

PASTORAL LAND BOARD

**ANNUAL REPORT
2004/2005**



TABLE OF CONTENTS

Chairman’s Foreword	1
Membership of the Board	2
Functions of the Pastoral Land Board	2
Meetings of the Board held during 2004/2005	3
Pastoral Land Board Advisory Committees	4
Policy Issues and New Initiatives	5
Revised guidelines for clearing pastoral land	5
Methodology to be adopted to address identified land condition issues	6
Moratorium on land clearing in the Daly Region	7
Review of the <i>Pastoral Land Act</i>	7
Report on Pastoral Land Monitoring Programs	6
Monitoring programs	6
Establishment and reassessment of Tier 1 photo-point monitoring sites.....	6
Tier 2 monitoring program reports for each pastoral district.....	9
Tier 2 monitoring in the VRD Pastoral District	9
Tier 2 monitoring in the Sturt Plateau Pastoral District	11
Report on Pastoral Land Condition	12
General definition of land condition	12
Land Condition in the Darwin Pastoral District	13
Land Condition in the Katherine Pastoral District.....	13
Land Condition in the Roper Pastoral District	14
Land Condition in the VRD Pastoral District	15
Land Condition in the Sturt Plateau Pastoral District	16
Land Condition in the Gulf Pastoral District	17
Land Condition in the Barkly Pastoral District	17
Land Condition in the Tennant Creek Pastoral District	19
Land Condition in the Plenty Pastoral District	20
Land Condition in the Northern Alice Springs Pastoral District	20
Land Condition in the Southern Alice Springs Pastoral District	21
Specific Land Condition Issues	21
Implementation of Management Plans to address land condition issues	21
Buffel grass	21
Drought	22
Erosion on roads, fences and other infrastructure.....	22
Feral Animal Control Program – VRD Pastoral District.....	22
Feral Camels in Central Australia	23
Weeds	23
Report on Seasonal Conditions for 2004/2005 by Pastoral Districts	24
Value of the Cattle Industry to the Northern Territory	26
Applications considered by the Board during 2004/2005	27
Report on Land Clearing previously approved	28

TABLE OF CONTENTS

PHOTOS

Photo 1:	Banjo land system, Sturt Plateau Pastoral District, in good condition	17
Photo 2:	Remnant bluebush swamp in poor condition, Barkly Pastoral District	19
Photo 3:	Bluebush swamp in good condition, Barkly Pastoral District	19

TABLES

Table 1:	Tier 1 Photo-point Monitoring Sites established and reassessed 2004/2005	7
Table 2:	Weed issues in NT Pastoral Districts 2004/2005	23
Table 3:	Purpose and areas of pastoral land clearing approved 2004/2005	27
Table 4:	Clearing applications determined 2004/2005	27
Table 5:	Applications for non pastoral use determined 2004/2005	27
Table 6:	Purpose of non pastoral use approvals 2004/2005	27
Table 7:	Subdivision applications considered 2004/2005	28
Table 8:	Applications to convert to perpetual tenure considered 2004/2005	28
Table 9:	Report on land clearing previously approved	28

FIGURES

Figure 1:	Properties monitored under the Tier 1 Monitoring Program at 30 September 2005	8
Figure 2:	Time traces from 1983 to 2005 for 3 land types in the VRD	9
Figure 3:	Time traces from 1987 to 2005 for 4 land types in the VRD	10
Figure 4:	Time traces from 1987 – 2005 for 3 land types in the Sturt Plateau Pastoral District	11
Figure 5:	Darwin Pastoral District Tier 1 monitoring site condition status for 2004/2005	13
Figure 6:	Katherine Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment in 1993/1994	14
Figure 7:	Roper Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data 1993 – 1998	14
Figure 8:	VRD Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data 1993/1994	15
Figure 9:	VRD Pastoral District Tier 1 monitoring site status derived by land systems at establishment of sites in 1993/1994	15
Figure 10:	VRD Pastoral District Tier 1 monitoring site status derived by land systems at reassessment of sites in 2004/2005	16
Figure 11:	Sturt Plateau Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data 1993 – 1998	16
Figure 12:	Gulf Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data 1993 – 1996	17
Figure 13:	Barkly Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data 1993 – 1998	18
Figure 14:	Barkly Pastoral District Tier 1 monitoring site status across land use groups at establishment of sites 1983 – 1998	18
Figure 15:	Barkly Pastoral District Tier 1 monitoring site status across land use groups at reassessment 2003 – 2005	19
Figure 16:	Tennant Creek Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to previous assessment	20
Figure 17:	Plenty Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to previous assessment	20
Figure 18:	Northern Alice Springs Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to previous assessment	20
Figure 19:	Southern Alice Springs Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to previous assessment	21
Figure 20:	NT Rainfall Deciles 1 October 2004 – 30 September 2005	24

CHAIRMAN'S FOREWORD

As Chairman of the NT Pastoral Land Board I have great pleasure in presenting the Annual Report of the Board for 2004/2005. The report for this year covers the period 1 July 2004 to 30 September 2005 in line with the new reporting period as recommended by the Board and approved by the Minister in May 2005. Future reporting periods will be from 1 October to 30 September to coincide with seasonal condition reporting.

Achievements for the 2004/2005 year include:

- Implementation of the revised Guidelines for Clearing Pastoral Land which were published in April 2004.
- The development and continued implementation of management plans to address identified land condition issues on specific properties.
- Continued implementation and monitoring reassessments under the Tier 1 and Tier 2 monitoring programs.

The Northern Territory pastoral estate is about 619,000 km² in size. The gross value of production for the NT cattle industry was estimated at \$253 million in 2004, which represents 51% of the total Territory rural industries and fisheries production.

The Pastoral Land Board has the important function of monitoring the condition and changes in rangeland conditions and facilitating the sustainable use of pastoral land. The Board is committed to ensuring the Territory's pastoral resources are maintained at their current level of range condition, and where possible improve in condition.

The Board received a comprehensive report from its Advisory Committees covering regional land condition issues for 2004/2005. Information in this report has assisted greatly in preparation of the Board's Annual Report. Monitoring reports will continue to be of assistance as the programs progress and as more comparative data becomes available.

The Board would like to thank its Executive Officer, Ms Judy Bartolo, members of the Pastoral Land Board Advisory Committees and all those individuals who have given the Board invaluable support, assistance and advice. With this ongoing support the Board can continue to work towards sustainable use of pastoral land in the Northern Territory.

JB Forwood, AM
Chairman
NT Pastoral Land Board

MEMBERSHIP OF THE BOARD

CHAIRMAN

James Bower Forwood 3 year term - expiring 25 June 2007

MEMBERS

Russell William Anderson 3 year term – expired 25 June 2005
John Reginald Childs 3 year term – expiring 25 June 2007
Colleen Marie Costello Appointed 26 June 2005 for 3 year term – expiring 25 June 2008
Steven Craig 3 year term – expired 25 June 2005
Reappointed for 3 year term – expiring 25 June 2008
James Alexander Hayes 3 year term – expired 25 June 2005
Thomas George Henry Stockwell Appointed 26 June 2005 for 3 year term – expiring 25 June 2008

EXECUTIVE OFFICER

Judy Bartolo

FUNCTIONS OF THE PASTORAL LAND BOARD

Section 29 of the *Pastoral Land Act* outlines the functions of the Board:

- [a] to report regularly to, and as directed by, the Minister, but in any case not less than once a year, on the general condition of pastoral land and the operations of the Board;
- [b] to consider applications for the subdivision or consolidation of pastoral land and make recommendations to the Minister in relation to them;
- [c] to plan, establish, operate and maintain systems for monitoring the condition and use of pastoral land on a District or other basis;
- [d] to assess the suitability of proposed new pastoral leases over vacant Crown land;
- [e] to direct the preparation, and monitor the implementation of, remedial plans;
- [f] to monitor, supervise or cause to be carried out work in relation to the rectification of degradation or other damage to pastoral land;
- [g] to monitor the numbers and effect of stock and feral and other animals on pastoral land;
- [h] to monitor and administer the conditions to which pastoral leases are subject;
- [j] to make recommendations to the Minister on any matter relating to the administration of the Act;
- [k] to hear and determine all questions, and consider and make recommendations on all matters, referred to it by the Minister; and
- [m] such other functions as are imposed on it by or under the *Pastoral Land Act* or any other Act or as directed by the Minister.

Other functions outlined in the Act include:

- [I] to determine applications for clearing pastoral land [section 38(1)(h)]
- [II] to consider breaches of conditions referred by the Minister [section 41]
- [III] to consider and make recommendations to the Minister on applications for conversion of term pastoral leases to perpetual tenure [section 62]
- [IV] to administer the access provisions of the Act, including nomination of access routes under PART 6
- [V] to determine applications for non pastoral use of pastoral land [PART 7].

MEETINGS OF THE BOARD HELD DURING 2004/2005

Six meetings of the Pastoral Land Board were held during 2004/2005. In addition to these meetings, six matters were determined out of session.

- **The 59th Meeting was held in Katherine on 9 & 10 August 2004**

Apologies were received from Board member Steven Craig. The Board gave preliminary consideration to two applications to convert term pastoral leases to perpetuity and formally endorsed voluntary management plans. The Board also discussed the review of the *Pastoral Land Act*, including the review process and the role of the Board.

After the meeting, the Board undertook a property inspection as part of its consideration of an application to convert a term pastoral lease to perpetual tenure. The Board then attended the Victoria River Research Station field day held at Kidman Springs.

- **The 60th Meeting was held in Darwin on 10 November 2004**

Prior to the Board meeting, the Board undertook a property inspection to view progress with implementation of voluntary management plans on 2 properties. Matters considered at the Board meeting included consideration of a perpetuity application, non pastoral use applications, the review of the *Pastoral Land Act* including endorsement of the draft Key Issues Paper, and a the proposed NT Parks and Conservation Masterplan. The Board met with the Hon Dr Chris Burns, Minister for Lands and Planning to discuss various issues including the review of the *Pastoral Land Act*, non pastoral use and diversification, industry growth and development, whether offences and penalties under the existing legislation are appropriate and the use of introduced pasture species on pastoral land.

- **The 61st Meeting was held in Darwin on 21 March 2005**

Field inspections scheduled prior to the Board meeting were cancelled due to heavy rain. Matters considered at the Board meeting included applications to clear pastoral land, applications for non pastoral use and whether activities being undertaken required formal approval and implementation of voluntary management plans on 3 properties. The Board also resolved to seek endorsement from the Minister to amend the annual reporting period to coincide with seasonal condition reporting.

- **The 62nd Meeting was a Teleconference held on 3 May 2005**

Apologies were received from Board member John Childs. The Board determined an application for non pastoral use.

- **The 63rd Meeting was held in Katherine on 10 June 2005**

Prior to the meeting, the Board undertook two property inspections. Matters considered at the Board meeting including implementation of voluntary management plans on three properties, development of guidelines for introduced pastures on pastoral land, an application to convert a term lease to perpetual tenure, non pastoral use applications, and preliminary consideration of a subdivision application. As this was the last meeting for Board member Jim Hayes, the Chairman extended thanks for his valuable contribution over the past six years.

