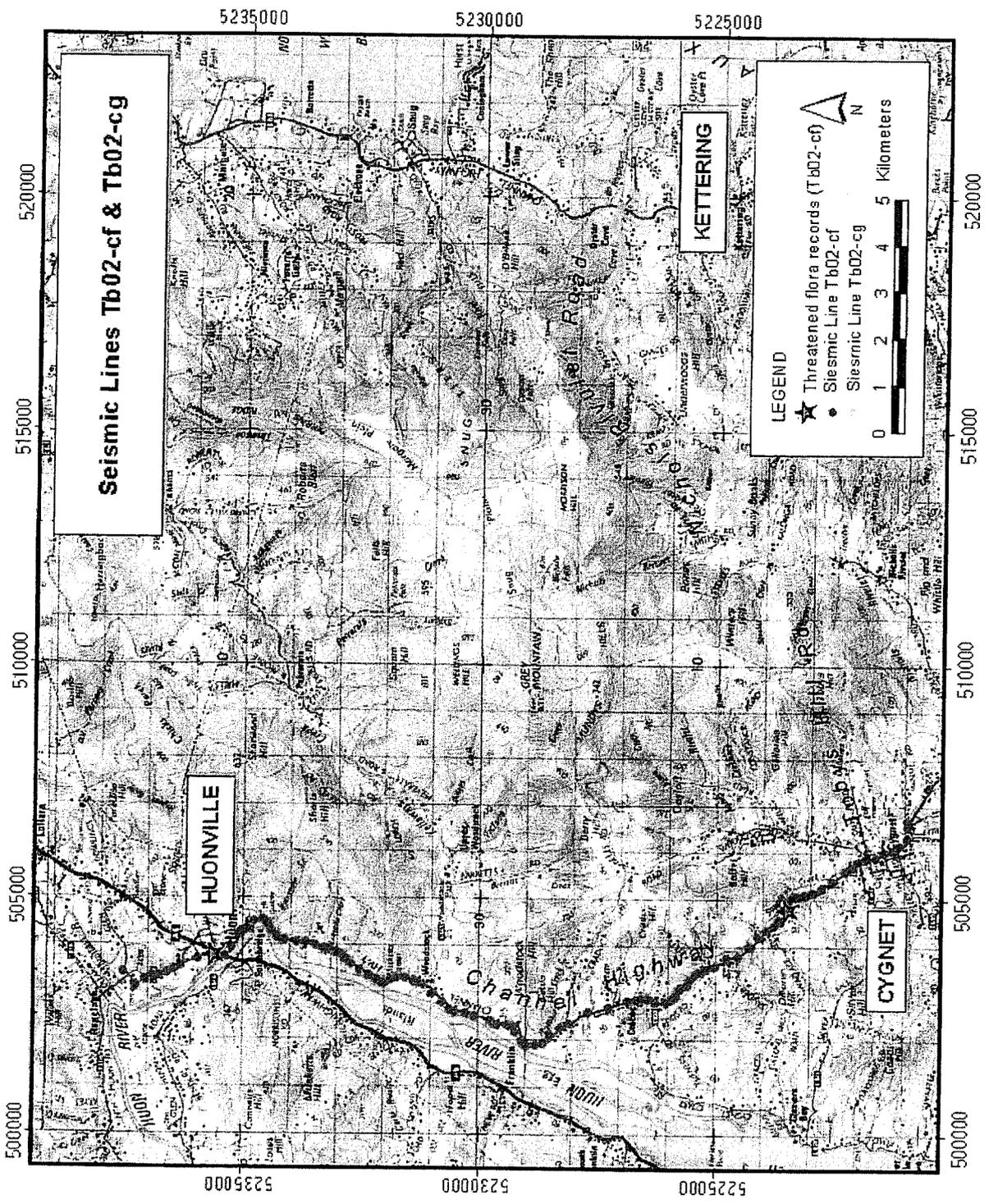
Seismic Line Tb02-bg (north)

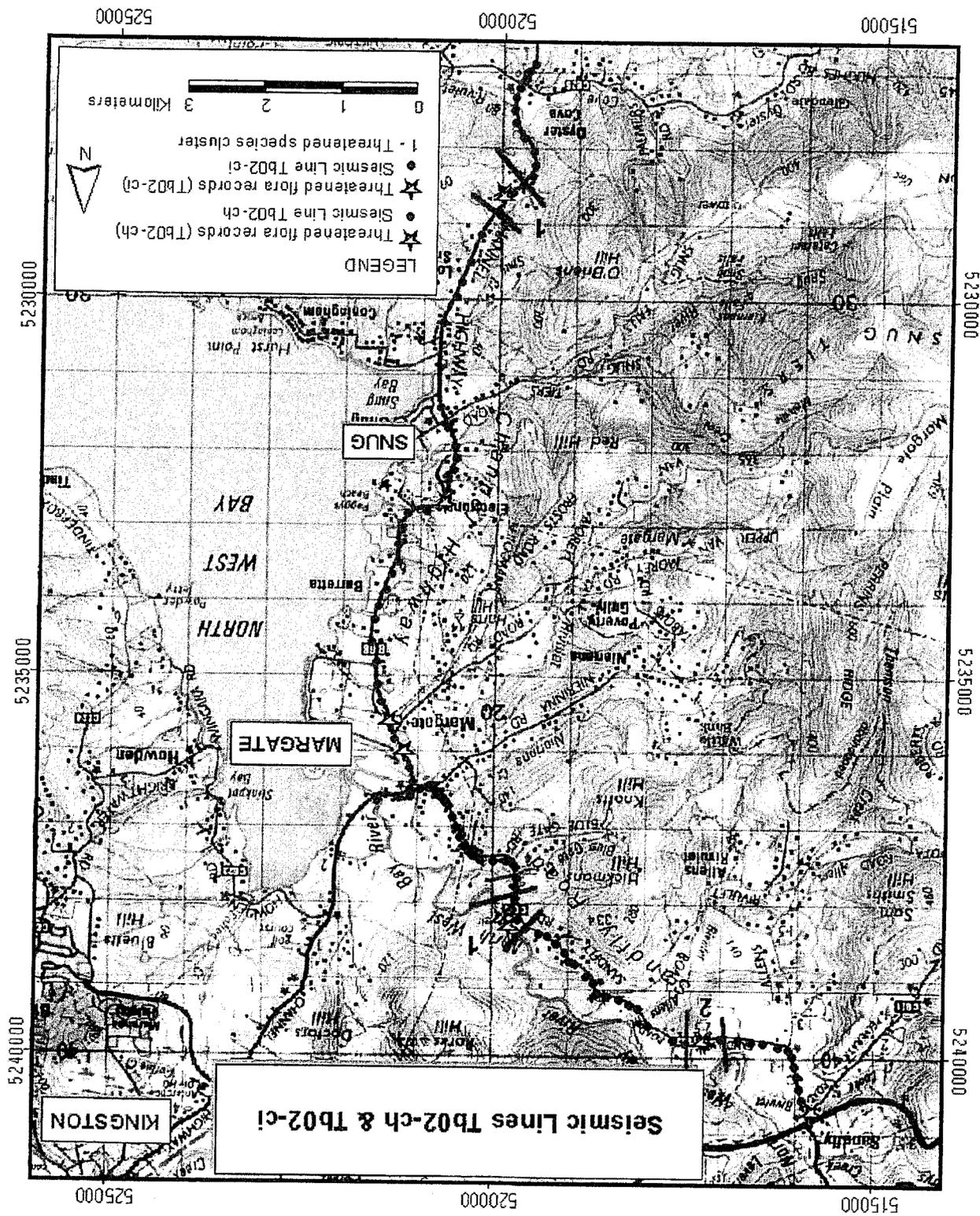












**Seismic Lines Tb02-ch & Tb02-ci**

**LEGEND**

- ★ Threatened flora records (Tb02-ch)
- Seismic Line Tb02-ch
- ★ Threatened flora records (Tb02-ci)
- Seismic Line Tb02-ci
- 1 - Threatened species cluster