- **The 64th Meeting was held in Darwin on 14 & 15 September 2005**

This was the first meeting for two new members of the Pastoral Land Board and an induction session was held to provide an overview of the *Pastoral Land Act*, responsibilities of Board members and governance principles, operational arrangements for the Board, an overview of policies, guidelines and application processes and remuneration and accounting requirements. A briefing was also given on the role of the Pastoral Land Management Branch, organisational structure of the department and the pastoral land monitoring programs. Matters considered at the Board meeting included implementation of voluntary management plans on three properties, review of the pastoral lease reporting framework, options to extend Tier 2 monitoring throughout the Territory, non pastoral use applications and an application to clear pastoral land.

PASTORAL LAND BOARD ADVISORY COMMITTEES

The Pastoral Land Board Advisory Committee was formed in 1992 to assist the Board in the design of a rangeland monitoring system and to coordinate the activities of the separate government agencies with responsibility for the monitoring of pastoral land condition.

TERMS OF REFERENCE AND OBJECTIVES

[Reviewed and endorsed in September 1998]

1. To recommend the options for monitoring range condition and trend throughout the Territory.
2. To coordinate technical advice to the Pastoral Land Board in relation to the monitoring of the condition and trend of pastoral land.
3. To report regularly on a District and quantitative basis, on the condition and trend of pastoral land including evaluation and interpretation of available data, and where required on specific issues through the Chairman of the Advisory Committee to the Pastoral Land Board.
4. To rank areas of the Territory in terms of their priority for attention and their susceptibility to land degradation and to recommend to the Board those areas which are in need of immediate attention.
5. To provide advice to the Pastoral Land Board on other matters as and when required.

A separate Advisory Committee was formed for Central Australia in 2001, to ensure regional officers are actively involved in providing technical advice and recommendations to the Board on pastoral land management issues for central Australia (Barkly, Tennant Creek, Plenty, Northern Alice Springs and Southern Alice Springs Pastoral Districts).

In 2003, membership of the northern Advisory Committee was restructured to include relevant departmental officers from the Katherine region. This has resulted in greater participation by regional officers on the Advisory Committee.

TERMS OF REFERENCE FOR THE ADVISORY COMMITTEE FOR CENTRAL AUSTRALIA:

To provide technical advice and recommendations on pastoral land management issues for central Australian pastoral districts. This falls into 3 main categories:

1. Pastoral Land Monitoring Programs

- Make recommendations to the Pastoral Land Board on options for the further development and implementation of the Pastoral Land Monitoring Programs for central Australian pastoral districts.
- Co-ordinate technical advice to the Pastoral Land Board on the monitoring of pastoral land conditions and trend throughout central Australian pastoral districts.

2. Reporting Requirements

Provide regional input to reports to the Pastoral Land Board including the Annual Regional Land Condition Report.

3. Advice on other issues

- Provide advice to the Pastoral Land Board on other matters as required.
- Consider policy issues relevant to pastoral land management in central Australian pastoral districts including:
 - Reporting on the need for any policy reviews to the Chairman of the Advisory Committee;
 - Development of policy papers specific to central Australian pastoral districts;
 - Providing regional input on Territory – wide policy reviews.

No formal meetings of the Advisory Committee were held during 2004/2005. Matters requiring a consensus position were circulated out of session prior to submission of reports to the Board.

POLICY ISSUES & NEW INITIATIVES

REVISED GUIDELINES FOR CLEARING PASTORAL LAND

Revised Guidelines for Clearing Pastoral Land were adopted in April 2004. These guidelines were implemented during 2004/2005 including public notification of applications, circulation to all relevant government agencies and assessment using similar criteria to the *Planning Act*, and standardised approval documentation with a defined term of approval for commencement and completion of clearing works.

MORATORIUM ON LAND CLEARING IN THE DALY REGION

No applications to clear pastoral land within the ‘Daly Region’ were lodged during 2004/2005.

REVIEW OF THE PASTORAL LAND ACT

A discussion paper on the review of the *Pastoral Land Act* was released in July 2004. A total of 24 submissions were lodged in response to this discussion paper. A Key Issues paper was issued in December 2004 which summarised issues raised during the consultation period, for further consideration and comment by interested parties. A Steering Committee was established which included members of the Pastoral Land Board and relevant departmental officers to oversee the review process.

REVIEW OF THE PASTORAL LEASE REPORTING FRAMEWORK

In September 2005, the Board requested a review of the pastoral lease reporting framework to ensure guidelines and procedures are in place for the identification, investigation, reporting and referral of land condition issues to the Board.

REPORT ON PASTORAL LAND MONITORING PROGRAMS

MONITORING PROGRAMS

The Pastoral Land Board, the pastoral industry and the Northern Territory government are working together to maintain or improve the condition of the Territory's pastoral land. This land, held as pastoral leases, comprises around 46% of the Territory. Maintenance of this natural resource in good condition is essential for a profitable and sustainable pastoral industry.

Monitoring and reporting on the condition of pastoral land is a key function of the Pastoral Land Board under the *Pastoral Land Act*. The Board is also responsible for instigating remedial action to restore pastoral land condition. In support of the Board, the Department of Infrastructure, Planning and Environment operates a two-tiered pastoral land monitoring system. Both tiers of the monitoring program aim to assist pastoralists in making better management decisions.

The Tier 1 program uses photos and visual assessment of photo-point sites to assess pastoral land condition and changes in condition over time. Pastoralists are encouraged to use the photo-point sites to become more aware of pasture plants and the level of pasture use by stock. This in turn will help them better manage their livestock and land.

Tier 2 programs are designed to provide an objective assessment of pastoral land condition using remote sensing and ground-based assessment methods.

ESTABLISHMENT AND REASSESSMENT OF TIER 1 PHOTO-POINT MONITORING SITES

The Tier 1 monitoring program commenced in 1993. By 30 September 2005, a total of 2,235 Tier 1 photo-point monitoring sites had been established on 223 properties, which includes 78 monitoring sites on 11 properties held under other tenure such as Crown leases and Aboriginal land. Generally, at least one site is located in each paddock on a preferred grazing land system. These sites will provide a bench mark for pastoralists to assess pasture changes over time.

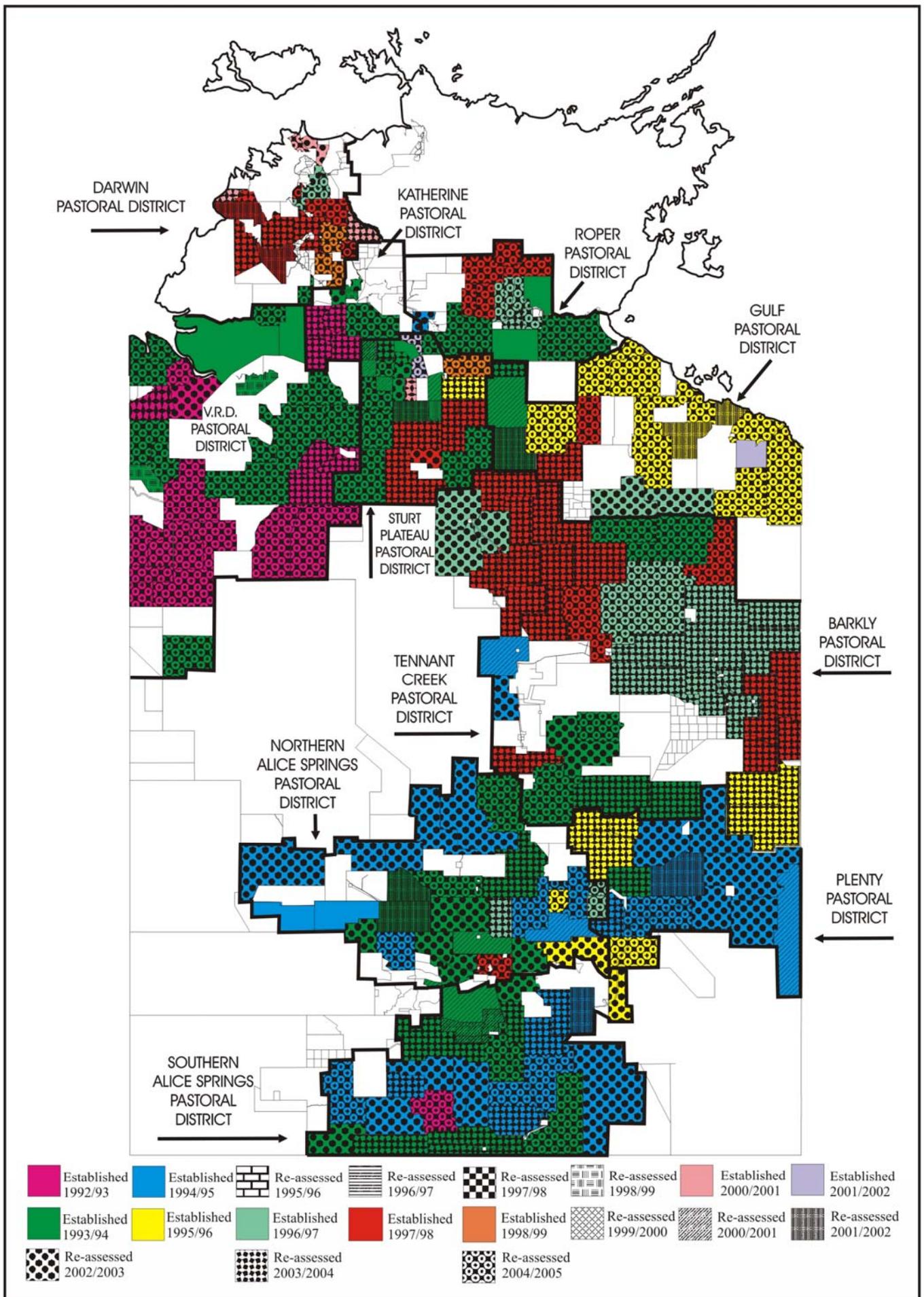
During the extended reporting period for 2004/2005 (1 July 2004 – 30 September 2005) a total of 774 monitoring sites were reassessed on 86 properties and 37 new monitoring sites were established.

Table 1 on page 7, summarises the establishment and reassessment of Tier 1 photo-point monitoring sites during this reporting period.

The map at Figure 1 on page 8 outlines the property locations of these sites and the history of the establishment of Tier 1 monitoring sites and re-assessment.

Pastoral District	Total No of Sites	No of Properties <i>[with Tier 1 sites]</i>	Average Sites/Property	New Sites Established 2004/2005	Reassessed 2004/2005	
					Sites	Properties
DARWIN 21 Pastoral Leases in District	144	21	7	3	64	11
KATHERINE 7 Pastoral Leases in District	49	7	7	0	8	1
ROPER 10 Pastoral Leases in District	51	10	5	2	43	9
VRD 25 Pastoral Leases in District	338	25	13	11	253	20
STURT PLATEAU 27 Pastoral Leases in District	176	26	7	3	66	9
GULF 18 Pastoral Leases in District	111	17	7	1	54	9
BARKLY 31 Pastoral Leases in District	445	31	14	2	84	5
TENNANT CREEK 8 Pastoral Leases in District	80	8	10	4	10	2
PLENTY 14 Pastoral Leases in District	157	14	11	0	24	3
NORTHERN ALICE SPRINGS 30 Pastoral Leases in District	333	29	11	2	89	9
SOUTHERN ALICE SPRINGS 26 Pastoral Leases in District	273	24	11	1	65	6
OTHER TENURE All Pastoral Districts <i>Aboriginal Land and Crown Leases</i>	78	11	7	8	14	2
TOTALS	2235	223	10	37	774	86

**Table 1: Tier 1 Photo-point Monitoring Sites established and reassessed 2004/2005
1 July 2004 – 30 September 2005**



PROPERTIES MONITORED UNDER THE TIER 1 MONITORING PROGRAM AS AT 30 SEPTEMBER 2005

Figure 1: Properties monitored under the Tier 1 Monitoring Program at 30 September 2005

TIER 2 MONITORING PROGRAM

Tier 2 Monitoring in the Darwin Pastoral District

There are no Tier 2 monitoring programs, specifically targeted at pastoral properties, in the Darwin Pastoral District. An integrated catchment project for the Mary River Catchment, involving some satellite monitoring, was completed during 2002. The study area included several pastoral properties.

Tier 2 Monitoring in the Katherine Pastoral District

There are no Tier 2 monitoring programs in the Katherine Pastoral District.

Tier 2 Monitoring in the Roper Pastoral District

There are no Tier 2 monitoring programs in the Roper Pastoral District.

Tier 2 Monitoring in the VRD Pastoral District

The Tier 2 monitoring program continued in the VRD with the updating of time series datasets and ground data collection. Ground data was collected in the dry season of 2005.

Long Term Cover Change, VRD Core scene 1983 – 2005

Time traces for three pastorally significant land types, basaltic plains, undulating basaltic hills and lateritic plains, were analysed and are shown in Figure 2.

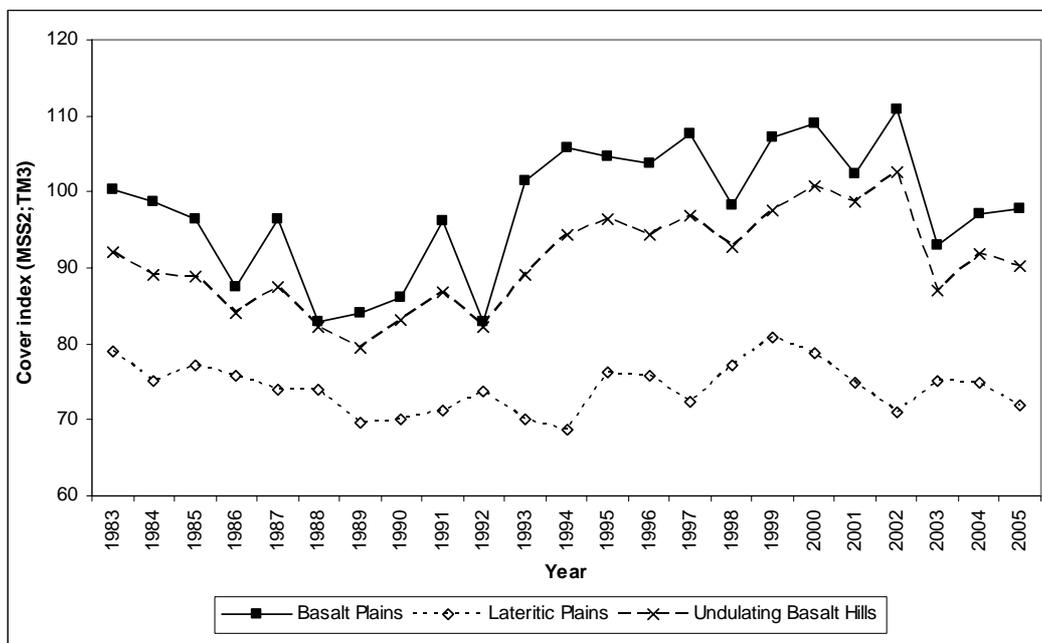


Figure 2: Time traces of 3 significant land types within the VRD Core scene for the period 1983-2005.

For the period 1993 to 2005, an increase in cover level trend was observed for the basaltic land types. This has been attributed to the increased wet season rainfall experienced by the district with many years experiencing unprecedented rainfall levels.

The year 2003 had a decline in cover levels for both basaltic land types. This is thought to be a result of the high number of fires occurring in the core area in the previous 2 years, due to the large amount of vegetation growth and biomass to burn.

The years 2004 and 2005 demonstrated the ability of the basaltic land type to respond to favourable conditions with an increase in cover trend.

The lateritic plains land type had a relatively stable cover trend for the period 1983 to 1992. After this, cover levels varied from year to year. This is thought to be a result of the increased biomass of vegetation resulting in increased fire activity. For the years 2004 and 2005, the lateritic areas had a slight decrease in cover levels, again as a result of fire activity.

Long Term Cover Change, NTWA Mosaic 1987 - 2005

Time traces were analysed for 4 significant land types across the VRD Pastoral District (Figure 3).

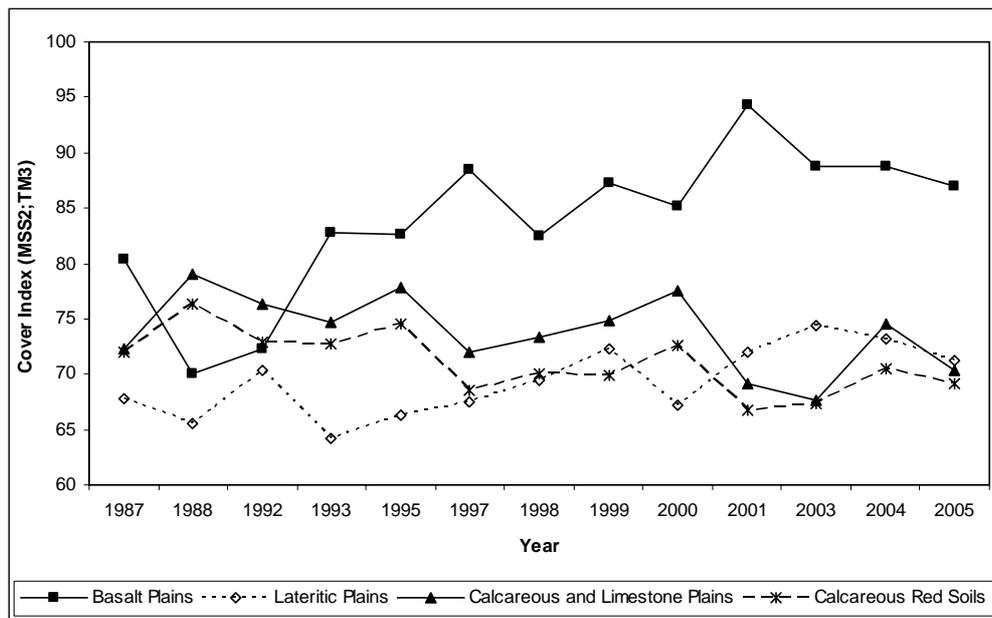


Figure 3: Time traces of 4 significant land types within the VRD Pastoral District for the period 1987-2005.

The basaltic plains of the VRD pastoral district have increasing cover levels for the period 1987 to 2005. This corresponds to a run of overall 'higher than average' seasons beginning with the wet season of 1991/1992.

These results were also observed within the core scene dataset. For the years 2004 and 2005 the cover levels declined slightly, but remained relatively stable.

The calcareous land types have experienced relatively stable cover levels tending to an increase in trend for the time period 1987 to 2005. Decreasing cover level trends were observed for the year 2001 and 2003; these were thought to be attributed to increased fire activity within the region.

For the years 2004 to 2005 a slight decrease in cover trend was observed for both calcareous land types, but remained relatively stable.

For the Lateritic plains across the district, an increasing trend of cover levels was observed for the period 1987 to 2005. A slight decrease in cover levels was also observed for the years 2004 to 2005.

Tier 2 Monitoring in the Sturt Plateau Pastoral District

Long Term Cover Change, Sturt Plateau Scene 1987 – 2005

The Sturt Plateau has been divided into 3 main land types derived from ground monitoring data integrated with satellite imagery.

The sand land type covers the majority of the Sturt Plateau with lesser amounts of lateritic and alluvium land types. Trends of cover levels were assessed for the three land types and are shown in Figure 4.

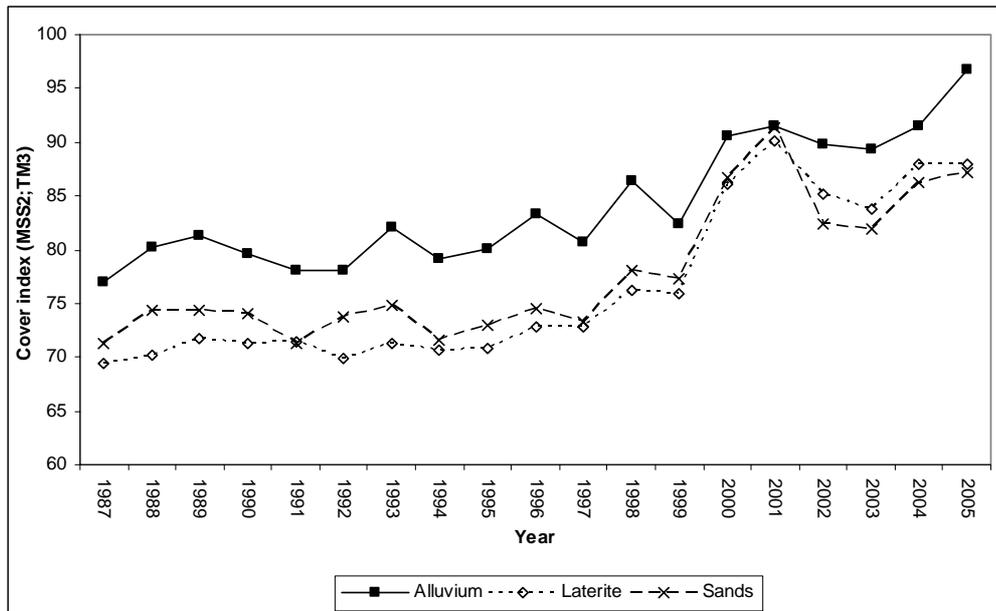


Figure 4: Time traces of 3 significant land types within the Sturt Plateau Pastoral District for the period 1987-2005.