0 1 2 3 Kilometers

N

525000 520000 515000

5230000 5235000 5240000

SNUG

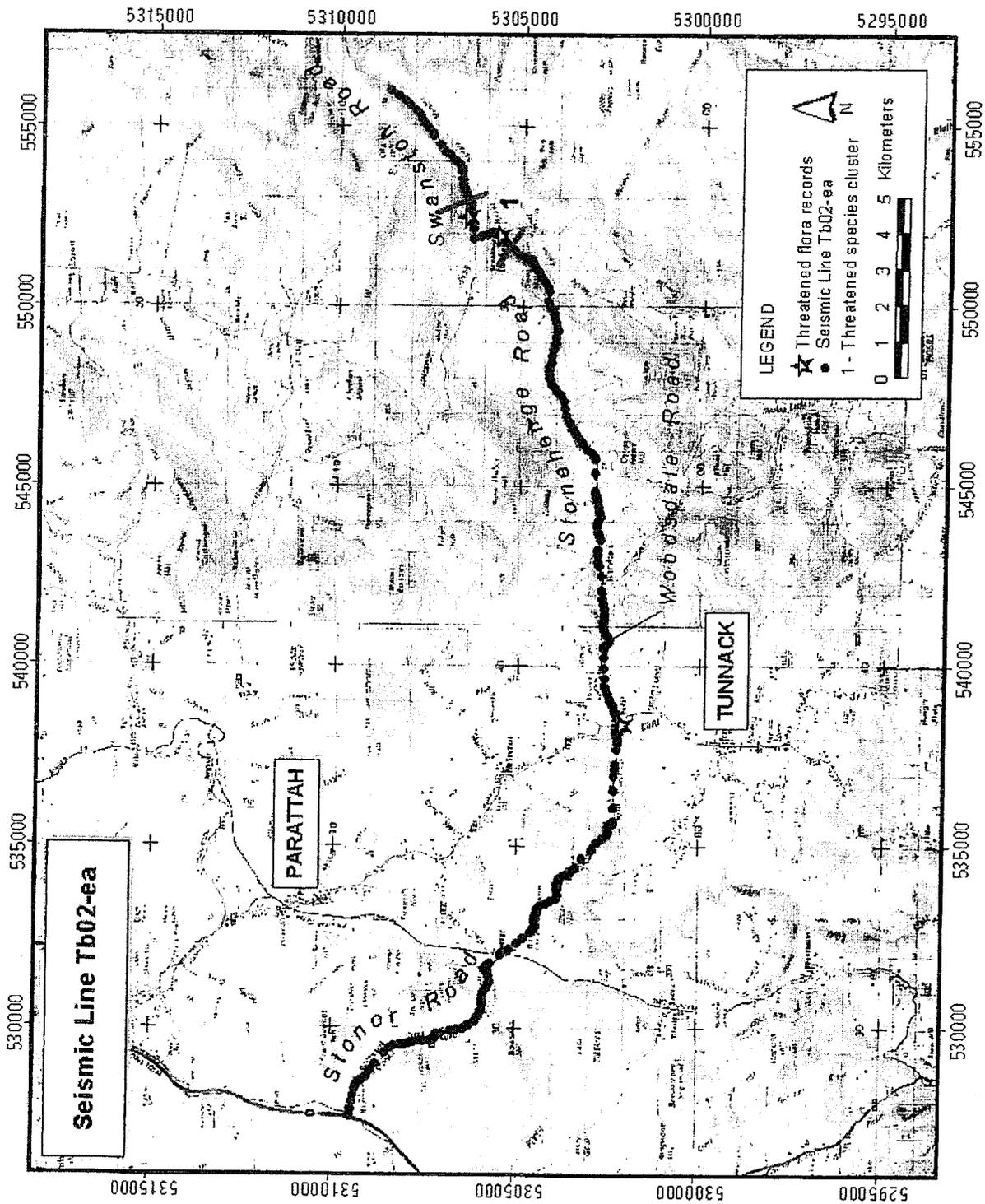
MARGATE

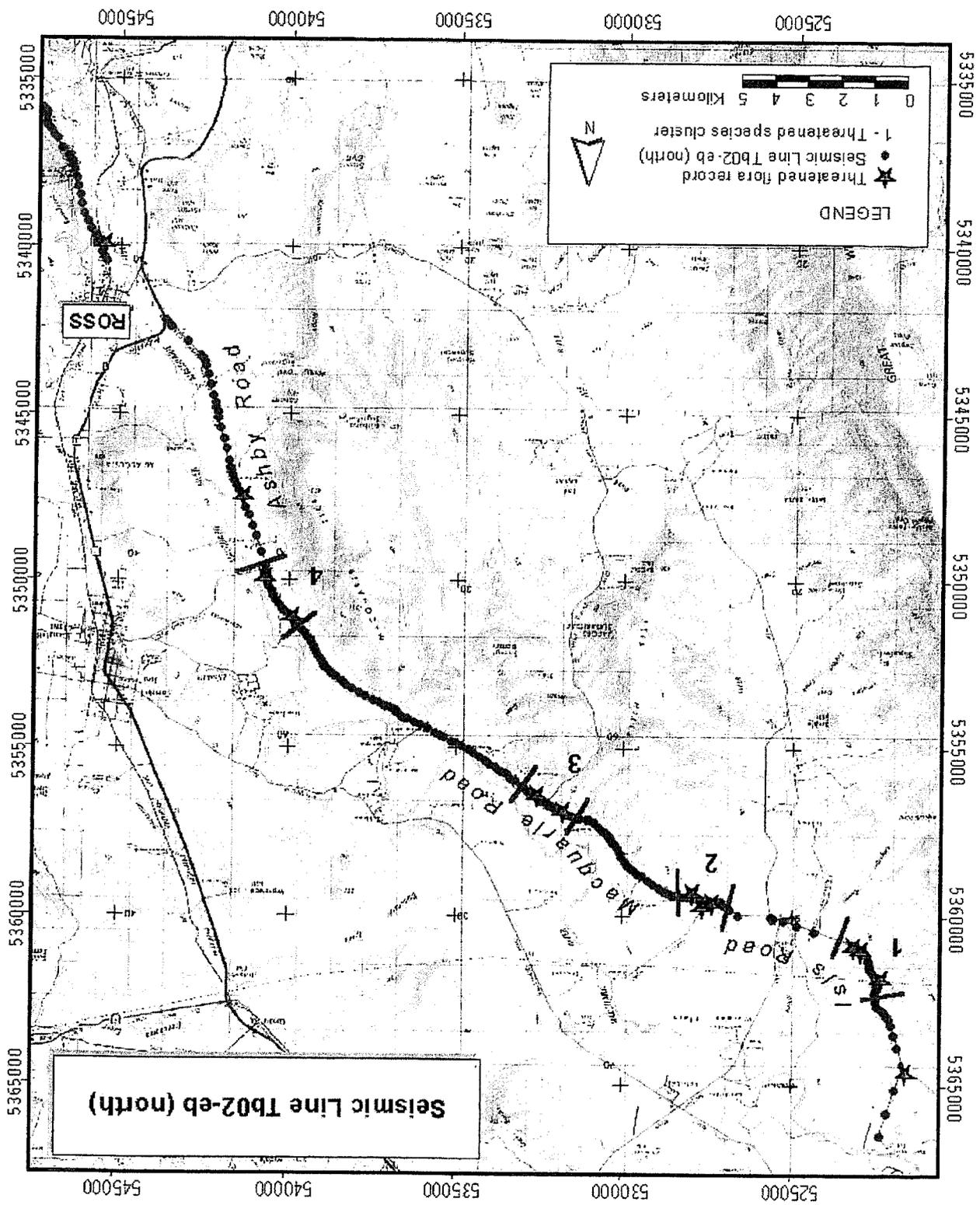
WEST NORTH BAY

KINGSTON

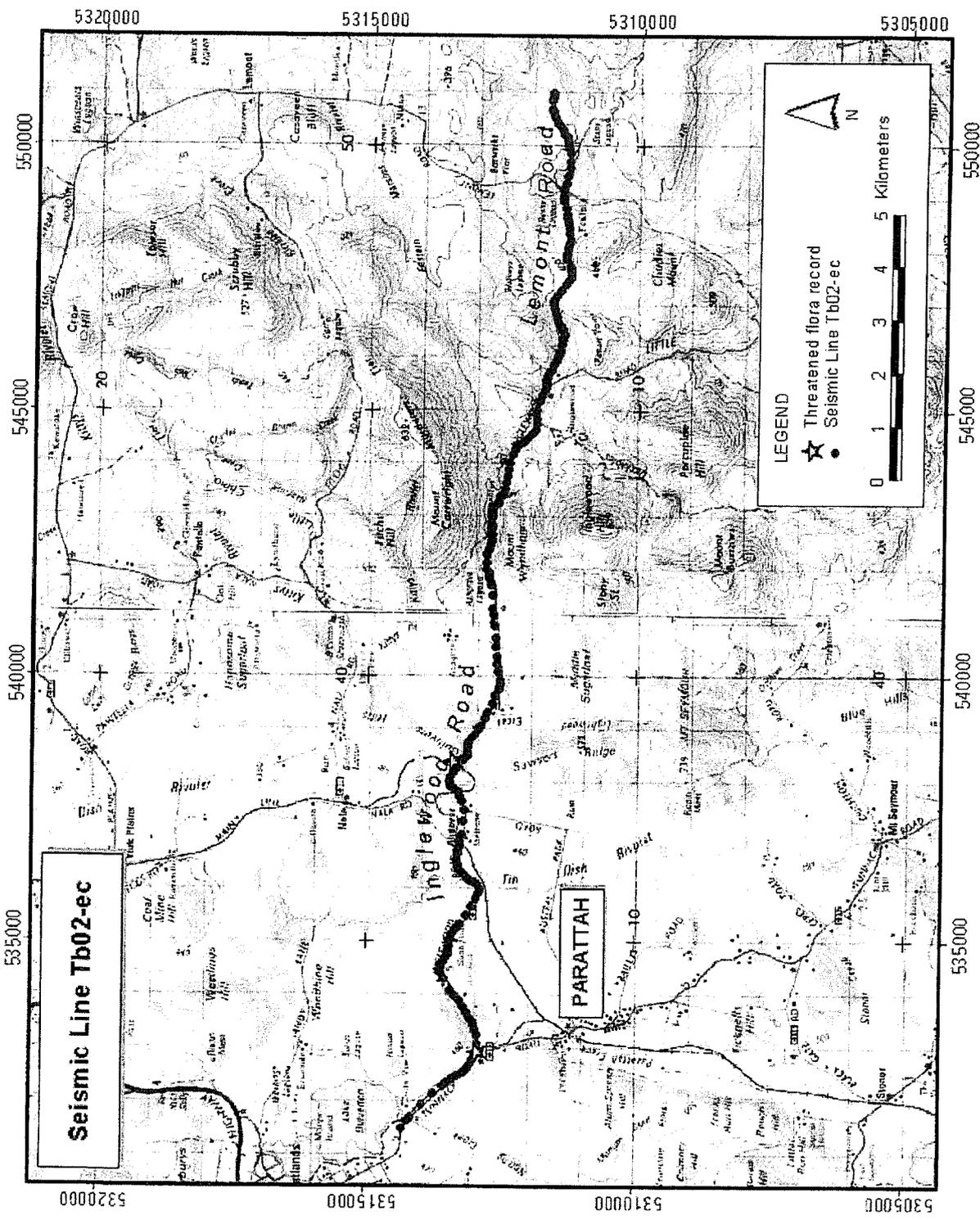
525000 520000 515000

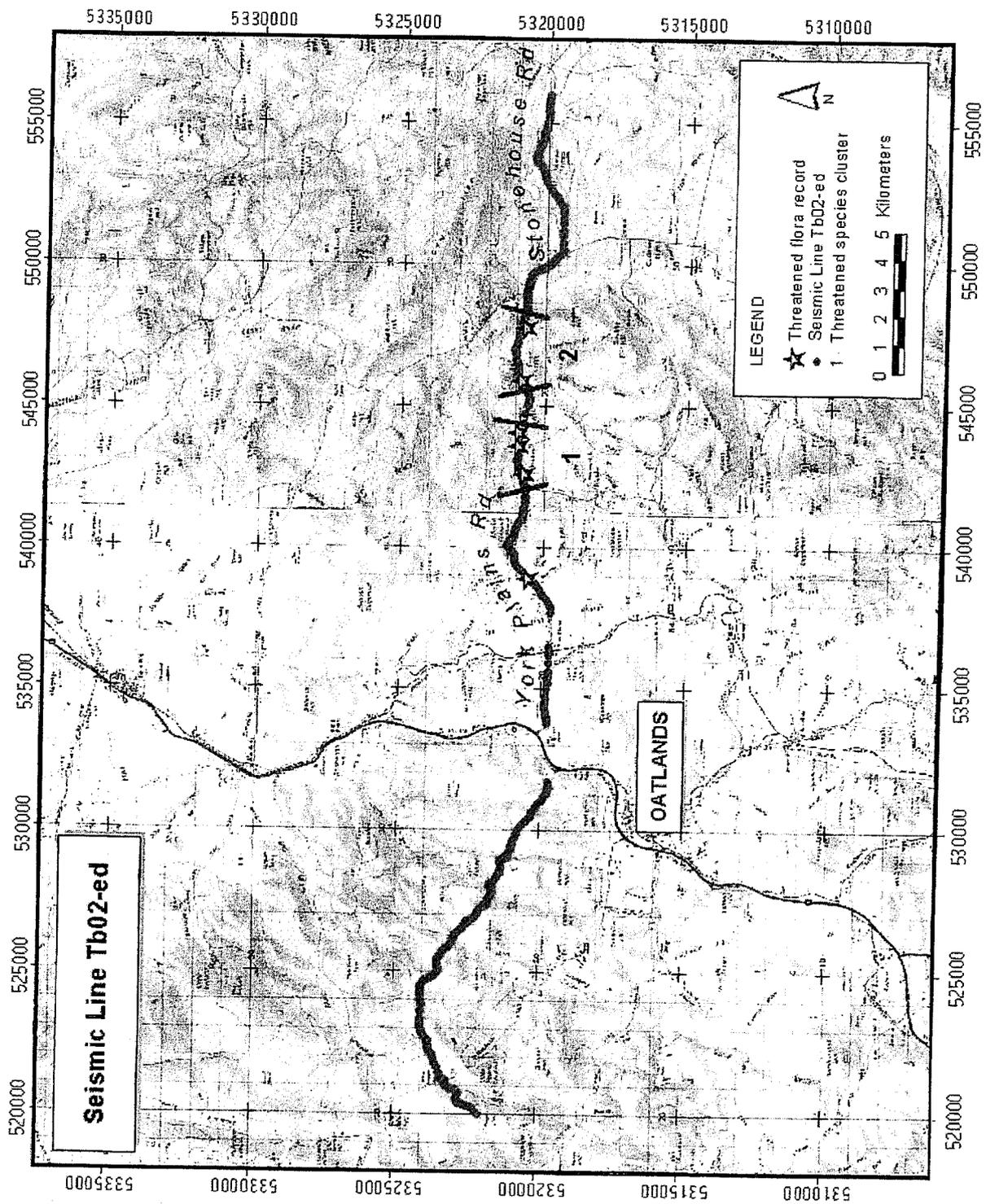
5230000 5235000 5240000

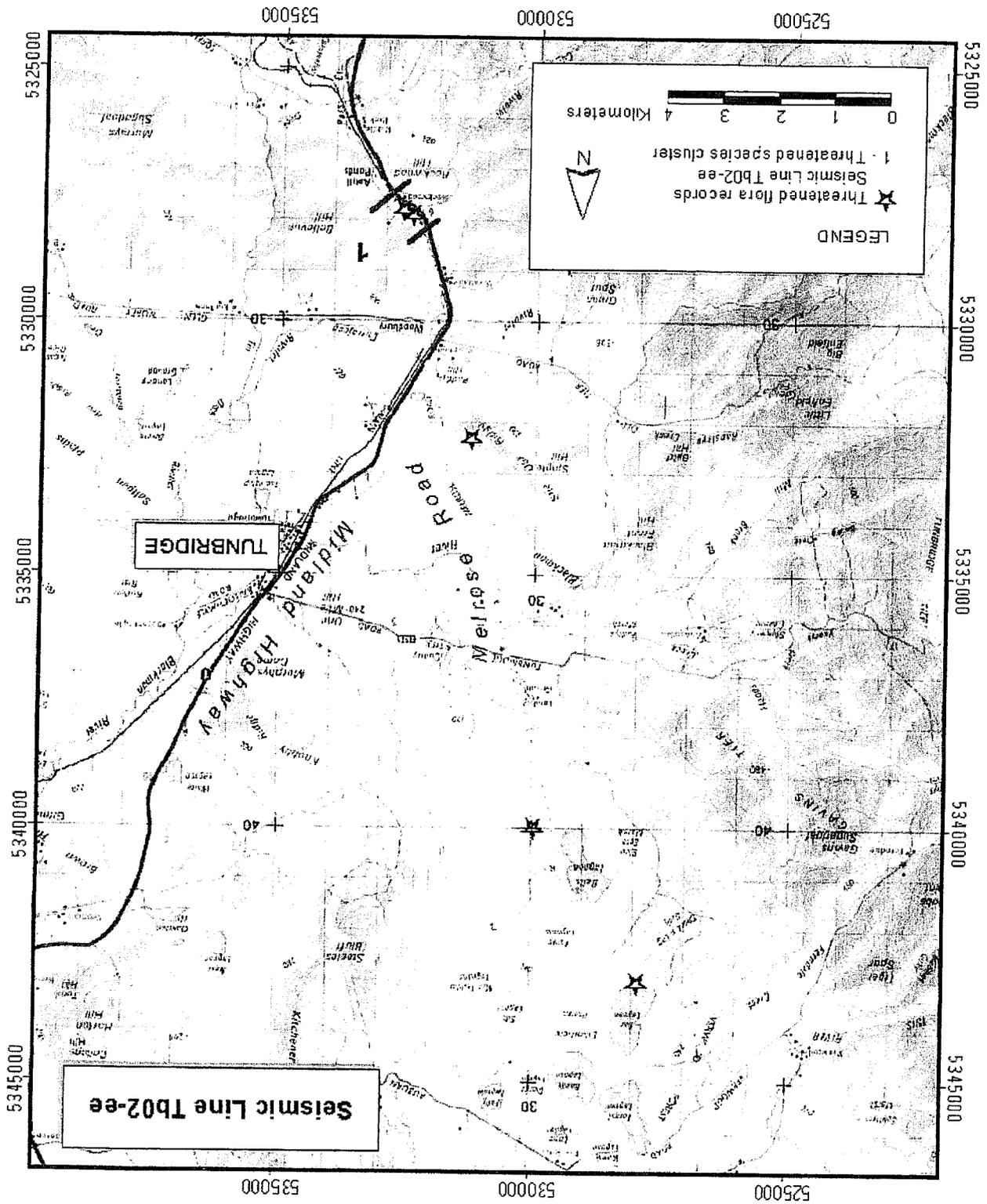


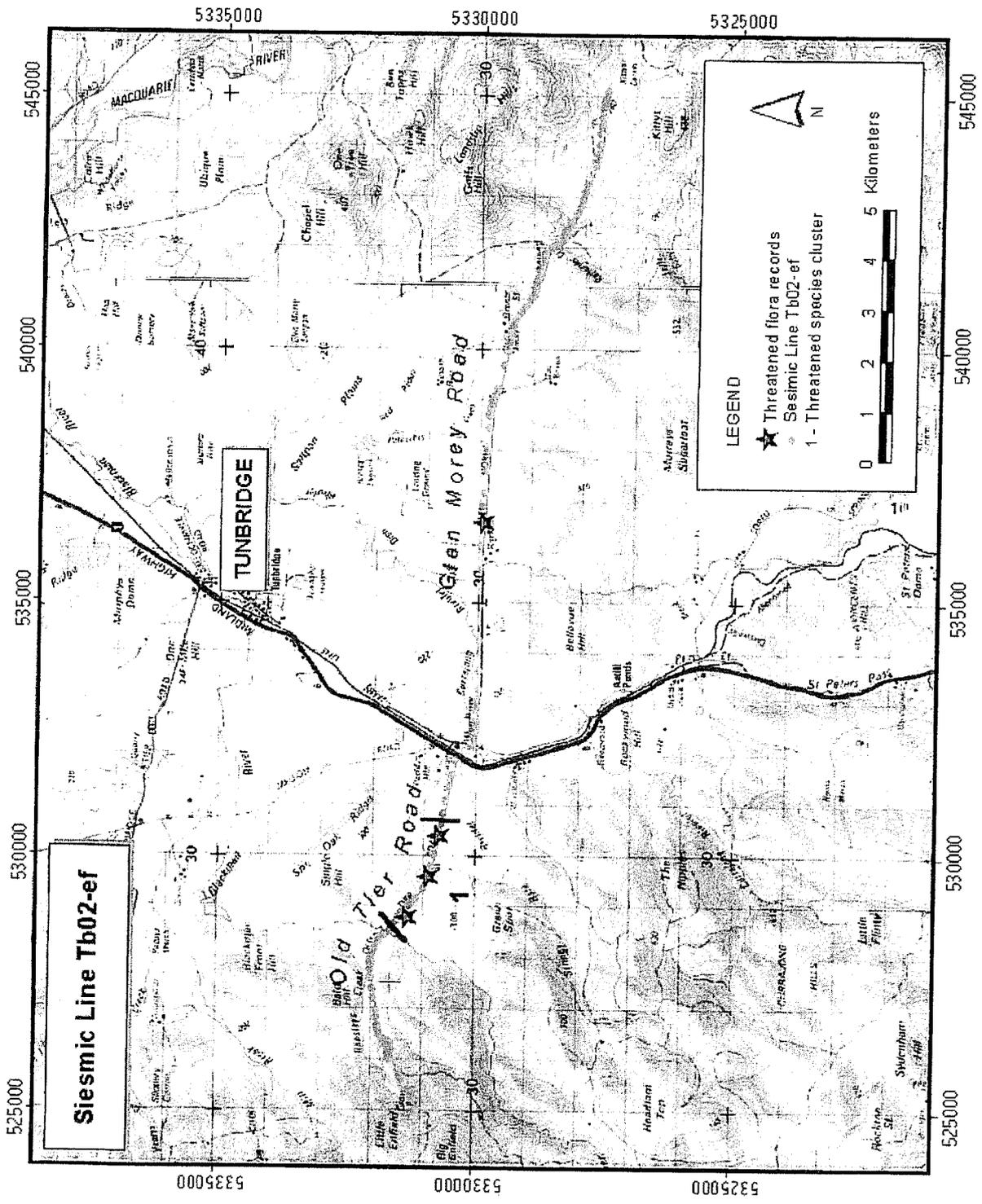












Siesmic Line Tb02-ef

TUNBRIDGE

Old Tier Road

Glen Morey Road

**LEGEND**

- ★ Threatened flora records
- Siesmic Line Tb02-ef
- 1 - Threatened species cluster

0 1 2 3 4 5 Kilometers

N

525000 530000 535000 540000 545000

5325000 5330000 5335000

Macquarie River

Tunbridge River

Chapel Hill

Ben Toppes Hill

Chapel Hill

St Peter's Park

St Peter's Church

St Peter's Hill

St Peter's Dam

St Peter's Pond

St Peter's Lake

St Peter's Stream

St Peter's Creek

St Peter's Drain

St Peter's Embankment

St Peter's Road

St Peter's Lane

St Peter's Alley

St Peter's Court

St Peter's Close

St Peter's Square

St Peter's Circus

St Peter's Green

St Peter's Park

St Peter's Church

St Peter's Hill

St Peter's Dam

St Peter's Pond

St Peter's Lake

St Peter's Stream

St Peter's Creek

St Peter's Drain

St Peter's Embankment

St Peter's Road

St Peter's Lane

St Peter's Alley

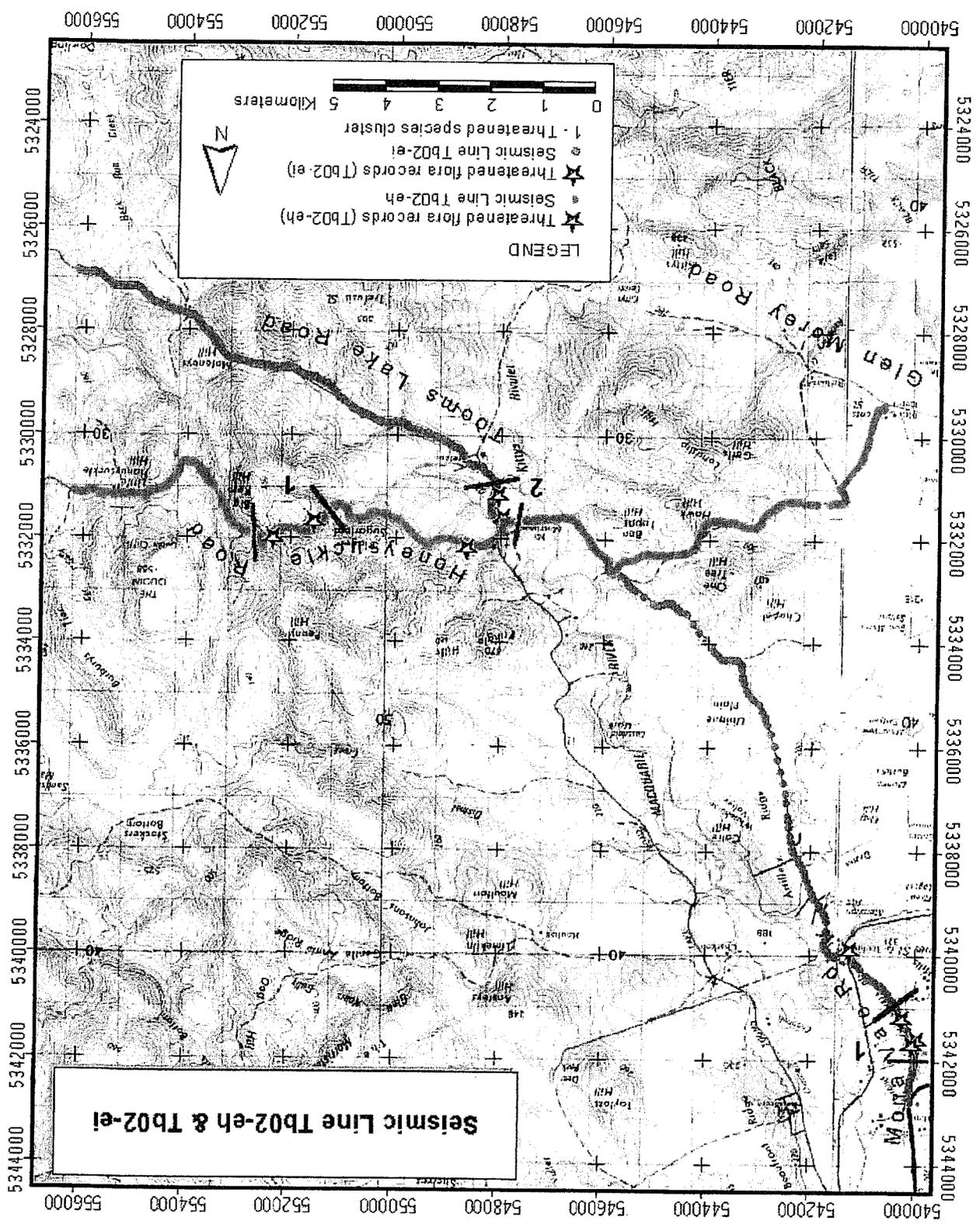
St Peter's Court

St Peter's Close

St Peter's Square

St Peter's Circus

St Peter's Green



**LEGEND**

- ★ Threatened flora records (TB02-eh)
- Seismic Line TB02-eh
- ★ Threatened flora records (TB02-ei)
- Seismic Line TB02-ei
- 1. Threatened species cluster