Within the Sturt Plateau region, increasing cover trend levels were observed for the analysed land types. Trends for the period 1987 to 2000 were very stable with little variation in cover levels for all land types. Increased levels were observed for 2001 for the sands and laterite land types; this can be attributed to increased rainfall and large amounts of growth. The levels in the following year fell slightly but were able to recover to former levels in the following years.

Within the last season 2004 to 2005, the alluvium land type had a marked increase in cover levels and trend, in comparison to the laterite and sand land types which remained stable for the same period. The cover levels for the Sturt Plateau have been stable with an increasing trend. This trend has been greater in the later part of the analysed period due to increased wet seasons across the district.

Tier 2 Monitoring in the Gulf Pastoral District

There are no Tier 2 monitoring programs in the Gulf Pastoral District.

Tier 2 Monitoring in the Barkly Pastoral District

There were no Tier 2 monitoring programs undertaken in the Barkly Pastoral District during 2004/2005.

Tier 2 Monitoring in the Tennant Creek Pastoral District

There are no Tier 2 monitoring programs in the Tennant Creek Pastoral District.

Tier 2 Monitoring in the Plenty Pastoral District

There are no Tier 2 monitoring programs in the Plenty Pastoral District.

Tier 2 Monitoring in the Northern Alice Springs Pastoral District

There are no Tier 2 monitoring programs in the Northern Alice Springs Pastoral District.

Tier 2 Monitoring in the Southern Alice Springs Pastoral District

There were no Tier 2 monitoring programs undertaken in the Southern Alice Springs Pastoral District during 2004/2005.

REPORT ON PASTORAL LAND CONDITION

GENERAL DEFINITION OF LAND CONDITION

A general definition of landscape condition is provided by the Commonwealth Land and Water Audit (2001) “as a value judgement related to the worth of a landscape for a particular use”. In the Northern Territory, where maintaining natural pastures is a primary goal of sustainable pastoral management, landscape condition is most usefully defined in terms of the ability of the land to maintain productivity for future generations. Land condition in the Northern Territory pastoral estate, can best be described by three main indicators:

- The distribution of water and nutrients in a landscape often scarce in these essential components, which in turn affects,
- The productivity and composition of pasture plant species, and,
- The presence of feral animals and noxious weeds.

For a program of land condition monitoring to be successful in determining trends in land condition, it must be implemented through the use of agreed criteria and indicators. The indicators described above are widely accepted as being useful measures of land condition by pastoralists and governments in many of the rangelands throughout the world.

The Tier 1 monitoring system of ground-based photo points has proved to be invaluable as a means of recording physical changes in the grazing environment. It is an excellent extension and educational tool and has provided the means by which objective data on pasture changes can be acquired from permanently located sites.

The Tier 2 program has yielded encouraging results. The work completed so far indicates that the analysis of satellite data complemented with ground sites can record trends in condition and will assist materially in lease scale decision making. The Board encourages increased use of Tier 2 monitoring programs as a monitoring tool to report on regional land condition.

An assessment of pastoral land condition in pastoral districts throughout the Territory has been given below using Tier 1 monitoring data.

LAND CONDITION IN THE DARWIN PASTORAL DISTRICT

The data derived from the Tier 1 assessments performed during the 2004/2005 reporting period indicates that land condition in the Darwin district is predominantly good with 72% of sites considered to be in good condition, 23% in fair condition, and 5% in poor condition.

Tier 1 monitoring data suggests that land condition in the Darwin district remains similar to that of the previous year despite slightly below average rainfall for the 2004/2005 wet season.

A number of floodplain properties have entered into a voluntary management plan to address previously identified land condition issues. Interim feedback regarding properties involved in voluntary management plans indicates improved progress in addressing soil erosion and weed control issues.

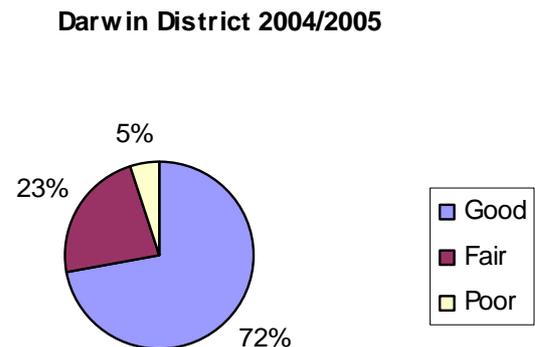


Figure 5: Darwin Pastoral District Tier 1 monitoring site condition status for 2004/2005 reassessments

LAND CONDITION IN THE KATHERINE PASTORAL DISTRICT

There are 7 pastoral leases in the Katherine Pastoral District, with a total of 49 Tier 1 monitoring sites established since the program commenced in 1993. During the 2004/2005 reporting period reassessments were carried out on 1 lease in the district, which was the fourth round of reassessments since the sites were established on that property.

As illustrated in the Figure 6 there has been a significant improvement in land condition at Tier 1 sites on this property. At establishment in 1993/1994, 52% of sites were assessed as good and 40% fair. In comparison, the 2004/2005 reassessment rated 86% of sites in good condition, 6% as fair, 2% as poor and 6% not reassessed. One site has remained in a poor condition since establishment.

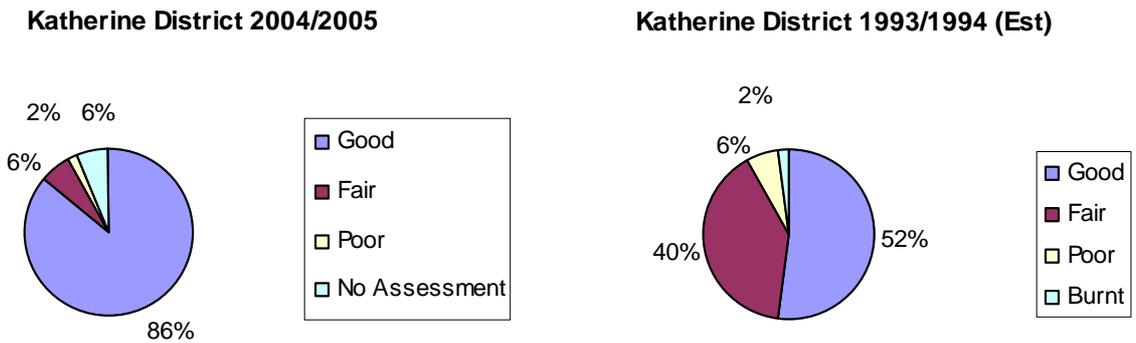


Figure 6: Katherine Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment in 1993/1994

Fence line and track erosion, and weeds are the main factors having an adverse effect on rangeland condition in the Katherine Pastoral District. There are a limited number of areas that show the effects of historical heavy grazing pressure; however in the main these are slowly recovering as a result of more intensive management practices and the development of additional controlled watering points. Lessees in the District are aware of the threat fence line and track erosion poses to their properties and are generally taking action to repair past damage and prevent further occurrences. Weeds, in particular Bellyache Bush (*Jatropha gossypifolia*) pose a serious threat to the Districts' landscape, biodiversity and productivity.

LAND CONDITION IN THE ROPER PASTORAL DISTRICT

Reassessments were carried out on 9 leases in the Roper Pastoral District during the 2004/2005 reporting period. Tier 1 monitoring reassessments indicate that land condition in the Roper District is stable and there has been an increase in the number of sites being assessed in good condition (Figure 7).

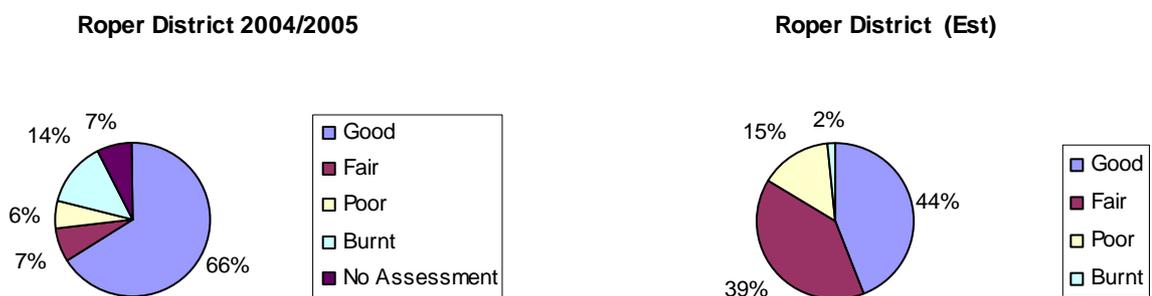


Figure 7: Roper Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data (1993 – 1998).

LAND CONDITION IN THE VRD PASTORAL DISTRICT

To provide an analysis of land condition in the VRD Pastoral District, Tier 1 monitoring data has been analysed to detect changes in site condition at 201 sites that were established in 1993/1994 and reassessed during the 2004/2005 reporting period (Figure 8). All sites have been aggregated into condition classes of good, fair and poor. The sites were then broken down into land systems to identify any trends where change has occurred.

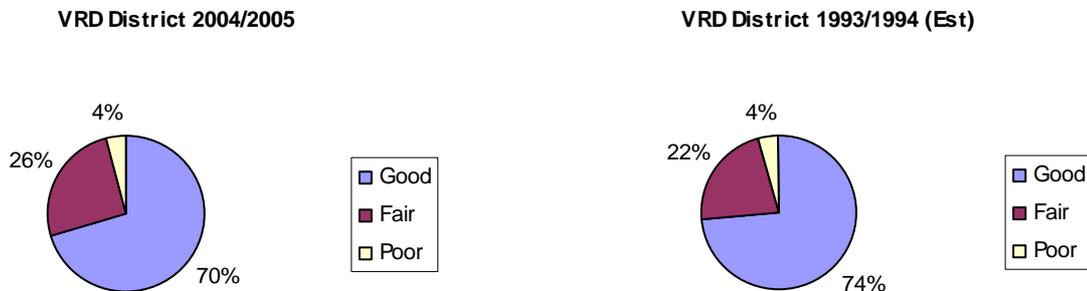


Figure 8: VRD Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data (1993/1994).

The decline in site condition is considered to be due to the impact of fire combined with either a poor or late wet season; which has reduced ground cover and limited perennial growth. These sites should return to good condition following a favourable wet season.

The majority of sites in the VRD Pastoral District are located on 3 significant land types for pastoral production, Alluvial, Basaltic and Relic Clay Plain. To detect trends or changes in land condition the major land systems of the Victoria District have been analysed and site condition compared over time. As illustrated in Figures 9 and 10, the sites have remained relatively stable over the ten year period between establishment and reassessment. A minor change between fair and good has occurred, the number of good sites has declined by 7 and fair sites have increased proportionately. The number of poor sites has remained consistent.

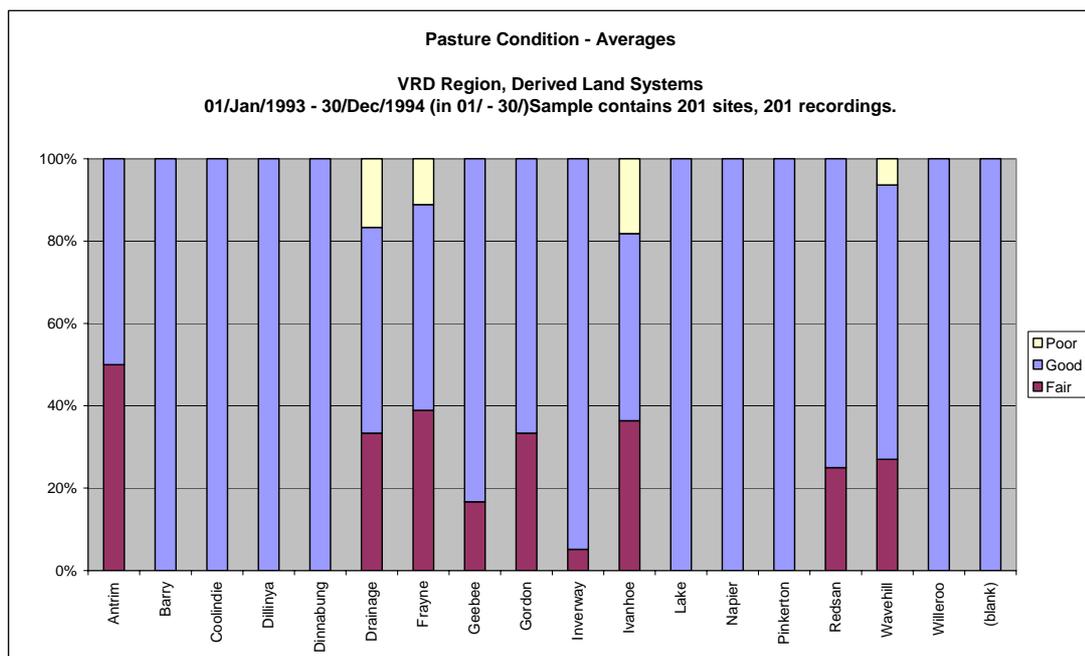


Figure 9: VRD Pastoral District Tier 1 monitoring site status derived by land systems at establishment of sites in 1993/1994

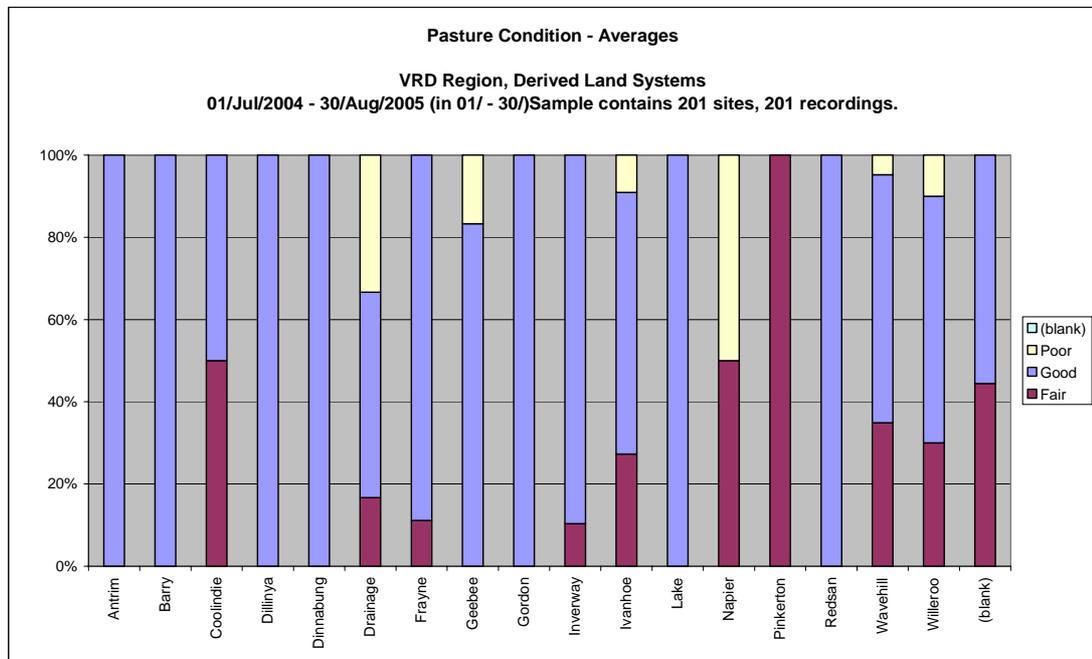


Figure 10: VRD Pastoral District Tier 1 monitoring site status derived by land systems at reassessment of sites in 2004/2005

Analysis of Tier 1 data over two time periods (site establishment and reassessment) did not show a substantial change towards poor condition across any land type. Rather, a modest decline overall in the number of good condition sites occurred. This indicates stable land condition in the VRD Pastoral District between 1993 and 2004/2005 for the sites reassessed in that period.

LAND CONDITION IN THE STURT PLATEAU PASTORAL DISTRICT

The Tier 1 monitoring program has been carried out on a 3 year reassessment cycle since sites were first established and the Sturt Plateau Pastoral District is subject to regular routine inspections in conjunction with PWES compliance, clearing and term lease inspections.

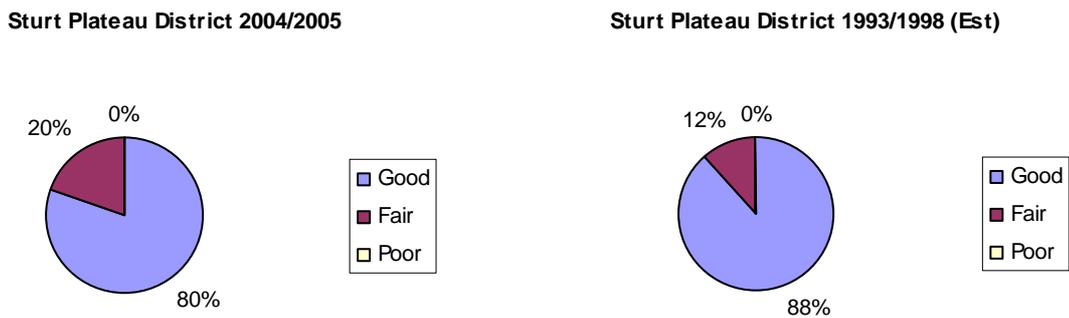


Figure 11: Sturt Plateau Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data (1993 - 1998).

Tier 1 sites established 1993/98 and reassessed in 2004/2005 have been grouped across Sturt Land Systems as described in "Land Resources of the Sturt Plateau" or by soil classifications as described in the Atlas of Australian Soils where land system data was not available to analyse land condition trend. As depicted in Figure 11, land condition has remained stable.

At establishment, 45 sites were classed as in good condition, 6 sites in fair condition, and no sites were considered to be in poor condition. The only changes have been a decrease of 4 sites in good condition and a corresponding increase of sites in fair condition on the Czb soil type. Two sites on the Czs soil type and 1 site on the Banjo and Bulwaddy land systems have improved from fair to good condition. Sites not reassessed, burnt or not established for more than 5 years have been excluded from the data set.



Photo 1: Banjo Land system in the Sturt Plateau Pastoral District in “good” condition.

No land condition issues have been identified in the Sturt Plateau Pastoral District during Tier 1 inspections or by the Tier 2 monitoring program

LAND CONDITION IN THE GULF PASTORAL DISTRICT

Nine pastoral properties in the Gulf Pastoral District were reassessed during the 2004/2005 reporting period were identified in the 2003/2004 land condition report as having or being suspected of having land condition issues. Eight pastoral lease properties were reassessed during the reporting period. Since the initial establishment stage in 1993-1996 and subsequent reassessment during the period 1996-2001, Tier 1 data indicates that the rangeland of the Gulf is improving. Since establishment 110 of the 113 sites established have been reassessed three or more times. The data in Figure 35 represents sites that have 3 more reassessments since establishment.

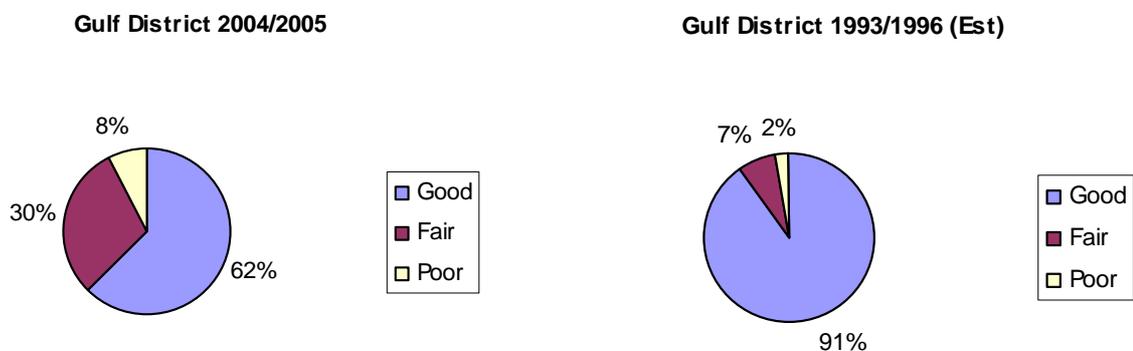


Figure 12: Gulf Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data (1993 - 1996).

LAND CONDITION IN THE BARKLY PASTORAL DISTRICT

Tier 1 reassessments carried out in 2004/2005 completed the third round reassessments for five properties that had not been reassessed at least three times. Despite the poor 2004/2005 wet season and fires in late 2004, site condition has remained stable or improved since the sites were established. The poor 2004/2005 wet season resulted in limited seasonal growth and reduced pasture yield. There was a significant lack of annual species in the bio-mass by the time the inspections were carried out in the latter half of 2005.

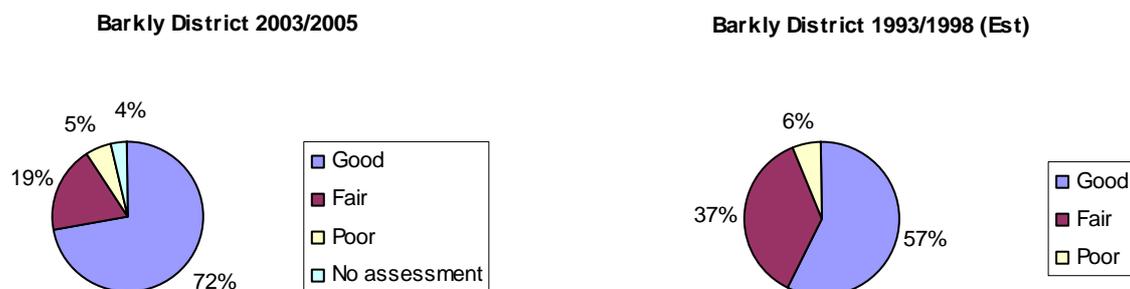


Figure 13: Barkly Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to establishment data (1993 - 1998).