0 1 2 3 4 5 Kilometers

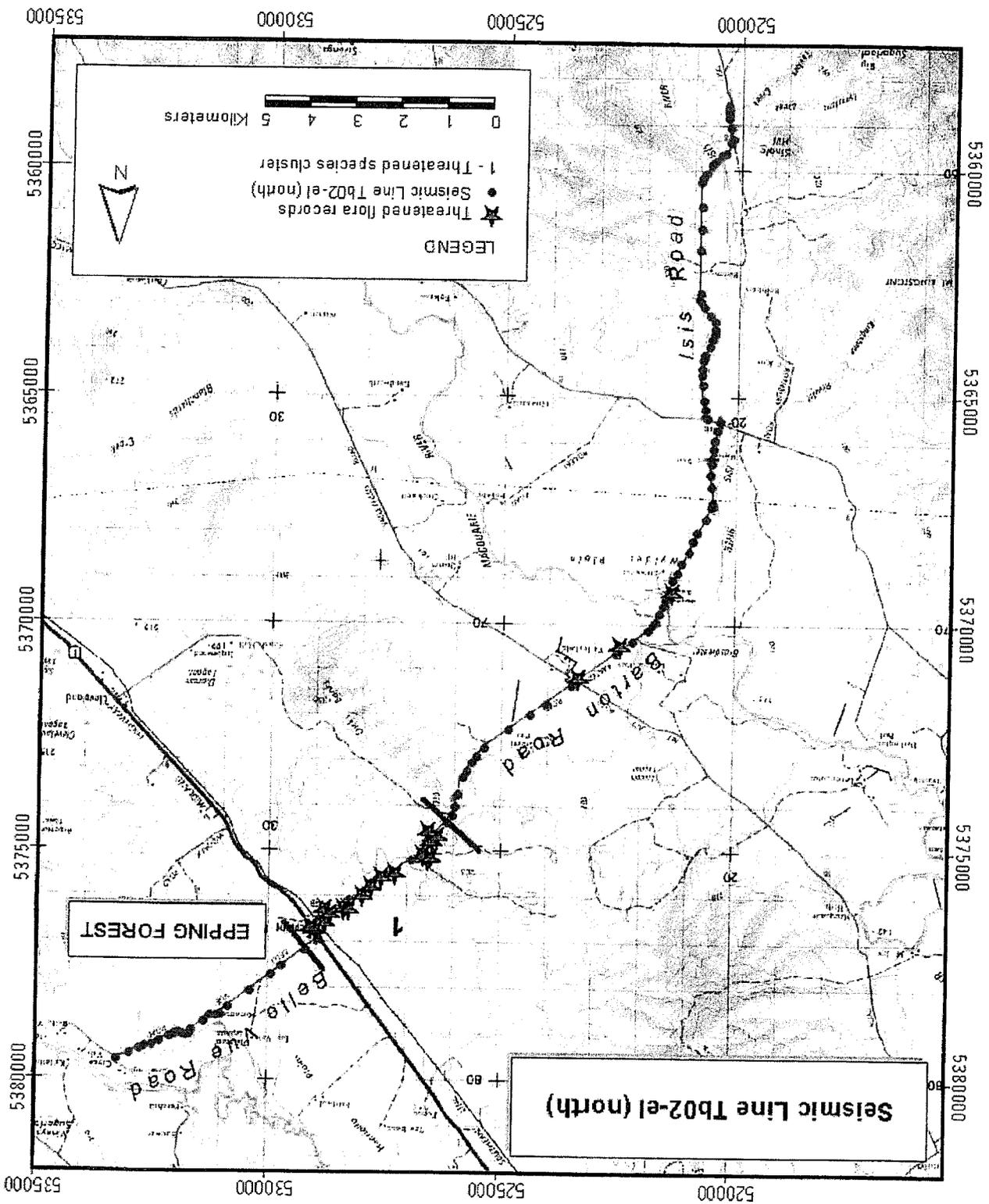
N

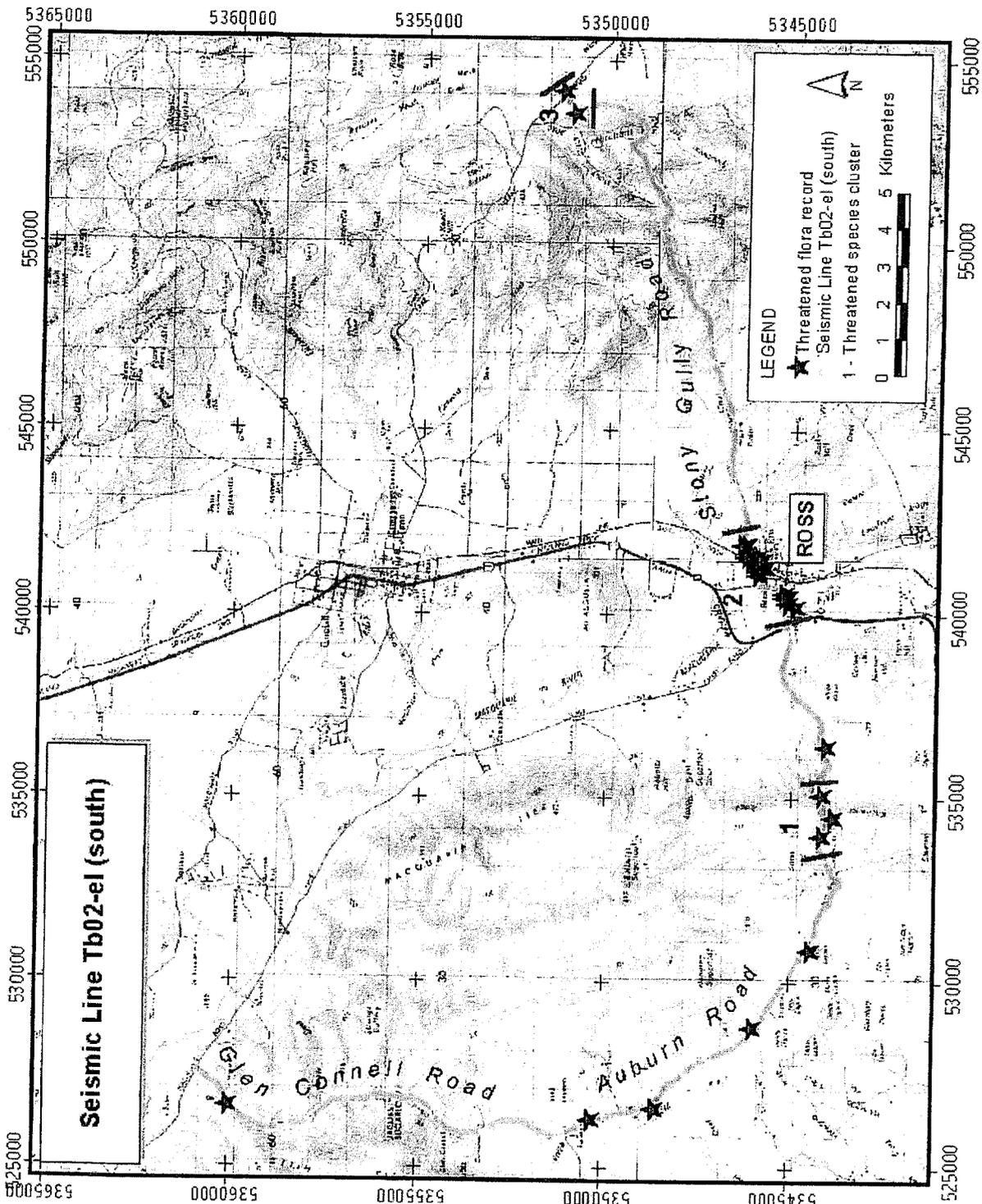
**Seismic Line TB02-eh & TB02-ei**

5324000 5326000 5328000 5330000 5332000 5334000 5336000 5338000 5340000 5342000 5344000

540000 542000 544000 546000 548000 550000 552000 554000 556000







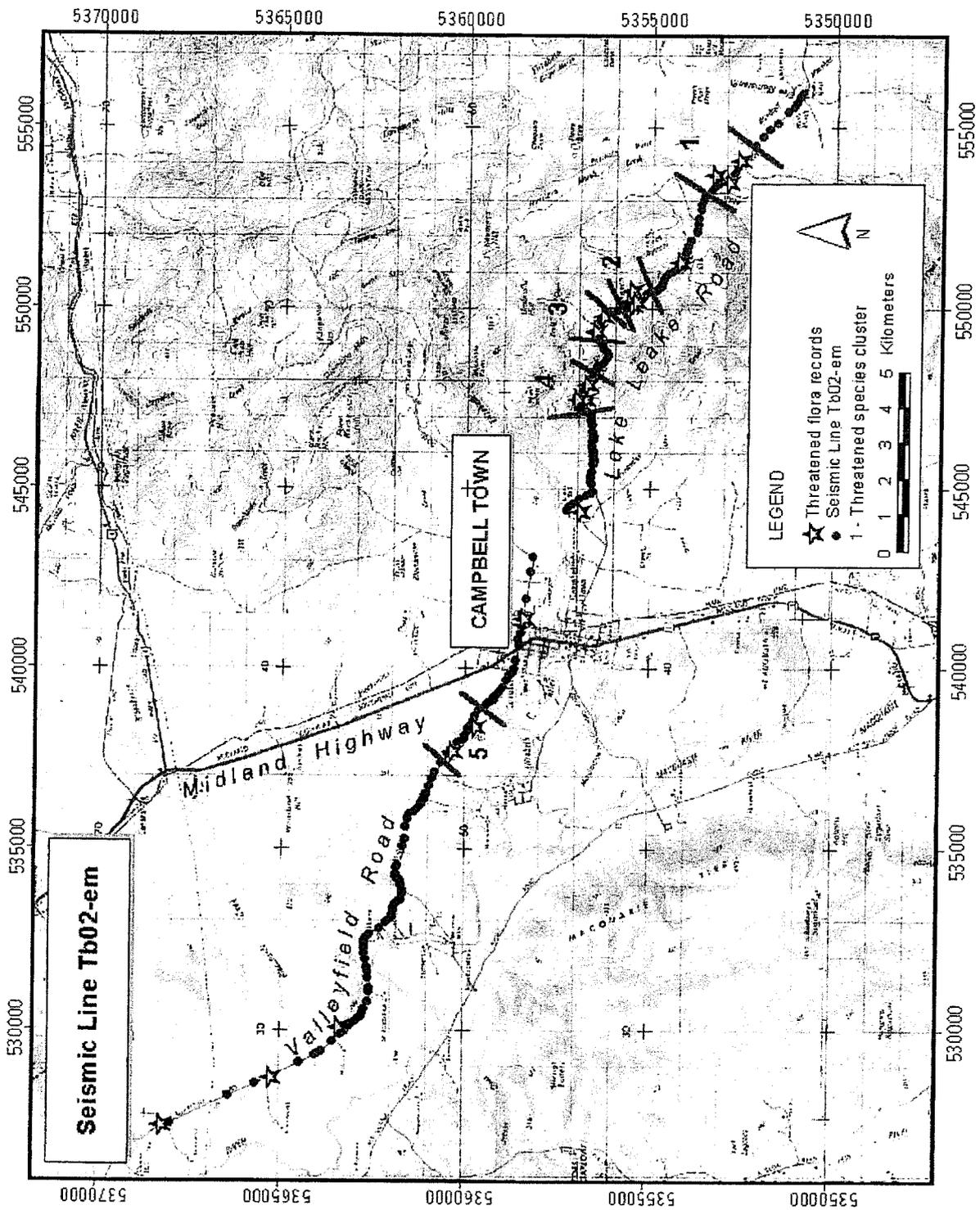
**Seismic Line Tb02-el (south)**

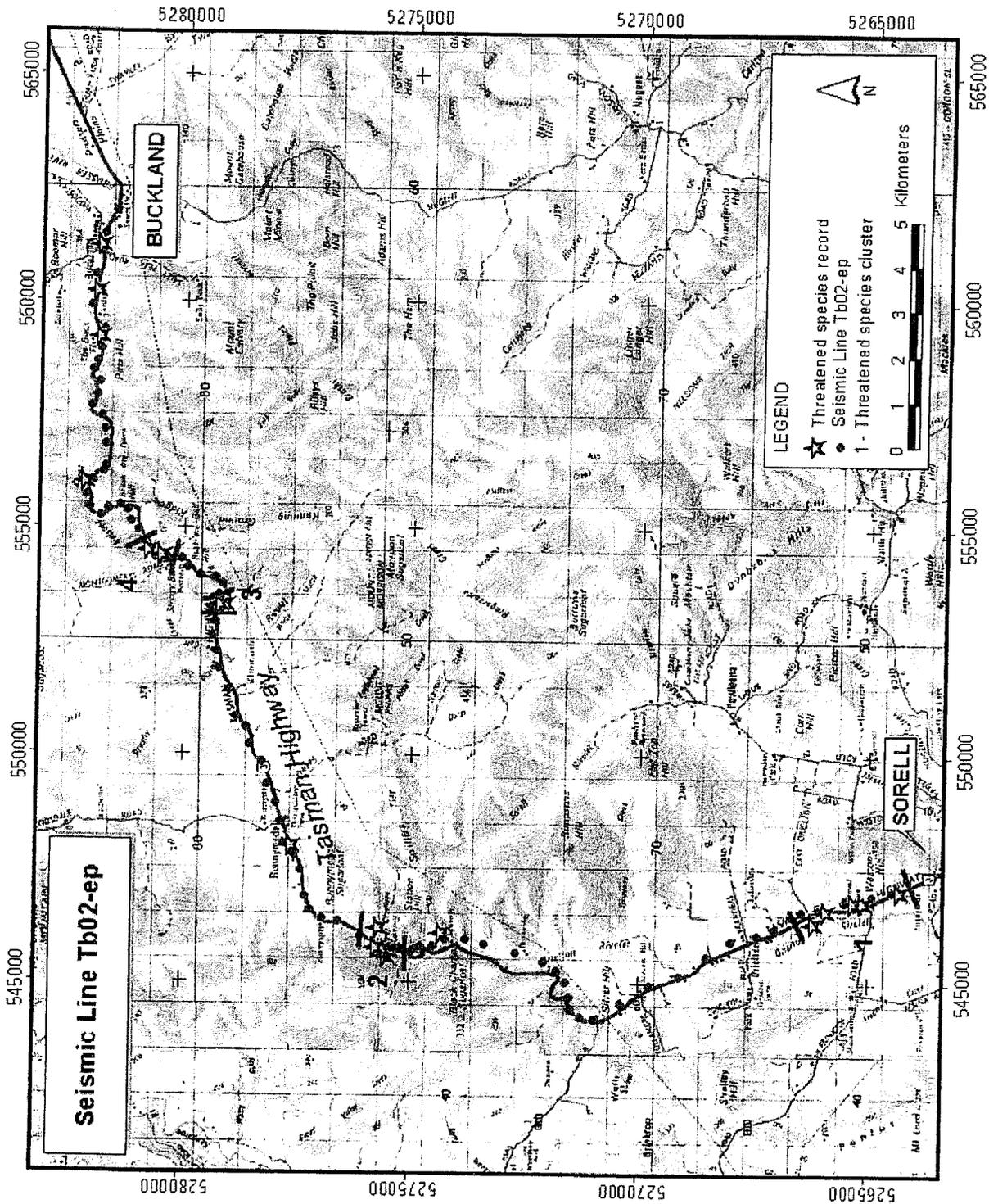
**LEGEND**

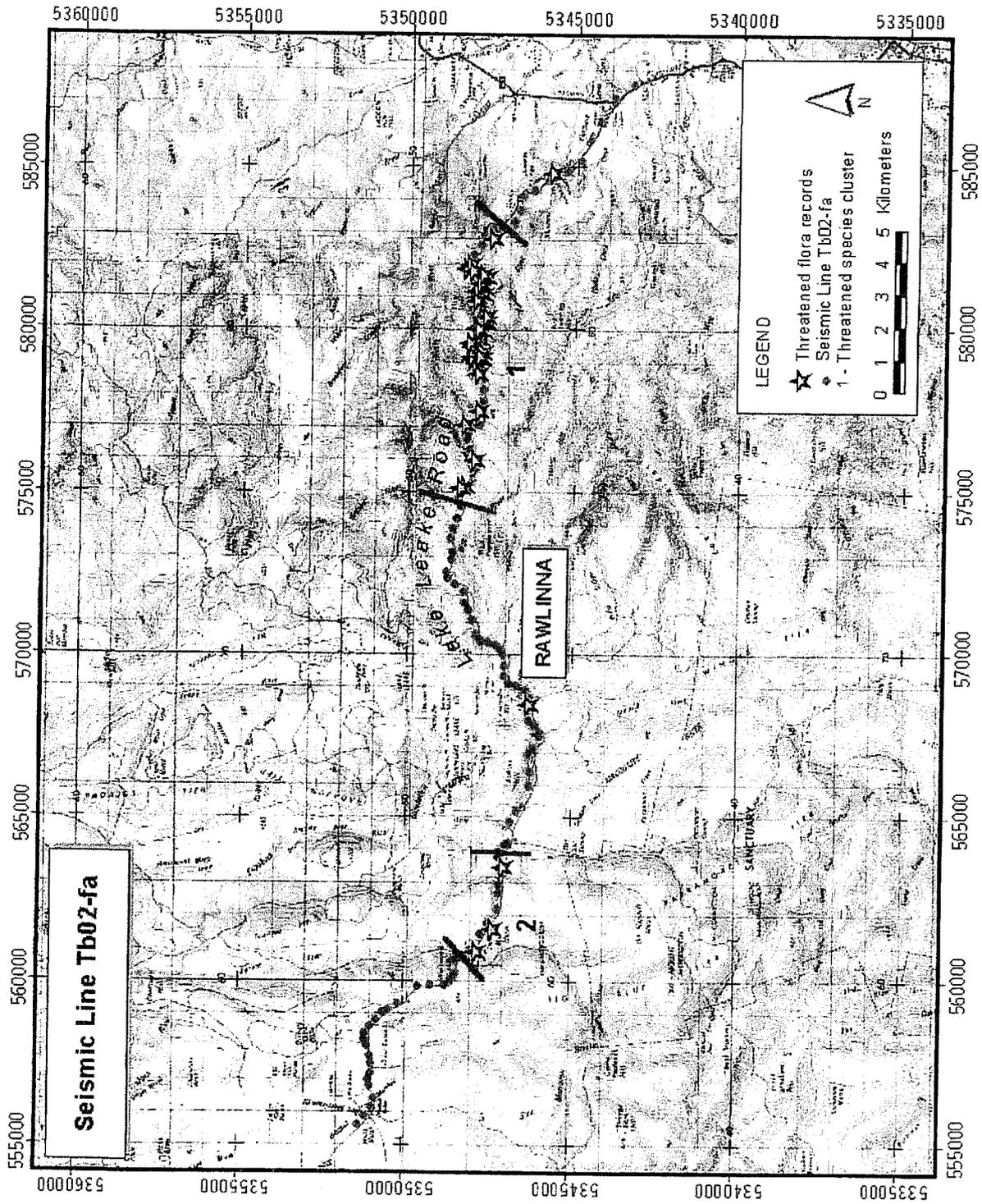
- ★ Threatened flora record
- ★ Seismic Line Tb02-el (south)
- 1 - Threatened species cluster

0 1 2 3 4 5 Kilometers









**Seismic Line Tb02-fa**

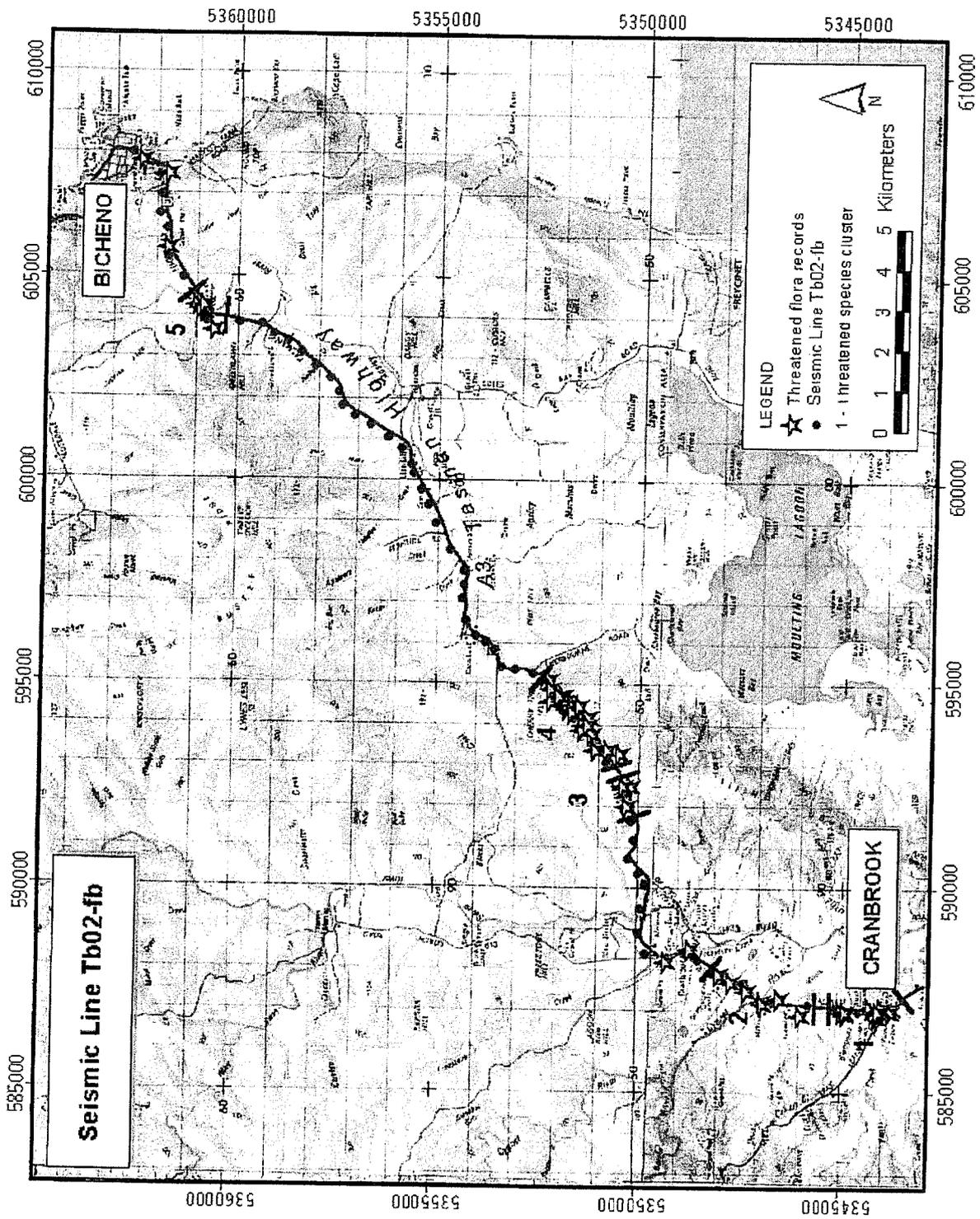
**RAWLINNA**

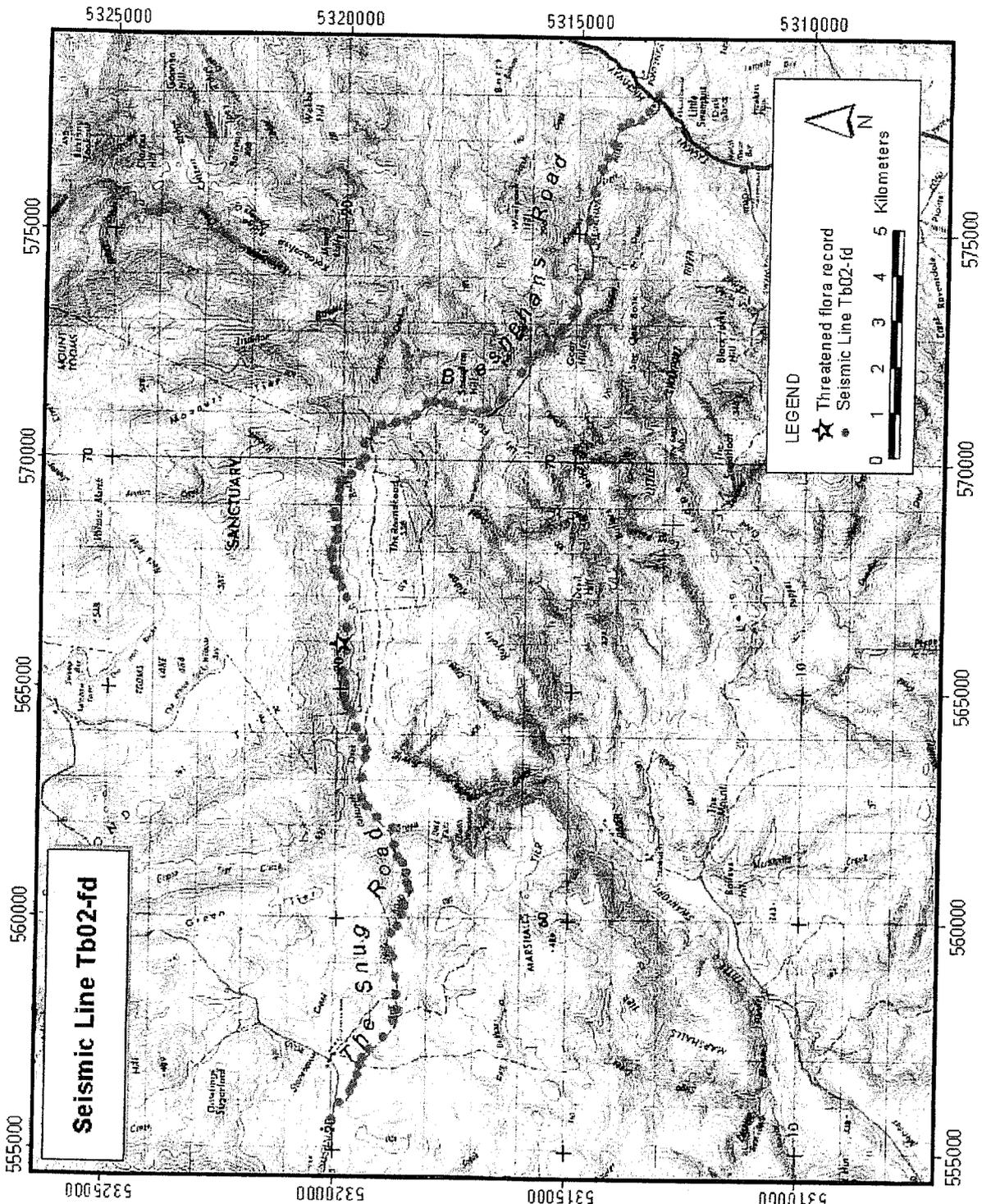
**LEGEND**

- ★ Threatened flora records
- Seismic Line Tb02-fa
- ⊕ Threatened species cluster