Pastoral Land Board Annual Reports for 2000/2001 and 2001/2002 reported that land condition in the Barkly Pastoral District may be in decline. These statements were based on limited field visits and viewing satellite images depicting anomalies such as fence line effects. In response to these statements the Pastoral Land Management Branch, Department of Lands, Planning and Environment, ensured that the Barkly Pastoral District was made a priority for Tier 1 reassessments. From 2003 to 2005, a total of 409 Tier 1 sites were programmed for reassessment.

Of the 409 sites programmed for reassessment, 294 were assessed as being in good condition, 78 as fair and 22 in poor condition. Fifteen (15) sites were not reassessed, for various reasons. The majority of sites in poor condition were established in this condition at management request to monitor the effect of changed grazing practises.

To detect trend over the period between establishment and reassessment in 2004/2005, the Barkly land systems were classified into land use groups based on the groupings established by C.S Christian and G.A. Stewart. These broad categories were used to relate site condition to the main land types used for grazing.

The data represented in Figures 14 and 15 represents the 81 sites that had recordings made during both periods. Comparisons between establishment and reassessment show that Mitchell grass country has remained stable. The number of sites located on Inferior Mitchell grass in good condition has increased substantially from 10 sites to 21 and there has been a corresponding change in the number of sites in fair condition with a decrease of 9.

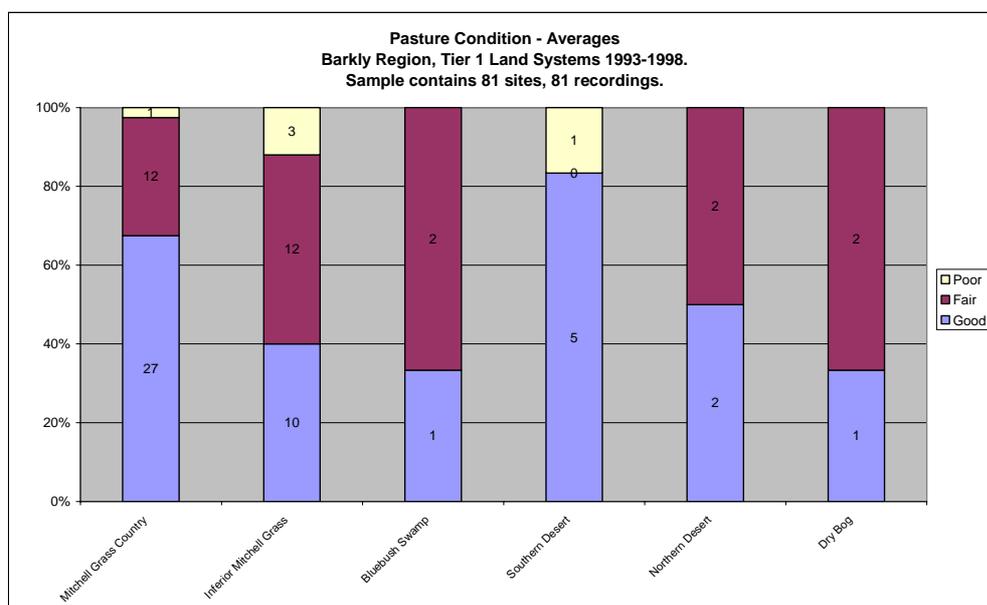


Figure 14: Barkly Pastoral District Tier 1 monitoring site status across land use groups at establishment of sites 1993 - 1998

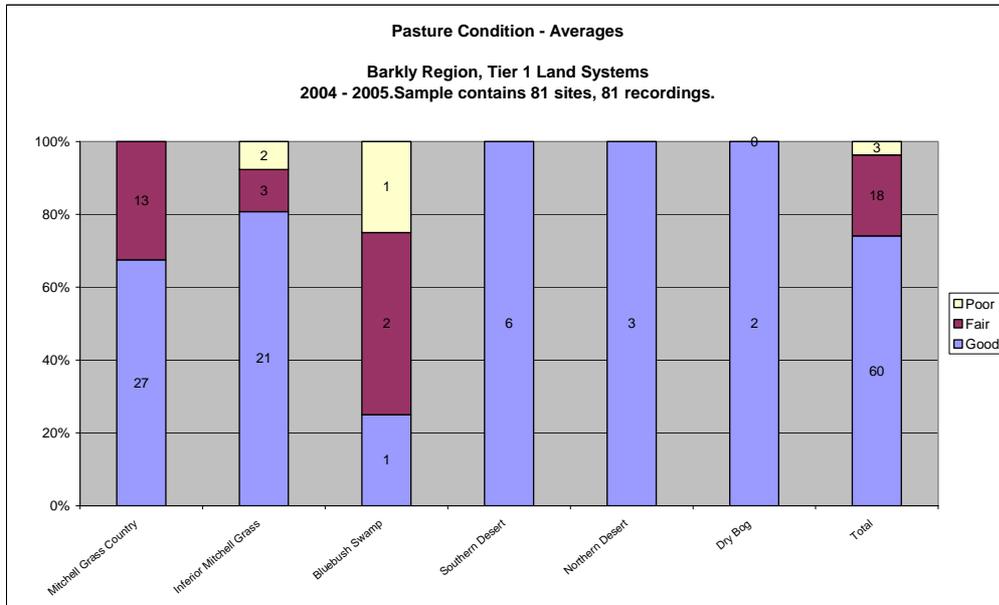


Figure 15: Barkly Pastoral District Tier 1 monitoring site status across land use groups at reassessment 2003 - 2005

Although Tier 1 data indicates the majority of the Barkly Pastoral District is in good or fair condition, further investigation is required to confirm this. During routine inspection, areas of low perennial cover were observed along water courses particularly along the Playford River. There also appears to be a decrease in Bluebush (*Mairean species*) in some areas, whereas in other areas the species appears to be stable. Both these concerns may be the result of flooding followed by poor rainfall.



Photo 2: Remnant Bluebush Swamp in poor condition, Barkly Pastoral District



Photo 3: Bluebush Swamp in good condition, Barkly Pastoral District

LAND CONDITION IN THE TENNANT CREEK PASTORAL DISTRICT

Two properties in the Tennant Creek Pastoral District were reassessed during 2004/2005, with 10 of the existing 13 monitoring sites being assessed. Overall, land condition has changed little on the properties assessed (Figure 16). The apparent drop in the number of sites rated good can be explained by no recordings on the three sites that could not be located. Four new monitoring sites were established in the district during 2004/2005.

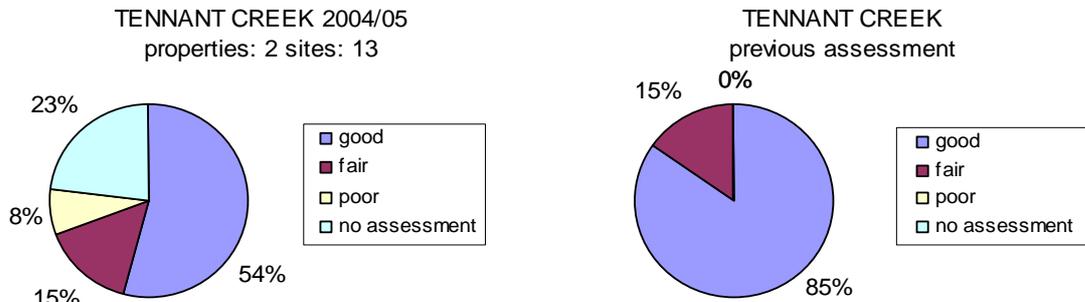


Figure 16: Tennant Creek Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to previous assessment

LAND CONDITION IN THE PLENTY PASTORAL DISTRICT

Three properties in the Plenty Pastoral District were reassessed during 2004/2005, with a total of 24 monitoring sites being assessed. Overall, land condition has changed little on the properties, the apparent drop in the number of sites rated good can be explained by eight sites that could not be located.

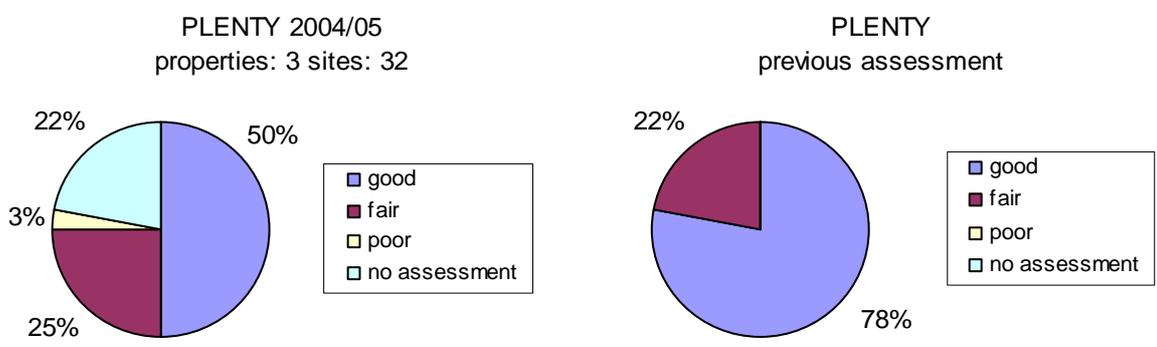


Figure 17: Plenty Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to previous assessment

LAND CONDITION IN THE NORTHERN ALICE SPRINGS PASTORAL DISTRICT

Nine properties in the Northern Alice Springs Pastoral District were reassessed during 2004/2005. A total of 89 sites were reassessed (10 missed). Land condition was similar to the previous assessment for the sites inspected in 2004/2005, although there was an increase in the number of sites rated poor and fair across the district. Ten sites moved into the poor category since last being assessed, but these were spread over several properties, making it hard to generalise. Two new monitoring sites were established in the district during 2004/2005.

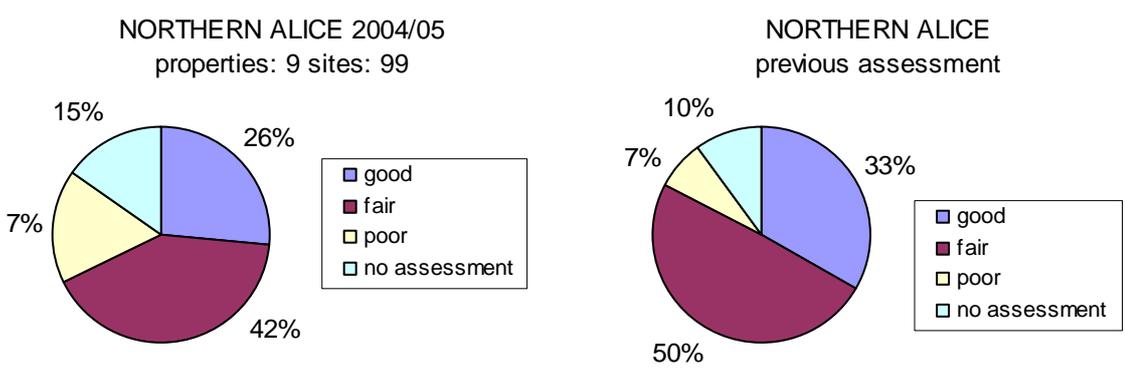


Figure 18: Northern Alice Springs Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to previous assessment

LAND CONDITION IN THE SOUTHERN ALICE SPRINGS PASTORAL DISTRICT

Six properties in the Southern Alice Springs Pastoral District were reassessed during 2004/2005. A total of 65 sites were reassessed (10 were missed). There was a significant drop in the number of sites rated as good across the district, with only 16 sites out of 41 previously rated as good remaining so in 2004/2005. This significant drop in land condition occurred across four of the six properties. Some of the decline can be explained by sites that could not be located, but where significant decline in land condition was reported, further investigation by Rangeland Monitoring Officers is ongoing. One new monitoring site was established in the 2004/2005.