0 1 2 3 4 5 Kilometers







**Seismic Line Tb02-fd**

**LEGEND**

- ★ Threatened flora record
- Seismic Line Tb02-fd

0 1 2 3 4 5 Kilometers

N

5325000 5320000 5315000 5310000

575000 570000 565000 560000 555000

5325000 5320000 5315000 5310000

575000 570000 565000 560000 555000

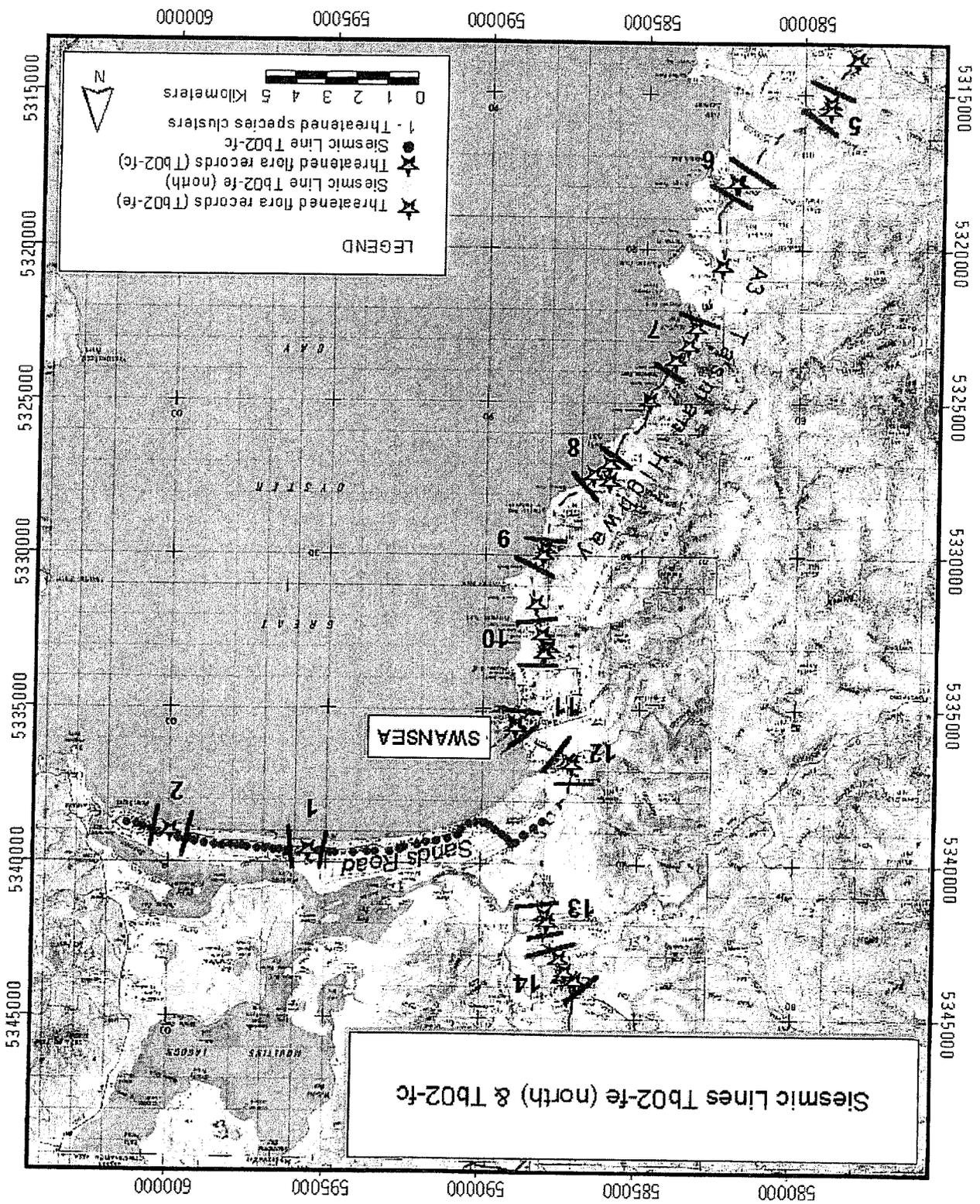
SANGTUARU

Seismic Line Tb02-fd

Threatened flora record

0 1 2 3 4 5 Kilometers

N



**LEGEND**

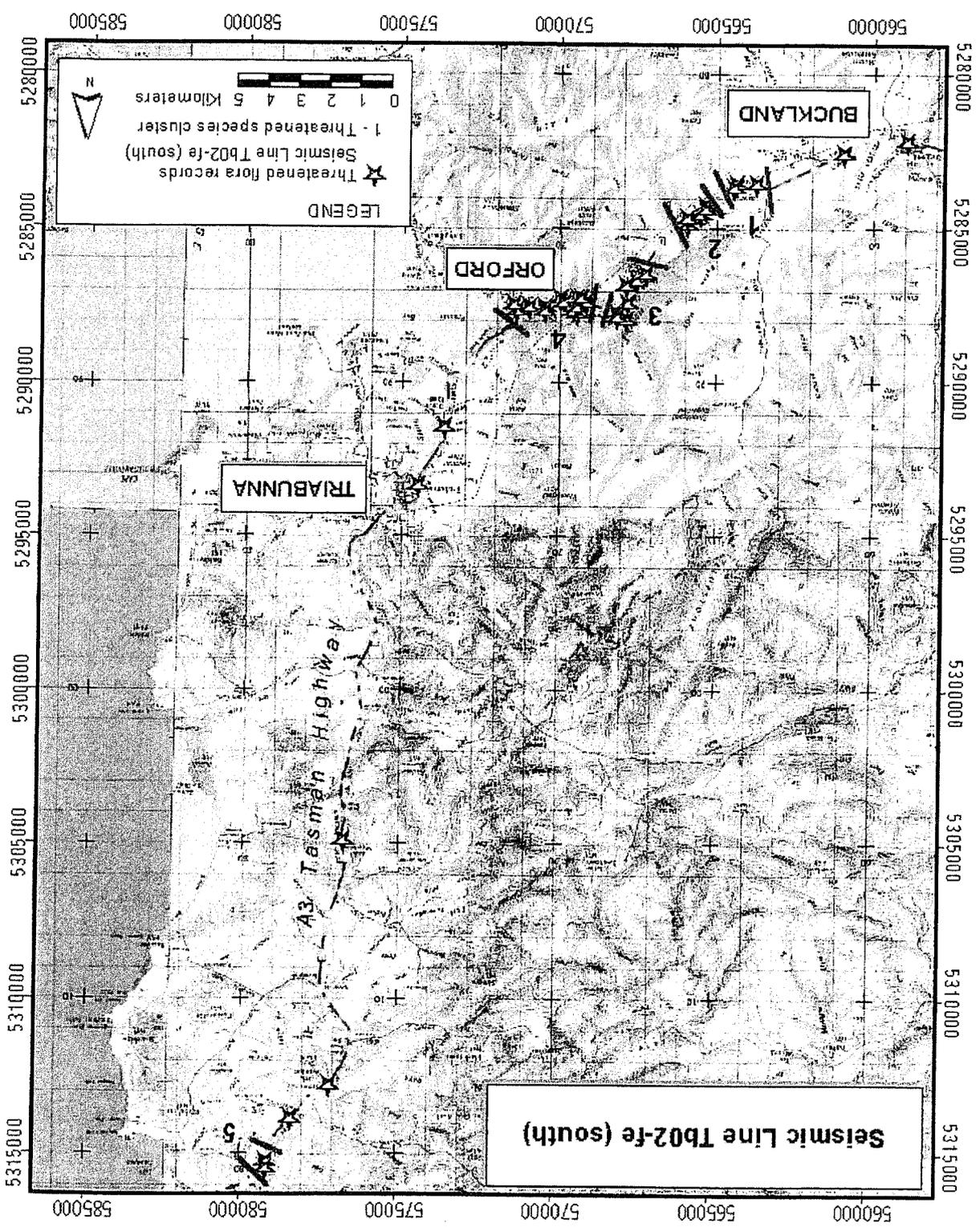
- ★ Threatened flora records (Tb02-fe)
- ★ Threatened flora records (Tb02-fe (north))
- Seismic Line Tb02-fe
- 1 - Threatened species clusters

0 1 2 3 4 5 Kilometers

N

SWANSEA

Seismic Lines Tb02-fe (north) & Tb02-fe



APPENDIX 2 - Tables of threatened species records

The following tables provide details of threatened species records for the site.

Tb02-aa

Monpeeliyala Road - Manlesfield Road - forestry roads - Menmore Road - Victoria Valley Road (North-South)

SPPECIES	COMMON	ACCURACY	TSPA	BPBCA
<i>Hymenochilus pratensis</i>	100	r	VU	
<i>Colobanthus curtisiae</i>	100	r	VU	
<i>Stellaria multiflora</i>	100	r		
<i>Viola cunninghamii</i>	100	r		
<i>Persoonia muelleri angustifolia</i>	1000	r		
<i>Brachyscome radicata</i>	10	r		
<i>Lycinia elegans</i>	200	r		
Threatened Species Cluster #	1			
Coordinates	Start	468000E, 5346850N		
	Stop	468150E, 5346800N		



Tb02-bb

Dunrobin Road - Lake Kopulise Road - OLSE - Top Hill Road - Meadsfield Road -  
 BOTHWELL - Dennistoun Road (West to North)

SPRICES	COMMON	ACCURACY TSPA EPBCA
<i>Epacris acuminata</i>	claspimg-leaf health	100 r EN
<i>Carex longebrachata</i>	drooping sedge	1000 r
<i>Pellaea caliditripitum</i>	hot rock fern	5000 r
<i>Epacris acuminata</i>	claspimg-leaf health	2500 r EN
<i>Epacris acuminata</i>	claspimg-leaf health	100 r EN
<i>Epacris acuminata</i>	claspimg-leaf health	100 r EN
<i>Epacris acuminata</i>	claspimg-leaf health	100 r EN
<i>Lobelia pratoides</i>	poison lobelia	5000 v
<i>Xanthoparmelia willisii</i>		10000 e
<i>Xanthoparmelia willisii</i>		1000 e
<i>Xanthoparmelia willisii</i>		1000 e

Threatened Species Cluster #

1

Coordinates

Start

508550E, 5326559N 507900E, 5325650N

Stop

508550E, 5326559N



Tb02-bf

Plenty Valley Road - forestry roads - Denison Rd - Weld Rd - forestry rds - Lidgerwood Rd - Arvo Rd - Bennetts Rd - Esperance River Rd - Peak Rivulet Rd - Larcy Link - Old Hastings Rd - Lune River Rd - South Cape Rd (North - South)

COMMON ACCURACY TSPA FPBCA

scabrous westringia	100	r
scabrous westringia	100	r
scabrous westringia	100	r
bearded midge orchid	100	e
bearded midge orchid	100	e
bearded midge orchid	100	e
heath bent grass	1500	r
fringed everlasting	1000	r
mountain gum	5000	r

SPPECIES

*Westringia angustifolia*  
*Westringia angustifolia*  
*Westringia angustifolia*  
*Genoplesium mortisii*  
*Genoplesium mortisii*  
*Genoplesium mortisii*  
*Deyouzia densa*  
*Chrysoccephalum baxteri*  
*Cecum talbotianum*

Threatened Species Cluster #

Coordinates

Start	484900E, 5232700N	1
Stop	485200E, 5232400N	2
	486750E, 5221300N	3
	484950E, 5215000N	4
	491850E, 5187950N	5
	490000E, 5183650E	

Tb02-bg(north)

Interlaken Road - Coldblow Lane - Bowhill Road (North - South)

SPECIES

*Penstemon ericifolia*

COMMON

matted carpet health

ACCURACY TSPA EPBCA

100 F

TSPA EPBCA



Tp02-bh

Lyell Highway - Fourteen Mile Road - Lyell Highway - forestry roads (South-North)

COMMON	ACCURACY	TSPA	BPBCA
<i>Carex capillacea</i>	100	f	
<i>Weslingia angustifolia</i>	100	r	
<i>Trichia elegans</i>	100	f	
yellow-leaf sedge	100	f	
scabrous westringia	100	r	
handsome hook sedge	10	f	

TB02-b1

TYNNACR - Eldon Road - COLBROOK - Yarrington Road - Quoin Road - private tracks (East - West)

SPECIES

*Agrostis propinqua*

*Agrostis propinqua*

*Leptidum pseudotasmaticum*

*Austrodanthonia popuifolia*

Threatened Species Cluster #

1

COMMON

ACCURACY TSPA EPRCA

200 r

200 r

100 r

100 r

100 e EN

shade peppercress roadside wallaby grass

Coordinates

Start 524650E, 5289800N

Stop

524350E, 5289650N

Tb02-cd

Huon Highway - Glen Road - North Huon Road - Russell Road - Dolentie Road (East - West)

SPECIES

- Conosperma defoliatum*
- Epacris virgata (Kellerng)*
- Epacris virgata (Kellerng)*
- Epacris virgata (Kellerng)*
- Pomadourris elachophylla*

Threatened Species Cluster #

1

Coordinates

Start 516000E 5241100N  
 Stop 515000E 5240850N

COMMON

leafless millwort

small leaf pomadourris

ACCURACY TSPA EPBCA

- 3000 F
- 1000 V EN
- 1000 V EN
- 1500 V EN
- 10 V EN

TB02-ct

Ranclagh Road - Channel Highway (North - South)

SPICES	COMMON	ACCURACY	TSPA	BPBCA	Easting	Northing	Location
<i>Argemone pallidum spiceri</i>	spicer's everlasting	500	e	CR	503750E	5235650N	
<i>Argemone pallidum spiceri</i>	spicer's everlasting	2000	e	CR	503750E	5235650N	
<i>Leptium hyssopifolium</i>	basalt peppercress	1000	c	FN	504800E	5223500N	
<i>Argemone pallidum spiceri</i>	spicer's everlasting	500	e	CR	503750E	5235650N	

Tb02-cg  
Tobys Hill Road - Nichols Rivulet Road (West - East)  
No Threatened Flora records exist

TB02-ch  
Channel Highway (South - North)

SPECIES

- Epacris virgata* (Kellering)
- Epacris virgata* (Kellering)
- Dryopoa dives*
- Lepidium pseudolasmanicum*
- Lepidium pseudolasmanicum*
- Lepidosperma tortuosum*

Threatened Species Cluster #

1

COMMON

- giant mountain grass
- shade peppercress
- shade peppercress
- twisting rapier sedge

Coordinates

Start

519850E, 522860N

Stop

520000E, 5228781N

ACCURACY TSPA EPRCA

100 v FN

100 v FN

3000 r

1500 r

50 r

1000 r

Tp02-cl  
Sandfly Road (East - West)

SPCIBS

- Epacris virgata* (Kettering)
- Epacris virgata* (Kettering)
- Epacris acuminata*
- Epacris virgata* (Kettering)
- Epacris virgata* (Kettering)
- Epacris acuminata*

Threatened Species Cluster #  
1  
2

COMMON

ACCURACY	TSPA	BPRCA	BN	EN																
100	v		100																	
100	v		100																	
100	f		100																	
1000	v		1000																	
1500	v		1500																	
100	f		100																	
100	f		100																	
100	f		100																	
100	f		100																	
100	f		100																	
100	f		100																	
100	f		100																	
100	f		100																	

Coordinates

Start  
519700E, 5238050N 519600E, 5238300N  
Stop  
517400E, 5239750N 517100E, 5239800N

Tb02-ea

Stonor Road - Woodsdale Road - Stonehenge Road - Swanston Road (West - East)

ACCURACY TSPA PBCA

SPCIES	COMMON	VT	VF	VE	EN
<i>Colobanthus curtisiae</i>	100	r			
<i>Colobanthus curtisiae</i>	100	r			
<i>Juncus amabilis</i>	100	r			
<i>Leptidium hyssopifolium</i>	100	r			
<i>Juncus vaginatus</i>	100	r			
curtis' colobanth	100	r			
gentle rush	100	r			
basalt peppercress	50	e			
clustered rush	100	r			

Threatened Species Cluster #

1

Coordinates

Start 551900E, 5305550N  
Stop 552600E, 5305500N





Tb02-ec  
Inglewood Road - Lemont Road (West - East)

SPICERS	COMMON	ACCURACY	TSPA	BPBCA	Eastng	Northng	Location
<i>Lepidium hyssopifolium</i>	basalt peppercress	50	e	EN	532950E	5312900N	
<i>Viladina cuneata</i>	fuzzy new holland daisy	100	r		538400E	5313400N	
<i>Scleranthus fasciculatus</i>	spreading knawel	100	v		538400E	5313400N	

Tb02-ed

private road - York Plains Road - Lemont Road - Stonehouse Road (West-East)

COMMON ACCURACY TSPA BPRCA

Species	Count	Accuracy
<i>Dianella longifolia longifolia</i>	100	r
<i>Haloragis heterophylla</i>	100	r
<i>Leptidium hyssopifolium</i>	100	r
<i>Vittadina gracilis</i>	100	e
<i>Vittadina muelleri</i>	100	r
<i>Leptidium hyssopifolium</i>	100	r
<i>Leptidium hyssopifolium</i>	100	e
basalt peppercress	100	EN
basalt peppercress	100	e
narrow leaf new holland daisy	100	r
woolly new holland daisy	100	r
basalt peppercress	100	e
variable raspwort	100	r
pale flax lily	100	r
narrow leaf new holland daisy	100	r
basalt peppercress	100	e
basalt peppercress	100	EN
narrow leaf new holland daisy	100	e

Threatened Species Cluster #

1  
2

Coordinates	Start	Stop
542250E, 532070N	545500E, 5320750E	544400E, 5320750N
		548050E, 5320800N

TB02-ee  
 private road - Metrose road - WOODBURY - Glen Morey Road - private road (North - South)

COMMON ACCURACY TSPA EPRCA VT

curly sedge	2000	r
shade peppercress	100	r
chocolate lily	10000	r
pale flax lily	10000	r
tufted knawel	100	v
dwarf aphelia	10000	r
spear grass	10000	r
spear grass	100	r
spear grass	100	r
cunningham's violet	10000	r
roundleaf wilsonia	100	r

Threatened Species Cluster #	1
Coordinates	Start 5328150N 532800E, Stop 5327750N
Species	<i>Carex lasmanica</i> <i>Leptidium pseudorasmanicum</i> <i>Arthropodium strictum</i> <i>Dianella longifolia longifolia</i> <i>Scleranthus diander</i> <i>Aphelia pumilio</i> <i>Austrostipa nodosa</i> <i>Austrostipa nodosa</i> <i>Austrostipa nodosa</i> <i>Viola cunninghamii</i> <i>Wilsonia rotundifolia</i>

Tb02-et

private road - Glen Morey Road - WOODBURY - Old Tier Road (East - West)

SPECIES

*Dianella longifolia longifolia*

*Austrostipa nodosa*

*Austrostipa nodosa*

*Austrostipa nodosa*

COMMON

pale flax lily

spear grass

spear grass

spear grass

100 r

100 r

100 r

200 r

ACCURACY TSPA FPBCA

Threatened Species Cluster #

1

Coordinates

Start

530900E, 5330750N

Stop

528350E, 5331800N

1B02-eg  
Ballacorney Road - Glen Storey Road (North - South)

No Threatened Flora records exist

Tp02-eh

Glen Morey Road - cleared land - honeysuckle Road (West - East)

SPRINGS

COMMON

- 100 e EN ACCURACY TSPA EPBCA
- 100 r
- 100 r
- 100 r
- 100 r
- 100 e

*Leucochrysum albicans albicans tricolor*

hoary sunray, grassland gem

*Austrostipa nodosa*

*Viola cunninghamii*

*Viola cunninghamii*

*Viola cunninghamii*

*Leucochrysum albicans albicans tricolor*

grassland paper daisy

cunningham's violet

cunningham's violet

spear grass

Threatened Species Cluster #

1

Start  
551300E, 5331650N

Coordinates

Stop

552300E, 533200N

TP02-e1

Mona Vale Road - forestry roads - cleared land - Tooms Lake Road (West - East)

SPECIES

COMMON

Species Name	Count	Code
<i>Catocephalus laticus</i>	100	r
<i>Dianella longifolia longifolia</i>	100	r
<i>Catocephalus laticus</i>	300	r
<i>Leucocorysum albicans albicans tricolor</i>	100	r
milky beauty heads	100	r
pale flax lily	100	r
milky beauty heads	300	r
hoary sunray, grassland gem	100	r
<i>Leucocorysum albicans albicans tricolor</i>	100	r
<i>Xanthoparmelia willisii</i>	100	r
<i>Leucocorysum albicans albicans tricolor</i>	10000	e
grassland paper daisy	100	e
<i>Leucocorysum albicans albicans tricolor</i>	100	e
grassland paper daisy	100	e
<i>Leucocorysum albicans albicans tricolor</i>	100	e
grassland paper daisy	100	e
<i>Leucocorysum albicans albicans tricolor</i>	100	e

Threatened Species Cluster #

1

2

Start  
539750E, 5341900N  
547600E, 5331650N

Coordinates

Stop  
540150E, 5341100N  
547900E, 5331000N

ACCURACY TSPA EPBCA

TP02-ej  
*cleared land - forestry roads (West - East)*  
No Threatened Flora records exist











No Threatened Flora records exist

Tb02-eo  
*Buckland Road*

SPICIES	COMMON	ACCURACY	TSPA	BPBCA	VI	FN	EN
<i>Calcephalus cireus</i>	lemon beauty heads	4686	T				
<i>Lepidium pseudotasmaticum</i>	shade peppercress	4686	T				
<i>Austrostipa scabra</i>	rough spear-grass	100	T				
<i>Austroranthonia procera</i>	tall wallaby-grass	1000	T				
<i>Carex longebrachiala</i>	drooping sedge	100	T				
<i>Dianella longifolia longifolia</i>	pale flax lily	4686	T				
<i>Agrostis propinqua</i>	pale flax lily	200	T				
<i>Dianella longifolia longifolia</i>		100	T				
<i>Eryngium ovinum</i>		100	T				
<i>Glycine latrohana</i>		100	V				
<i>Pomaderris intermedia</i>	tree pomaderris	1500	V				
<i>Pomaderris phyllifolia phyllifolia</i>		100	T				
<i>Thryptomene micrantha</i>	narrow leaf pomaderris	1500	T				
<i>Vitadina cuneata</i>	ribbed thryptomene	7000	T				
<i>Pomaderris phyllifolia phyllifolia</i>	fuzzy new holland daisy	100	T				
<i>Pomaderris phyllifolia phyllifolia</i>	narrow leaf pomaderris	1500	T				
<i>Leucorchrysium albicans albicans tricolor</i>	hoary sunray, grassland gem	1500	T				
<i>Vitadina muelletii</i>	narrow leaf new holland daisy	1000	E				
<i>Austrostipa nodosa</i>	narrow leaf new holland daisy	4686	T				
<i>Austrostipa nodosa</i>	spear grass	4686	T				
<i>Eryngium ovinum</i>	spear grass	100	T				
<i>Eryngium ovinum</i>	blue devil	100	V				
<i>Eryngium ovinum</i>	blue devil	1000	V				
<i>Eryngium ovinum</i>	blue devil	100	V				
<i>Eryngium ovinum</i>	blue devil	100	V				
<i>Eryngium ovinum</i>	blue devil	100	V				
<i>Eryngium ovinum</i>	blue devil	50	V				
<i>Eryngium ovinum</i>	blue devil	2000	V				
<i>Viola cunninghamii</i>	cunningham's violet	100	T				
<i>Viola cunninghamii</i>	cunningham's violet	100	T				
<i>Vitadina gracilis</i>	woolly new holland daisy	4686	T				
<i>Calcephalus cireus</i>	lemon beauty heads	100	T				
<i>Vitadina muelletii</i>	narrow leaf new holland daisy	100	T				
<i>Leucorchrysium albicans albicans tricolor</i>	grassland paper daisy	1000	E				

Threatened Species Cluster #

1  
2  
3  
4

Start  
Coordinates

544600E, 5264550N  
 543150E, 5275700N  
 550700E, 5279650N  
 551750E, 5280900N  
 Stop  
 543944E, 5266800N  
 543350E, 5276200N  
 550900E, 5279450N  
 552100E, 5281150N

Tb02-ez  
cleared land (off Balllochmye Road)  
No Threatened Flora records exist









Threatened Species Cluster #

1  
2  
3  
4  
5

Coordinates

Start  
587200E, 5343700N 587100E, 5345100N  
587150E, 5346400N 588000E, 5348050N  
591900E, 5350250N 592650E, 5350450N  
593150E, 5350700N 595200E, 5352300N  
604000E, 5360700N 604450E, 5360900N

Tb02-fc

Swan River Road - Sands Road (East - West)

SPECIES

- Lachnagrostis billardierei tenuiseta*
- Lachnagrostis billardierei tenuiseta*
- Cynoglossum australe*
- Poa poliformis ramifera*
- Lachnagrostis billardierei tenuiseta*

COMMON

- small-awned blown-grass
- small-awned blown-grass
- australian hound's tongue
- island purple grass
- small-awned blown-grass

- 2000
- 2500
- 2000
- 2000
- 2000
- 2500

ACCURACY TSPA EPRCA

Threatened Species Cluster #

- 1
- 2

Start  
595450E, 5339650N  
599900E, 5339150N

Coordinates

Stop  
595750E, 5339650N  
600100E, 5339100N

TP02-fd

The Sauge Road - forestry Roads - Mackays Road - Bresnohans Road (West - East)

SPECIES

*Banuca gurnii*

COMMON

slender twig rush

5000

r

ACCURACY TSPA FPRCA

565000B

5320000N  
Rasting  
Northing

Location





Threatened Species Cluster #	Start	Stop	Coordinates	Species Name
1	563700E, 5283850N	564650E, 5283800N	woolly new holland daisy	<i>Vitadinia gracilis</i>
2	565200E, 5284050N	566200E, 5284850N	narrow leaf new holland da	<i>Vitadinia muelletii</i>
3	567300E, 5286350N	568350E, 5287700N	narrow leaf pomaderris	<i>Juncus vaginatus</i>
4	569000E, 5287450N	571400E, 5287900N	narrow leaf pomaderris	<i>Pomaderris phyllifolia phyllifolia</i>
5	579200E, 5315100N	579400E, 5315500N	narrow leaf pomaderris	<i>Pomaderris phyllifolia phyllifolia</i>
6	581900E, 5317700N	582200E, 5318200N	clustered rush	<i>Pomaderris phyllifolia phyllifolia</i>
7	583250E, 5322300N	584050E, 5323900N	narrow leaf pomaderris	<i>Pomaderris phyllifolia phyllifolia</i>
8	585900E, 5326850N	586700E, 5327600N	narrow leaf pomaderris	<i>Pomaderris phyllifolia phyllifolia</i>
9	588050E, 5329650N	588300E, 5330200N	barbers gum	<i>Pomaderris phyllifolia phyllifolia</i>
10	588250E, 5332400N	588100E, 5333500N	sea bindweed	<i>Calystegia soldanella</i>
11	588750E, 5335300N	588100E, 5333500N	cunningham's violet	<i>Viola cunninghamii</i>
12	587500E, 5336700N	588800E, 5335750N	narrow leaf pomaderris	<i>Pomaderris phyllifolia phyllifolia</i>
13	588100E, 5341450N	587200E, 5337100N	barbers gum	<i>Eucalyptus barberi</i>
14	587650E, 5342850N	587900E, 5342250N	trailing speedwell	<i>Veronica plebeia</i>

Appendix B: DIER Conservation Areas



Onshore Seismic Survey Environmental Management Plan  
Great South Land Minerals Ltd

GREAT SOUTHLAND  
MINERALS  
LIMITED



APPENDIX 1a: Grid Coordinates for Conservation Sites (GDA 94)

Conservation Site No.	Project Management Category	Species Site No.	Side	EASTING START	NORTHING START	EASTING END	NORTHING END
1	Orchids	571,030.50	R	573,157.50	570,977.80	571,030.50	570,977.80
2	Orchids	573,157.50	R	574,508.70	574,000.30	573,157.50	574,000.30
3	Viminaria juncea	601,560.40	L+R	534,151.30	601,583.90	601,560.40	534,151.30
4	Eucalyptus mortisbyi	541,211.00	R	524,731.50	541,202.30	541,211.00	524,682.30
5	Lepidium hyssopifolium	516,081.59	R	528,099.00	518,044.10	516,081.59	528,455.30
6	Lepidium hyssopifolium	527,560.10	L	529,871.80	527,430.10	527,560.10	529,994.40
7	Lepidium hyssopifolium	517,445.10	L	529,871.80	517,382.30	517,445.10	529,850.30
8	Lepidium hyssopifolium	TBA	L	526,772.60	517,382.30	517,382.30	526,850.30
9	Lepidium hyssopifolium	604,466.40	L	540,234.60	604,506.20	604,466.40	540,234.60
10	Austrodanthonia pophensis	522,123.60	L	527,829.50	522,206.10	522,123.60	527,862.10
11	Austrodanthonia pophensis	520,246.10	L+R	527,816.20	518,924.20	520,246.10	527,802.10
12	Austrodanthonia pophensis	516,944.10	L+R	529,470.80	516,637.30	516,944.10	529,478.90
13	Austrodanthonia pophensis	515,782.20	L+R	529,509.00	514,774.70	515,782.20	529,949.10
14	Austrodanthonia pophensis	539,980.50	L+R	534,582.00	539,975.30	539,980.50	534,591.50
15	Tunbridge Grassland	534,115.60	R	533,542.40	534,280.90	534,115.60	533,655.30
16	Tunbridge Grassland	534,115.60	L	533,542.40	534,280.90	534,115.60	533,655.30
17	Tunbridge Grassland	534,142.20	L	533,803.30	534,493.80	534,142.20	533,985.40
18	Tunbridge Grassland	534,913.70	L	534,891.60	535,218.80	534,913.70	535,346.80
19	Tunbridge Grassland	534,913.70	R	534,891.60	535,218.80	534,913.70	535,346.80
20	Tunbridge Grassland	535,417.00	L	534,891.60	535,048.20	535,417.00	535,101.50
21	Tunbridge Grassland	535,499.60	R	535,571.10	535,561.50	535,499.60	535,780.50
22	Tunbridge Grassland	535,632.70	L	535,906.10	535,820.40	535,632.70	535,200.40
23	Tunbridge Grassland	535,660.30	R	535,947.70	535,768.40	535,660.30	535,115.20
24	Holyman Avenue Grassland	539,186.90	R	527,440.90	539,924.60	539,186.90	527,723.40
25	Holyman Avenue Grassland	539,186.90	L	527,440.90	539,924.60	539,186.90	527,723.40
26	Wanstead Grassland	538,476.40	L	538,596.50	538,426.50	538,476.40	538,737.60
27	Wanstead Grassland	538,459.40	R	538,643.40	538,426.50	538,459.40	538,737.60
28	Wanstead Grassland	538,239.30	L	536,306.30	538,040.60	538,239.30	538,923.60
29	Wanstead Grassland	538,161.50	R	536,454.30	538,070.60	538,161.50	538,828.60
30	Avoca Grasslands	549,158.90	R	537,044.90	549,541.60	549,158.90	537,152.60
31	Avoca Grasslands	549,791.30	R	537,135.10	549,890.70	549,791.30	537,125.30
32	Avoca Grasslands	550,135.40	R	537,080.30	550,309.80	550,135.40	537,083.20
33	Avoca Grasslands	550,828.50	R	537,872.30	550,928.20	550,828.50	537,887.10
34	Avoca Grasslands	551,125.60	R	537,916.90	551,869.80	551,125.60	537,966.10
35	Avoca Grasslands	552,266.30	R	537,918.00	552,363.90	552,266.30	537,995.66
36	Avoca Grasslands	552,809.20	R	537,888.40	553,059.00	552,809.20	537,898.10
37	Avoca Grasslands	553,158.80	R	537,905.00	553,743.90	553,158.80	537,035.70
38	Avoca Grasslands	554,383.00	R	537,136.30	555,482.50	554,383.00	537,111.30
39	Tasman Highway Lake Leake Junction	587,659.00	R	534,311.60	587,416.10	587,659.00	534,330.30
40	Tasman Highway Lake Leake Junction	587,416.10	L	534,311.60	587,416.10	587,416.10	534,048.50
41	Tasman Highway Lake Leake Junction	587,594.40	L	534,442.00	587,470.10	587,594.40	534,659.50
42	Tasman Highway Lake Leake Junction	587,124.20	L	534,048.50	587,140.00	587,124.20	534,243.50
43	Tasman Highway Lake Leake Junction	587,165.40	R	534,368.30	587,134.70	587,165.40	534,483.90

# APPENDIX 1b: Road Link Map Locations for Conservation Sites (DIER)

Queres: Environmental Planner  
DIER Transport Infrastructure Branch

Conservation Site No.	Project Management Category	Species Site No.	Road No.	Side	Start Link No	Start Chalgae	End Link No.	End Chalgae
1	Orchids	A0142	R		73	4.55	73	4.8
2	Orchids	A0142	R		56	3.5	56	5.05
3	Viminaria juncea	A2632	L+R		51	8.45	51	8.55
4	Eucalyptus mortisbyi	A2066	R		5	10	5	10.05
5	Lepidium hyssopifolium	A0087	R		20	0.45	20	0.61
6	Lepidium hyssopifolium	A0029	L		5	6.2	5	6.39
7	Lepidium hyssopifolium	A0087	L		20	5	20	5.1
8	Lepidium hyssopifolium	A1125	L		47	6.49	47	6.5
9	Lepidium hyssopifolium	A0113	L		53	10.32	53	10.37
10	Austrodanthonia poplensis	A2289	L		5	1.96	5	2.05
11	Austrodanthonia poplensis	A0087	L+R		15	2.6	15	5
12	Austrodanthonia poplensis	A0087	L+R		20	8.85	20	9.91
13	Austrodanthonia poplensis	A0087	L+R		24	1.35	24	5.95
14	Austrodanthonia poplensis	A0087	L+R		57	2.95	57	2.98
15	Tunbridge Grassland	A0087	R		45	9.10	49	9.30
16	Tunbridge Grassland	A0087	L		49	9.10	49	9.30
17	Tunbridge Grassland	A0087	L		49	9.50	49	9.70
18	Tunbridge Grassland	A0087	L		55	0.20	55	0.75
19	Tunbridge Grassland	A0087	R		55	0.20	55	0.45
20	Tunbridge Grassland	A0087	L		55	1.05	55	1.30
21	Tunbridge Grassland	A0087	R		55	1.20	55	1.25
22	Tunbridge Grassland	A0087	L		55	1.45	55	1.80
23	Tunbridge Grassland	A0087	R		55	1.50	55	1.70
24	Holyman Avenue Grassland	A0113	R		7	12.00	7	12.80
25	Holyman Avenue Grassland	A0113	L		7	12.00	7	12.80
26	Wanstead Grassland	A0087	L		68	7.10	68	7.25
27	Wanstead Grassland	A0087	R		68	7.15	68	7.25
28	Wanstead Grassland	A0087	L		68	7.85	68	8.50
29	Wanstead Grassland	A0087	R		68	8.10	68	8.40
30	Avoca Grasslands	A1125	R		21	1.15	21	1.55
31	Avoca Grasslands	A1125	R		21	1.80	21	1.90
32	Avoca Grasslands	A1125	R		21	2.15	21	2.35
33	Avoca Grasslands	A1125	R		21	2.90	21	3.00
34	Avoca Grasslands	A1125	R		21	3.20	21	3.95
35	Avoca Grasslands	A1125	R		21	4.35	21	4.45
36	Avoca Grasslands	A1125	R		21	4.80	21	5.15
37	Avoca Grasslands	A1125	R		21	5.25	21	5.85
38	Avoca Grasslands	A1125	R		21	6.50	21	7.60
39	Tasman Highway Lake Leake Junction	A0113	R		36	8.20	36	8.69
40	Tasman Highway Lake Leake Junction	A0113	L		36	8.69	36	9.13
41	Tasman Highway Lake Leake Junction	A0113	L		36	8.35	36	8.60
42	Tasman Highway Lake Leake Junction	A0113	L		38	0.00	38	0.20
43	Tasman Highway Lake Leake Junction	A0113	R		38	0.33	38	0.45

**THREATENED SPECIES HABITAT**

**TIME RESTRICTED SLASHING**

**Threatened Species**

**14**

**Time Restricted**

**SLASHING**

**Mowing/Slashing**  
 DO NOT MOW OR SLASH during November, December or January. Mow or slash this area between February and October only. Do not mow or slash with wet ground.

**Drain cleaning**  
 Clean drains as required but minimise the disturbed area. Remove spoil from the site and dispose of in a designated area (not on native vegetation).

**Scraping/Grading**  
 DO NOT scrape or grade beyond the table drain in this area.

**Removal of material**  
 DO NOT remove any material from this area, apart from drain spoil, unless it is essential. This material is likely to contain threatened plants, bulbs or seeds.

**Stockpile & Parking**  
 DO NOT stockpile materials or park within this area.

**Pruning**  
 DO NOT prune any plants here unless it is essential for safety or sightlines.

**Clearing, Digging & Construction**  
 ABSOLUTELY NO construction, clearing or digging is to occur within this area.

**Weeding**  
 DO NOT spray herbicide behind the furniture in this area. No other weed control actions to be done in this area.

**Machinery and Equipment**  
 Avoid bringing machinery into road reserves in Threatened Species Habitat areas. If machinery has to be brought in it must be cleaned of any soil contamination before entering to avoid weed transport.

**Where is it**  
 Site 14 is on the Midland Highway around the southern turn-off to Ross.

**Description of Values**  
 Rare native grasses occur in this area. There may be specific active management at this site but it also requires some modification of routine maintenance activities to protect and encourage rare native plants.