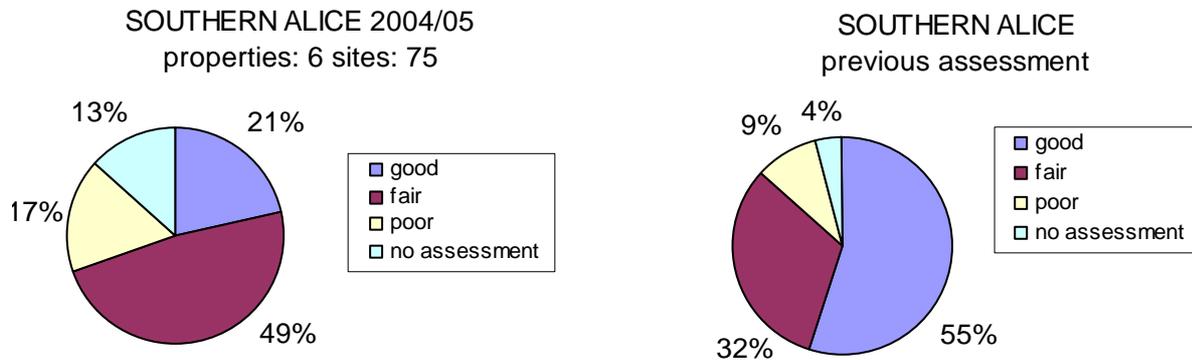


Figure 19: Southern Alice Springs Pastoral District Tier 1 monitoring site condition status for 2004/2005 compared to previous assessment

SPECIFIC LAND CONDITION ISSUES

Implementation of Management Plans to address Land Condition Issues

In cases where specific land condition issues are identified on a pastoral property, the Pastoral Land Board may request the lessee to prepare a management plan detailing the action to be taken to address the land management issues which have been identified. It is a basic tenet of the *Pastoral Land Act* that pastoral lessees acknowledge their duty to adopt sound management practices and their responsibility to address any land condition issues that may arise. In line with this philosophy, the Pastoral Land Board seeks voluntary collaboration with pastoral lessees to address land condition issues and implementation of rehabilitation programs.

During 2004/2005 action continued in respect of implementation of management plans on nine properties.

Buffel Grass

Progress has been made with a study on buffel grass being coordinated by the Desert Knowledge CRC. The study includes projects on dispersal, impact and management of Buffel grass and also its impact on biodiversity. Completion of all elements of the project was delayed due to the drought and it is now anticipated to be completed in late 2006.

Drought

Following a record dry period from May 2004 to May 2005, 52 pastoral properties from central Australia and the Barkly applied to be declared in the first year of drought under the Northern Territory Drought Assistance arrangements.

Applicants provide rainfall data for the last 12 months, stock numbers and movements for the past five years and a summary of their drought management strategies. Assessment included a property inspection and considered rainfall records in comparison to long term records, rainfall effectiveness, satellite data on green cover, pasture growth response, stock numbers and turnoff and appropriateness of drought management strategies. Photographic evidence was collected. Inspection reports undertaken jointly by government agencies indicated that the properties were in varying states of drought readiness. Many cattle had been removed already, equating to at least double the usual turn-off from the 33 central Australian properties and early turn-off, at lower than usual weights from the 19 more northern properties.

All 52 properties were declared in drought.

Effective rainfall in central Australia in July 2005 produced winter herbage resulting in much improved condition of cattle. The Barkly District did not receive winter rain. Effective summer rainfall is needed to overcome drought conditions.

Erosion on Roads, Fences and other Infrastructure

Erosion on roads, tracks and fencelines continues to be a significant soil management issue on pastoral leases throughout the Northern Territory. Officers of the Pastoral Land Management Branch, Department of Infrastructure, Planning and Environment, adopt a co-operative approach to assist station managers with appropriate soil conservation earthwork design and construction. Voluntary management plans have been prepared by Pastoral Lessees and successfully implemented on a number of properties to address issues arising from the poor siting of infrastructure, and/or inappropriate maintenance techniques.

Feral Animal Control Program – VRD Pastoral District

Negotiations with landholders regarding the options for removal of animals in order to fulfil notice requirements have been largely successful with all properties in the control area taking part in the program.

A re-issue of notices under section 49 of the *Territory Parks and Wildlife Conservation Act*, and section 73 of the *Pastoral Land Act* was undertaken in October 2004. The notice period was amended to extend through to December 2005 and will take into account animals removed to date and recruitment figures. The reason for the extended notice period is to ensure that notices cover the period where most removal operations are undertaken. It will also be in line with the government reporting period.

A significant off-take has been achieved primarily through aerial removal operations but including ground shooting and some pet meat operations.

Notices are due to expire on the 31 December 2005 together with the Indigenous Land Council Services and Funding Agreement that provides helicopter and ammunition reimbursement for control undertaken on Aboriginal Land Trusts. It is expected notices and agreements will be renewed.

Feral Camels in Central Australia

The Department of Infrastructure, Planning and Environment (now Natural Resources, Environment and the Arts) hosted a national workshop focussing on the management of feral camels in Alice Springs in April 2005. Around 40 delegates representing the camel industry, the meat and livestock industries, government land management agencies, land managers and non-government conservation groups attended. The main outcome from the workshop was recognition of the need for a national action plan to deal with the feral camel problem and identification of the key elements which needed to be included in this plan.

Weeds

Weeds threaten the sustainability of rural primary industries in the Northern Territory through increased costs, reduced efficiency and limitations on marketing. They also threaten water resources, freshwater fishing, and conservation of the natural environment, recreation, tourism and traditional hunting.

The Weed Management Branch, Department of Infrastructure, Planning & Environment (now Natural Resources, Environment and the Arts) assists landholders to manage weeds by providing technical advice, assisting with weed management plans, carrying out surveys and controlling key infestations.

Major weed issues for each pastoral district during 2004/2005 are summarised in Table 2 below:

PASTORAL DISTRICT	Main weed issues & control programs
DARWIN	<ul style="list-style-type: none"> Mimosa (<i>Mimosa pigra</i>) Mimosa continues to be the major weed impacting on the pastoral industry in the Darwin Pastoral District, with approximately \$1.4 million being spent annually in control programs. <i>Senna obtusifolia</i>, <i>Hyptis suaveolens</i> and <i>Sida acuta</i>. These species are abundant in areas impacted upon by intense fire regimes, feral animal damage and heavy grazing regimes.
KATHERINE	<ul style="list-style-type: none"> Bellyache bush (<i>Jatropha gossypifolia</i>) Parkinsonia (<i>Parkinsonia aculeata</i>) Mimosa (<i>Mimosa pigra</i>) Prickly Acacia (<i>Acacia nilotica</i>)
ROPER	<ul style="list-style-type: none"> Parkinsonia (<i>Parkinsonia aculeata</i>) Mimosa (<i>Mimosa pigra</i>) Prickly Acacia (<i>Acacia nilotica</i>) Lantana
VRD	<ul style="list-style-type: none"> Mimosa (<i>Mimosa pigra</i>) Prickly Acacia (<i>Acacia nilotica</i>) Lions tail, devils claw, barleria and sickle pod
STURT PLATEAU	<ul style="list-style-type: none"> Bellyache bush (<i>Jatropha gossypifolia</i>)
GULF	<ul style="list-style-type: none"> Hyptis (<i>Hyptis suaveolens</i>) Devil's claw (<i>Martynia annua</i>) Bellyache bush (<i>Jatropha gossypifolia</i>) Chinee apple (<i>Ziziphus mauritiana</i>) Parkinsonia (<i>Parkinsonia aculeata</i>) Prickly Acacia (<i>Acacia nilotica</i>) Parthenium weed (<i>Parthenium hysterophorus</i>) follow up surveys continue, if no new plants are found, 2006 will gain an Eradicated Status for Parthenium in the Gulf

PASTORAL DISTRICT	Main weed issues & control programs
BARKLY	<ul style="list-style-type: none"> • Prickly Acacia (<i>Acacia nilotica</i>) • Mesquite (<i>Prosopis spp.</i>) • Parkinsonia (<i>Parkinsonia aculeata</i>) • Rubber Bush (<i>Calotropis procera</i>)
TENNANT CREEK	<ul style="list-style-type: none"> • Parkinsonia (<i>Parkinsonia aculeata</i>) • Rubber Bush (<i>Calotropis procera</i>)
PLENTY	<ul style="list-style-type: none"> • Parkinsonia (<i>Parkinsonia aculeata</i>) • Rubber Bush (<i>Calotropis procera</i>)
NORTHERN ALICE SPRINGS	<ul style="list-style-type: none"> • Parkinsonia (<i>Parkinsonia aculeata</i>) • Rubber Bush (<i>Calotropis procera</i>)
SOUTHERN ALICE SPRINGS	<ul style="list-style-type: none"> • Athel Pine (<i>Tamarix aphylla</i>) • <i>Neurada procumbens</i>

Table 2: Weed Issues in NT Pastoral Districts 2004/2005

REPORT ON SEASONAL CONDITIONS FOR 2004/2005

In contrast to the 2003/2004 wet season which saw extremely high rainfall for much of the Northern Territory, the 2004/2005 wet was generally average to slightly below average in the northern half of the NT and in the bottom 10 percent of historical records in the southern NT (Figure 20). The southern NT received average to above average rainfall in the period April to September 2005.

DARWIN PASTORAL DISTRICT

Darwin District seasonal conditions were below average during 2004/2005. Rainfall was generally 20% below average for the majority of the district, with specific localities in the Darwin District and East of Darwin approximately 30% below average.

In conjunction with the below average rainfall a slight increase in temperatures within the range of 1.0 – 1.5 degrees above average were experienced in the district during the past year.

The below average rainfall and slightly hotter temperatures has not generally affected land condition within the district, with the majority of landholders managing properties in accordance with the seasonal conditions experienced.