**Management**

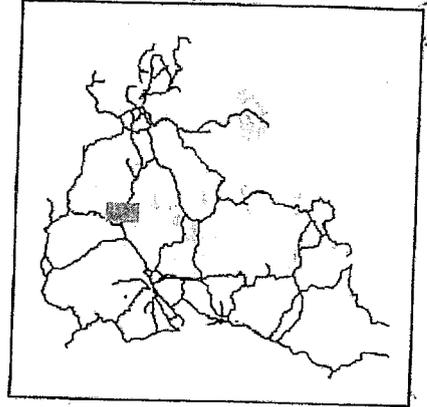
Work in Threatened Species Habitat Areas is permitted by a Public Authority Management Agreement. Placement of Environment field markers assists in identification of these areas. Please report any damaged or apparently missing Environment field markers to the DIER Environmental Planner ph 6233 8753.



Tasmania



DEPARTMENT OF  
ENVIRONMENT  
PLANNING AND INFRASTRUCTURE



SITE 14

Threatened Species  
14  
Time Restricted  
SLASHING



TONYAN  
MIDLAND

ROSS

RIVER  
ROAD

RIE

HIGHWAY  
MIDLAND

# HIGH PRIORITY CONSERVATION SITES SITE NUMBER 14

Where it is:  
Site 14 is on the Midland Highway around the southern turn-off to Ross.  
Description:  
Rare native grasses occur in this area.

**THREATENED SPECIES HABITAT**

**DISTANCE RESTRICTED SLASHING**

**Threatened Species**  
**39**  
**Distance Restricted SLASHING**

**Mowing/Slashing**  
 DO NOT MOW OR SLASH behind the furniture. Slash between the pavement and furniture only. Do not mow or slash when the ground is wet.

**Drain cleaning**  
 Clean drains as required but minimise the disturbed area. Remove spoil from the site and dispose of in a designated area (not on native vegetation).

**Scraping/Grading**  
 DO NOT scrape or grade beyond the table drain in this area.

**Removal of material**  
 DO NOT remove any material from this area, apart from drain spoil, unless it is essential. This material is likely to contain threatened plants, bulbs or seeds.

**Stockpile & Parking**  
 DO NOT stockpile materials or park within this area.

**Pruning**  
 DO NOT prune any plants here unless it is essential for safety or sightlines.

**Clearing, Digging & Construction**  
 ABSOLUTELY NO construction, clearing or digging is to occur within this area.

**Weeding**  
 DO NOT spray herbicide behind the furniture in this area. No other weed control actions to be done in this area.

**Machinery and Equipment**  
 Avoid bringing machinery into road reserves in Threatened Species Habitat areas. If machinery has to be brought in it must be cleaned of any soil contamination before entering to avoid weed transport.

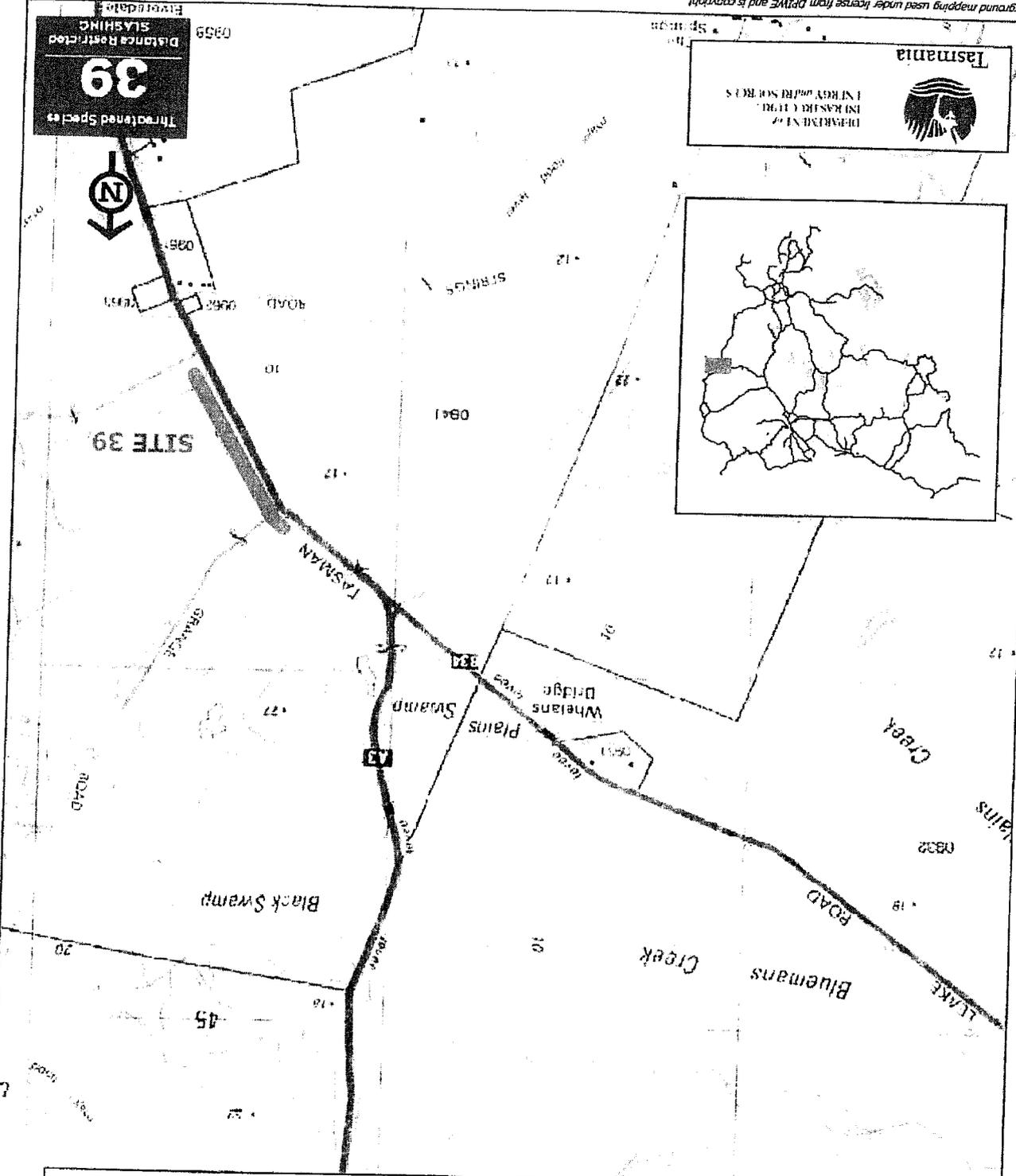
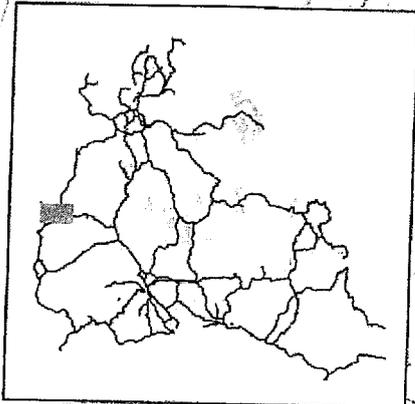
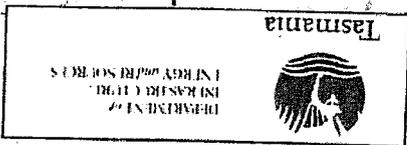
**Where is it**  
 Site 39 is on the Tasman Highway at the Lake Leake Road junction.

**Description of Values**  
 Rare native shrubs occur in this area. There may be specific active management at this site but it also requires some modification of routine maintenance activities to protect and encourage rare native plants.

**Management**  
 Work in Threatened Species Habitat Areas is permitted by a Public Authority Management Agreement. Placement of Enviromark field markers assists in identification of these areas. Please report any damaged or apparently missing Enviromark field markers to the DIER Environmental Planner ph 6233 8753.



Threatened Species  
39  
Distance Restricted  
SLASHING  
Elevation: 0359



**HIGH PRIORITY CONSERVATION SITES**  
**SITE NUMBER 39**  
Where it is:  
Site 39 is on the Tasman Highway south of the Leake Main Road junction.  
Description:  
Rare native shrubs occur in this area.

**THREATENED SPECIES HABITAT**

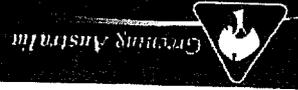
**TIME RESTRICTED SLASHING**

- Mowing/ Slashing**  
DO NOT MOW OR SLASH during November, December or January. Mow or slash this area between February and October only. Do not mow or slash when the ground is wet.
- Drain cleaning**  
Clean drains as required but minimise the disturbed area. Remove spoil from the site and dispose of in a designated area (not on native vegetation).
- Scraping/Grading**  
DO NOT scrape or grade beyond the table drain in this area.
- Removal of material**  
DO NOT remove any material from this area, apart from drain spoil, unless it is essential. This material is likely to contain threatened plants, bulbs or seeds.
- Stockpile & Parking**  
DO NOT stockpile materials or park within this area.
- Pruning**  
DO NOT prune any plants here unless it is essential for safety or sightlines.
- Clearing, Digging & Construction**  
ABSOLUTELY NO construction, clearing or digging is to occur within this area.
- Weeding**  
DO NOT spray herbicide behind the furniture in this area. No other weed control actions to be done in this area.
- Machinery and Equipment**  
Avoid bringing machinery into road reserves in Threatened Species Habitat areas. If machinery has to be brought in it must be cleaned of any soil contamination before entering to avoid weed transport.
- Where is it**  
Site 40 is near the Tasman Highway/Lake Leake Rd junction.
- Description of Values**  
Rare plants occur in this area. There may be specific active management at this site but it also requires some modification of routine maintenance activities to protect and encourage rare native plants.
- Management**  
Work in Threatened Species Habitat Areas is permitted by a Public Authority Management Agreement. Placement of Enviromark field markers assists in identification of these areas. Please report any damaged or apparently missing Enviromark field markers to the DIER Environmental Planner ph 6233 8753.

**Threatened Species**

**40**

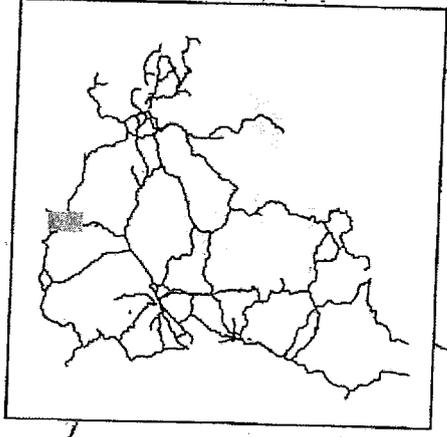
**Time Restricted SLASHING**



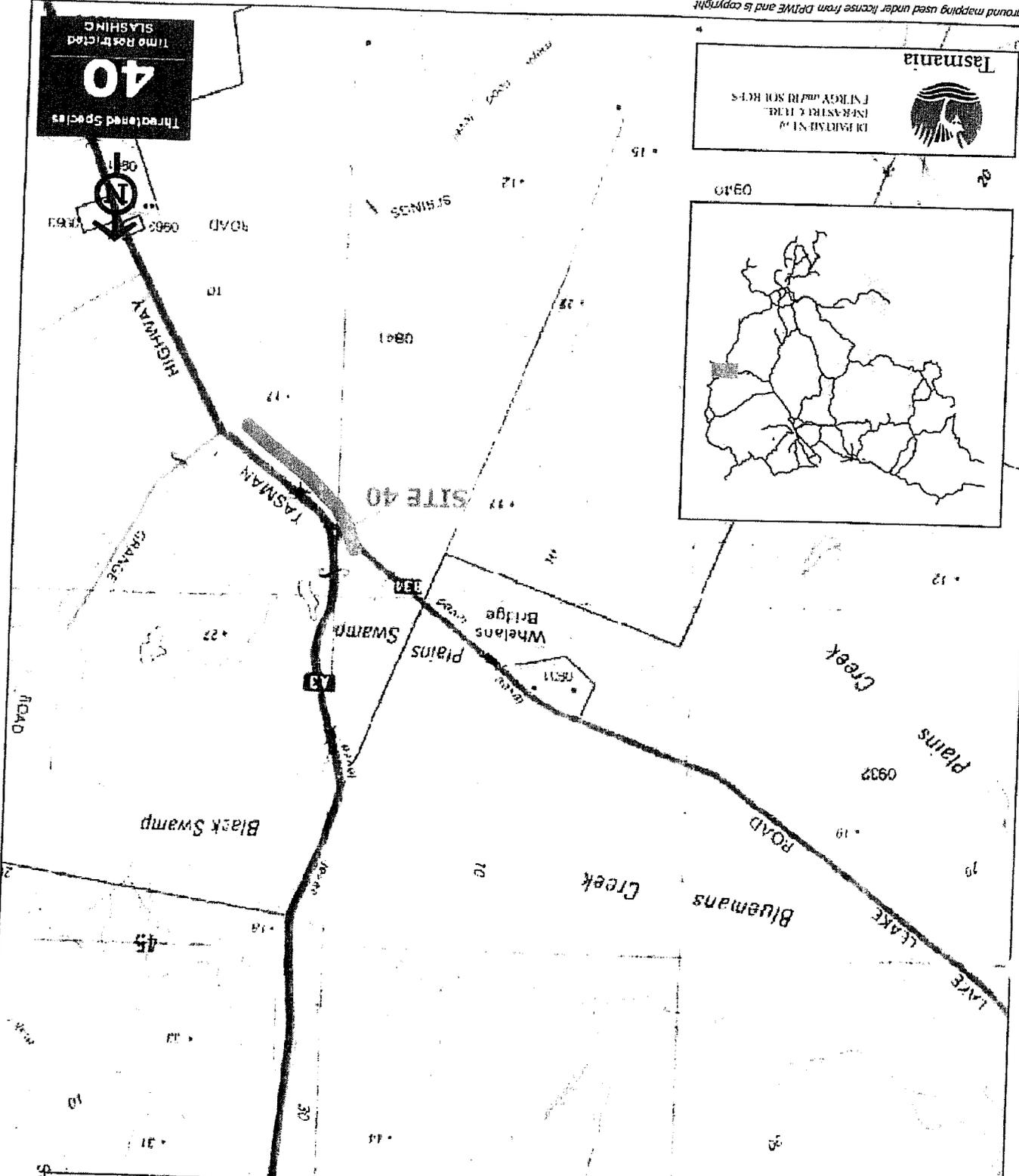
Tasmania



DEPARTMENT OF  
ENVIRONMENT AND HERITAGE



Threatened Species  
40  
Time Restricted  
SLASHING



# HIGH PRIORITY CONSERVATION SITES SITE NUMBER 40

Where it is:  
Site 40 is near the Tasman Highway and Lake Leake Main Road junction.  
Description:  
Rare plants occur in this area.

**THREATENED SPECIES HABITAT**

**DISTANCE RESTRICTED SLASHING**

**Mowing/Slashing**  
DO NOT MOW OR SLASH behind the furniture. Slash between the pavement and furniture only. Do not mow or slash when the ground is wet.

**Drain cleaning**  
Clean drains as required but minimise the disturbed area. Remove spoil from the site and dispose of in a designated area (not on native vegetation).

**Scraping/Crading**  
DO NOT scrape or grade beyond the table drain in this area.

**Removal of material**  
DO NOT remove any material from this area, apart from drain spoil, unless it is essential. This material is likely to contain threatened plants, bulbs or seeds.

**Stockpile & Parking**  
DO NOT stockpile materials or park within this area.

**Pruning**  
DO NOT prune any plants here unless it is essential for safety or sightlines.

**Clearing, Digging & Construction**  
ABSOLUTELY NO construction, clearing or digging is to occur within this area.

**Weeding**  
DO NOT spray herbicide behind the furniture in this area. No other weed control actions to be done in this area.

**Machinery and Equipment**  
Avoid bringing machinery into road reserves in Threatened Species Habitat areas. If machinery has to be brought in it must be cleaned of any soil contamination before entering to avoid weed transport.

**Where is it**  
Site 41 is on the Tasman Highway at the Lake Leake Road junction.

**Description of Values**  
Rare native shrubs occur in this area. There may be specific active management at this site but it also requires some modification of routine maintenance activities to protect and encourage rare native plants.

**Management**

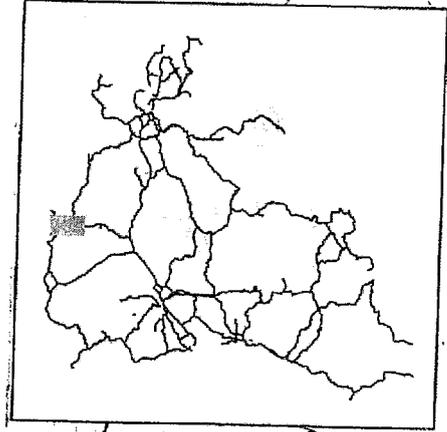
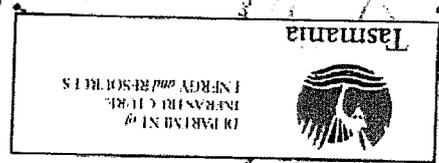
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**Threatened Species**

**41**

**Distance Restricted SLASHING**



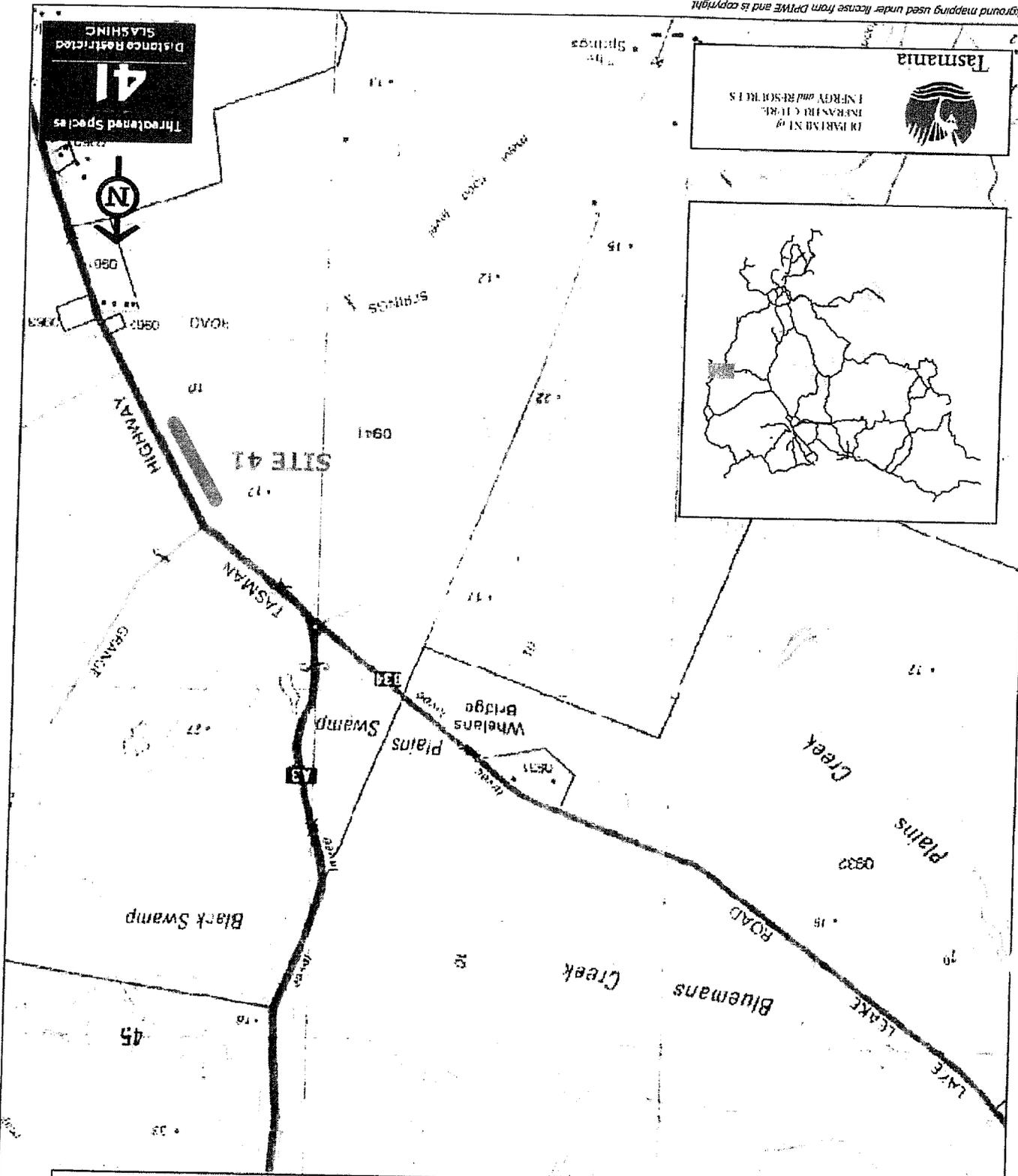
# HIGH PRIORITY CONSERVATION SITES

## SITE NUMBER 41

Where it is:  
Site 41 is on the Tasman Highway south of the Lake Leake Main Road junction.  
Description:  
Rare native shrubs occur in this area.

Scale 1:50,000

Threatened Species  
41  
Distance Restricted  
SLASHING



**THREATENED SPECIES HABITAT**

**DISTANCE RESTRICTED SLASHING**

**Mowing/ Slashing**  
 DO NOT MOW OR SLASH behind the furniture. Slash between the pavement and furniture only. Do not mow or slash when the ground is wet.

**Drain cleaning**  
 Clean drains as required but minimise the disturbed area. Remove spoil from the site and dispose of in a designated area (not on native vegetation).

**Scraping/Grading**  
 DO NOT scrape or grade beyond the table drain in this area.

**Removal of material**  
 DO NOT remove any material from this area, apart from drain spoil, unless it is essential. This material is likely to contain threatened plants, bulbs or seeds.

**Stockpile & Parking**  
 DO NOT stockpile materials or park within this area.

**Pruning**  
 DO NOT prune any plants here unless it is essential for safety or sightlines.

**Clearing, Digging & Construction**  
 ABSOLUTELY NO construction, clearing or digging is to occur within this area.

**Weeding**  
 DO NOT spray herbicide behind the furniture in this area. No other weed control actions to be done in this area.

**Machinery and Equipment**  
 Avoid bringing machinery into road reserves in Threatened Species Habitat areas. If machinery has to be brought in it must be cleaned of any soil contamination before entering to avoid weed transport.

**Where is it**  
 Site 42 is on the Tasman Highway at the Lake Leake Road Junction.  
 Rare native shrubs occur in this area. There may be specific active management at this site but it also requires some modification of routine maintenance activities to protect and encourage rare native plants.

**Management**  
 Work in Threatened Species Habitat Areas is permitted by a Public Authority Management Agreement. Placement of Enviromark field markers assists in identification of these areas. Please report any damaged or apparently missing Enviromark field markers to the DIER Environmental Planner ph 6233 8753.



**Threatened Species**

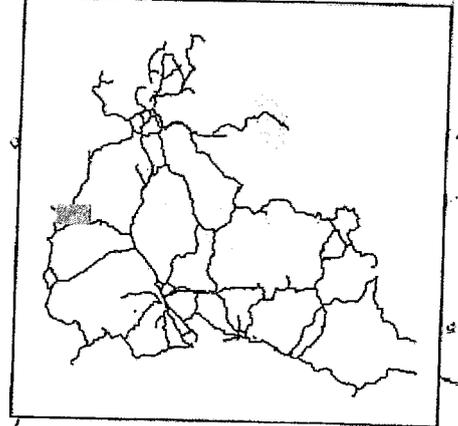
**42**

**Distance Restricted SLASHING**

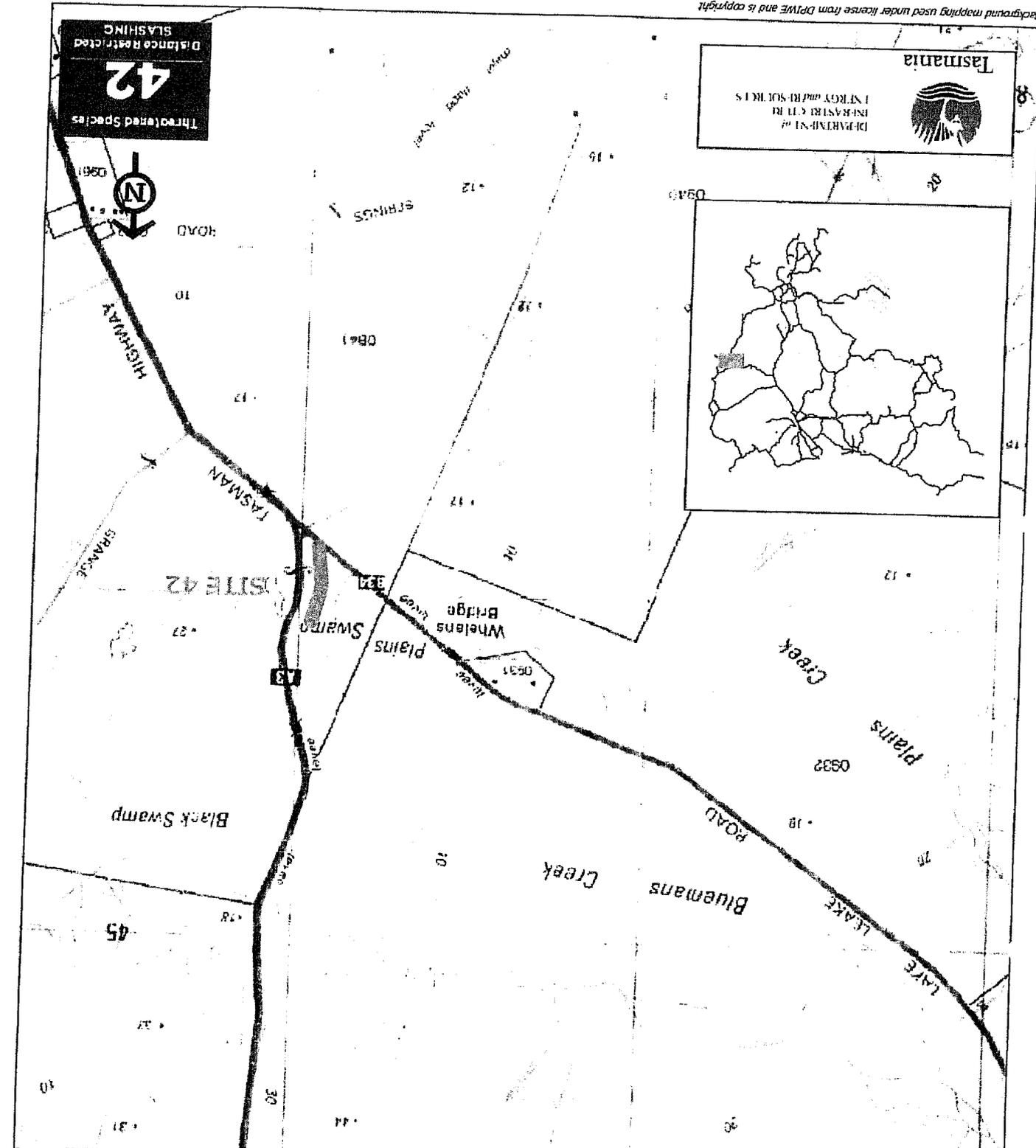
Tasmania



DEPARTMENT OF  
ENERGY AND RESOURCES



Threatened Species  
Distance Restricted  
**42**



# HIGH PRIORITY CONSERVATION SITES SITE NUMBER 42

Where it is:  
Site 42 is on the Tasman Highway near the Lake Leake Main Road Junction.  
Description:  
Rare native shrubs occur in this area.

Major

**THREATENED SPECIES HABITAT**

**NO SLASHING**

**Mowing/Slashing**

DO NOT MOW OR SLASH this area.

**Drain cleaning**

Clean drains as required but minimise the disturbed area. Remove spoil from the site and dispose of in a designated area (not on native vegetation).

**Scraping/Grading**

DO NOT scrape or grade beyond the table drain in this area.

**Removal of material**

DO NOT remove any material from this area, apart from drain spoil, unless it is essential. This material is likely to contain threatened plants, bulbs or seeds.

**Stockpile & Parking**

DO NOT stockpile materials or park within this area.

**Pruning**

DO NOT prune any plants here unless it is essential for safety or sightlines.

**Clearing, Digging & Construction**

ABSOLUTELY NO construction, clearing or digging is to occur within this area.

**Weeding**

DO NOT spray herbicide behind the furniture in this area. No other weed control actions to be done in this area.

**Machinery and Equipment**

Avoid bringing machinery into road reserves in Threatened Species Habitat areas. If machinery has to be brought in it must be cleaned of any soil contamination before entering to avoid weed transport.

**Where is it**

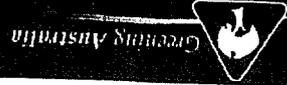
Site 43 is on the Tasman Highway south of the Lake Leake road junction.

**Description of Values**

A range of rare shrubs and herbs grow in this area. There may be specific active management at this site but it also requires some modification of routine maintenance activities to protect and encourage rare native plants.

**Management**

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**Threatened Species**

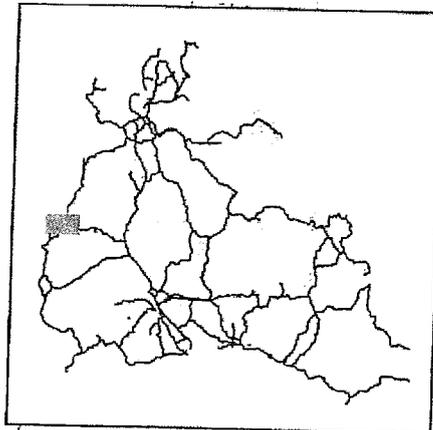
**43**

**NO SLASHING**

Tasmania



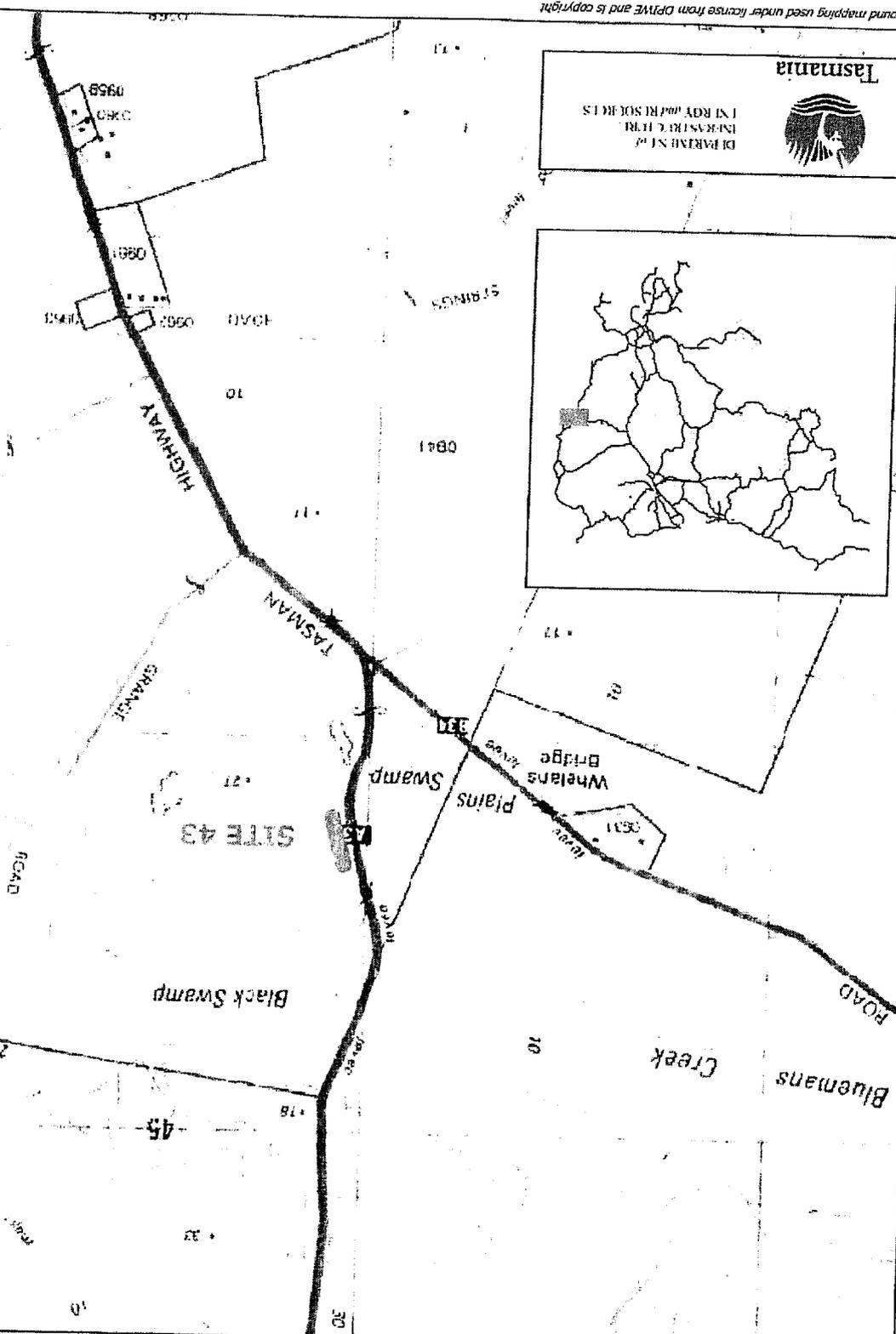
DEPARTMENT OF  
ENVIRONMENT AND  
PLANNING



Threatened Species  
**43**  
NO SLASHING



0856



# HIGH PRIORITY CONSERVATION SITES

## SITE NUMBER 43

Where it is:  
Site 43 is on the Tasman Highway north of the Lake Leake Main Road junction.  
Description:  
A range of shrubs and herbs grow in this area.