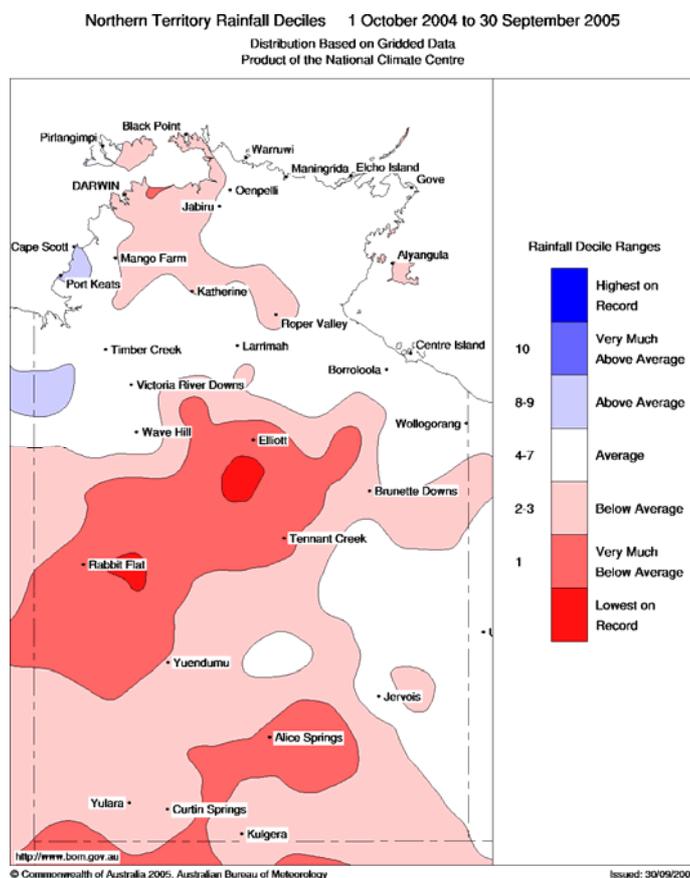


Figure 20: NT Rainfall Deciles 1 October 2004 – 30 September 2005 (Source Australian Bureau of Meteorology)

KATHERINE PASTORAL DISTRICT

The Katherine Pastoral District received well below the regional average of 866mm for the 2004/2005 wet season. The rain was characterised by monthly totals of over 200mm per month for December and January. February through to March was dryer than normal with a combined total of 300 mm received.

The pattern of the wet season was relatively short with heavy falls in December-January and little following rain, resulted in early curing of the pasture and high fire risk by late March. Fires commenced in April/May and extensive areas throughout the district were burnt by July.

ROPER PASTORAL DISTRICT

Rainfall in the Roper Pastoral District was below the regional average of 809 mm. Recording stations at Mataranka Homestead, Roper Bar and Maranboy received 574, 549 and 706 mm of rain respectively. The wettest months were December/January with moderate follow up rain through to March.

VRD PASTORAL DISTRICT

Rainfall in the VRD Pastoral District was well below the regional average of 612mm. Monthly totals from November through to January were less than 100 mm. Tropical Cyclone Ingrid provided some relief for the Western VRD in mid March however did not provide any relief for the Eastern VRD. This resulted in moderate pasture growth over a restricted growing period with the pasture drying off and declining in soil moisture by late March.

The Southern area of the VRD on the Western Australian border received well below average rainfall. This produced a poor wet season response and well below average pasture production.

STURT PLATEAU PASTORAL DISTRICT

Rainfall in the Sturt Plateau Pastoral District was generally below the regional average of 684mm. Vermelha in the north-east of the district received 799 mm which is above the regional average rainfall. Recording stations at Hayfield-Shenandoah and Daly Waters in the south of the district received 375 and 489 mm of rain, well below the average. Avago in the west the region received 419 mm of rain, again below the regional average. December and January were the wettest months with patchy falls through to March.

The pattern of pasture growth across the district was fairly consistent with the rainfall, being slightly above average in the North East declining to average or below to the South West. Hayfield-Shenandoah reported early build up storms which caused numerous fires. The late rain did little to promote pasture growth on the burnt areas.

GULF PASTORAL DISTRICT

Rainfall for the Gulf Pastoral District was below the regional average of 712mm. Below to well below average rainfall was received across the District with Mallapunyah Springs and Kiana applying for drought relief assistance. Nutwood Downs had monthly totals of between 20 to 200 mm from October through to March with a total of 535mm falling which was below the average of 712mm.

The early end to the wet season, late dry season wildfires and fires as the result of early dry storms resulted in a shorter growing season and pasture drying out by the end of March.

BARKLY PASTORAL DISTRICT

Rainfall recordings across the Barkly Pastoral District were well below the regional average of 450mm. Anthony's Lagoon was one of the wetter properties with just over 100mm recorded for December. The Newcastle Waters aggregation (Newcastle Waters, Powell Creek and Tandyidgee Stations) applied for drought relief and was inspected in mid June. The properties received well below average rainfall with 225mm received well down on the long term average of 490mm.

TENNANT CREEK PASTORAL DISTRICT

The Tennant Creek Pastoral District had a well-below average summer rainfall period, with a late start in November, and both December 2004 and February 2005 being particularly deficient. Total summer rainfall was less than half the average. Unusual rainfall in June refreshed some perennial grasses, but few species in this district are adapted to cool season rainfall.

PLENTY PASTORAL DISTRICT

The Plenty Pastoral District had well-below seasonal conditions in 2004/2005. Summer rainfall was characterised by heavy but patchy thunderstorms from November 2004 through to January 2005. A single event in January was associated with a north-west cloud band, and amounted to one storm with considerable run-off reducing effectiveness. Hot dry conditions following this rainfall stunted annual growth, but highlighted the value of perennial grasses, which were able to utilise the rain more effectively. Rainfall in June freshened perennial grasses, but cool season rainfall is not as useful in this district as further south.

NORTHERN ALICE SPRINGS PASTORAL DISTRICT

The Northern Alice Springs Pastoral District had well-below average rainfall in the 2004/2005 summer period. Most stations received about 50-70mm, instead of the 250-300mm expected. The peak in January was associated with a very narrow north-west cloud band that fell on some properties in the north-east of the District. This rain fell on one day only, and was followed by hot dry conditions for the rest of the summer. Effective cool season rainfall fell in June and July 2005.

SOUTHERN ALICE SPRINGS PASTORAL DISTRICT

The Southern Alice Springs Pastoral District had no effective summer rainfall in 2004/2005. Small falls were too infrequent and intervening periods too hot and dry for any pasture growth whatsoever. Effective cool season rain fell in June and July 2005 providing an excellent herbage season. This is a reprieve only, as pastoral productivity is based on summer active grasses.

VALUE OF THE CATTLE INDUSTRY TO THE NORTHERN TERRITORY

The pastoral estate of the Northern Territory covers around 619,000 km² comprising nearly 46% of the area of the Northern Territory under 218 pastoral leases. Pastoral holdings vary from small stations of 198 km² to the Territory's largest station, which runs cattle over 12,212 km². The area of land devoted to pastoral production has decreased over time due to other demands for the land. However, the trend in pastoral production, measured by the number of cattle turned off annually, is, in general, increasing, an indication of sustainability of pastoral land in the Northern Territory.

The estimated gross value of production from the NT cattle industry in 2004 was \$253 million, representing approximately 51% of the total value of production of the rural and fisheries industries in the Territory. In addition, the pastoral activity provided significant flow-on benefits to other industries, particularly transport and meat processing.

A total of 500,991 head of cattle were turned off from Territory pastoral properties to abattoirs, interstate and overseas markets in 2004. Of the total NT cattle turned off, 53.44% went interstate, 46.5% were exported overseas live, while only 0.1% were slaughtered at Territory abattoirs.

APPLICATIONS CONSIDERED BY THE BOARD DURING 2004/2005

APPLICATIONS TO CLEAR PASTORAL LAND 2004/2005

(i) Clearing Applications approved 2004/2005 – Purpose and Areas

Purpose of clearing	Number of proposals	Area approved ¹
Improved pastures/hay production	1	100 ha
TOTALS:	1	100 ha

¹Approval of the Board is limited to a designated area. Proposals may involve selective clearing within that area, for example, removal of a particular species only, strip clearing and retention of buffer zones.

Table 3: Purpose and areas of pastoral land clearing approved 2004/2005

(ii) Applications to clear Pastoral Land 2004/2005

Applications carried over from 2003/2004	1
Total number of clearing applications lodged 2004/2005	5
Applications lapsed/withdrawn	0
Applications approved	1
Applications carried over	5

Table 4: Clearing applications determined 2004/2005

APPLICATIONS FOR NON PASTORAL USE 2004/2005

(i) Applications for non pastoral use 2004/2005

Applications carried over from 2003/2004	0
Applications lodged during 2004/2005	9
Applications approved	6
Applications carried over	3

Table 5: Applications for non pastoral use determined 2004/2005

(ii) Purpose of non pastoral use approvals 2004/2005

Non Pastoral Use Activity	No. of Approvals
Tourism	3
Store	1
Horticulture	1
Mining rehabilitation	1

Table 6: Purpose of non pastoral use approvals 2004/2005

APPLICATIONS TO SUBDIVIDE A PASTORAL LEASE INTO TWO OR MORE PASTORAL LEASES 2004/2005

Applications carried over from 2003/2004	1
Applications referred 2004/2005	2
Applications considered by the Board with recommendation to the Minister	1
Applications carried over	2

Table 7: Subdivision applications considered 2004/2005

APPLICATIONS TO SURRENDER TERM PASTORAL LEASES IN EXCHANGE FOR PERPETUAL PASTORAL LEASES 2004/2005

Applications carried over from 2003/2004	2
Applications referred 2004/2005	3
Applications considered by the Board with recommendation to the Minister	4
Applications carried over	1

Table 8: Applications to convert to perpetual tenure considered 2004/2005

REPORT ON LAND CLEARING PREVIOUSLY APPROVED

It is a requirement of the *Pastoral Land Act* that a lessee shall not undertake clearing on pastoral land without the written consent of the Pastoral Land Board. The Pastoral Land Board has included details of the number of clearing applications and purpose of land clearing approvals in each of its Annual Reports to the Minister since 1992/93. Since 1999/2000, the Board has also reported on progress with previous land clearing approvals. Table 9 below outlines whether clearing has proceeded and current status for determinations of the Board since the last report.

YEAR	CLEARING PURPOSE	AREA	COMMENTS
2001/2002	Pasture Improvement & hay production	500 ha	Clearing not yet commenced.
2001/2002	Removal of non preferred species.	1440 ha	Majority of clearing completed.
2002/2003	Improved pastures for hay production	50 ha	Clearing completed.
2002/2003	Improved pastures for hay production & grazing	1000 ha	Clearing commenced. Site preparation proceeding for planting.
2003/2004	Improved pastures	4000 ha	Clearing not yet commenced.
2003/2004	Improved pastures	3627 ha	Clearing of laneways and holding paddocks commenced.
2003/2004	Improved pastures	373 ha	Clearing not yet commenced.
2003/2004	Hay production	10 ha	Clearing commenced.

Table 9: Report on land clearing previously approved