PASTORAL LAND BOARD

2010/11 Annual Report

Contents

Chairman's Foreword

The Annual Report of the Pastoral Land Board for 2010/11 covers the period 1 October 2010 to 30 September 2011 in line with a seasonal reporting period approved by the Minister in May 2005.

The Northern Territory pastoral estate is about 606,000 km^2 in size. The gross value of production for the NT cattle industry was estimated at $254 million in 2009/10. This represents approximately 50.3% of the total value of the Territory's rural industries and fisheries production.

One of the important functions of the Pastoral Land Board is to monitor the condition and use of pastoral land to facilitate its sustainable use and the economic viability of the industry in accordance with the objects of the *Pastoral Land Act*. The Board is committed to the maintenance and, where possible, the improvement of the condition of the Territory's pastoral land.

For several years, the Board has been concerned that the momentum of pastoral land monitoring has slowed. If the current level of monitoring is not increased it will take more than 10 years for all pastoral leases in the Northern Territory to be visited and this is insufficient to provide an assessment of land conditions throughout the pastoral estate.

A greater allocation of resources to pastoral land monitoring is necessary if the trend described below is to be halted or reversed. At the time of writing (June 2013) the Northern Territory Government has announced an intention to revitalise the monitoring program and to allocate the resources necessary for this to happen.

The table below summarises outputs for the Tier 1 monitoring program over the past seven years.

Reporting Year 1 Oct – 30 Sept	Total No. of properties monitored	Total No. of monitoring sites re-assessed	New monitoring sites established
2004/05	86	774	37
2005/06	52	498	4
2006/07	74	673	20
2007/08	56	460	34
2008/09	22	254	-
2009/10	18	121	-
2010/11	25	106	-

Ground based monitoring data provided to the Board for 2010/11 is limited to 25 properties in five pastoral districts (one Darwin property, 11 Roper properties, 10 Sturt Plateau properties, two Gulf properties and one Southern Alice Springs property). The monitoring of the Darwin district property was to ensure the recovery of a relatively small area of overgrazed land. This was successfully achieved. The monitoring of the Southern Alice Springs property was intended to address land degradation issues on the property due to erosion and loss of ground cover. A rehabilitation plan has been put in place and the property is showing signs of good recovery. The Board will continue to monitor this property. The remainder of the assessed properties were generally in fair or good condition.

Due to the limited Tier 1 monitoring the Board is unable to provide an objective assessment of land condition across all of the pastoral districts of the Northern Territory. Reports for the remaining districts are limited to rainfall records and comments on pasture growth as determined by AussieGRASS models. According to these models pasture biomass in these districts were generally average to above average as a result of good rains. The Darwin and Katherine districts showed average to below average biomass as the result of increased fire activity.

Anthony Young
Chairman
Pastoral Land Board

Membership of the Board

Chairman

Mr Anthony David Young	3 year term – expiring 25 June 2013

Members

Mrs Colleen Marie Costello	3 year term – expiring 25 June 2011
Mr Steven Craig	3 year term – expiring 25 June 2011
Mr Michael Francis Quirk	3 year term – expiring 25 June 2013
Mr Thomas George Henry Stockwell	3 year term – expiring 25 June 2011

Executive Officer

Mrs Judy Bartolo

Functions of the 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 2010/11

Two meetings of the Pastoral Land Board were held during 2010/11. In addition to these meetings, seven matters were determined out of session and one matter was considered by a sub-committee of the Board with a relevant property inspection.

85th Meeting held in Darwin 18 - 19 April 2011
The Board gave further consideration of an application to convert a term lease to perpetual tenure and determined its recommendation to the Minister. It gave preliminary consideration to an application to subdivide a pastoral lease and further application to convert a term lease to a perpetual tenure. Other matters considered included the consultation of the *Pastoral Land Act* and *Native Vegetation Management Bill* and a presentation of the summary on the outcome of the consultation held on the *Pastoral Land Act* and *Native Vegetation Management Bill*.

86th Meeting: teleconference held 3 June 2011
The Board gave further consideration to its submission on the proposed amendments to the *Pastoral Land Act* and exposure draft of the *Native Vegetation Management Bill*.

Policy Issues and New Initiatives

Review of the *Pastoral Land Act*

The Board received a presentation from the Department of Natural Resources, Environment, the Arts and Sport on the consultation draft of the *Pastoral Land Act and Native Vegetation Management Bill.* An out of session minute was approved for the lodgement of the Pastoral Land Board written submission.

Pastoral Land Monitoring Programs

The Pastoral Land Board, together with the pastoral industry and the Northern Territory Government, are working to maintain and improve the condition of the Territory's pastoral land. The area of land, held as pastoral leases comprises around 45% of the Territory. Maintaining this natural resource in good condition is essential for a profitable and sustainable pastoral industry.

Monitoring and reporting on the general 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, NRETAS operates a two-tiered pastoral land monitoring program. The major roles of the monitoring program are to monitor the effect management regimes have upon the land and provide reports on the land condition of pastoral land; and to gain an understanding of landscape processes.

The monitoring program consists of two levels – Tier 1 and Tier 2.

Tier 1 is photo point monitoring system that uses visual estimates to assess land condition and changes in pasture levels over time. These sites were set up in consultation with land managers who are encouraged to conduct their own photo monitoring of the sites.

The Tier 2 approach is an integrated monitoring system of satellite imagery and ground based measurements from permanent sites. It provides for large spatial scale monitoring and information of landscape change.

Currently a small percentage of pastoral land is monitored and updated annually using satellite imagery. With rapid advancements in technology, data availability and accessibility, methods, implementation and reporting are being reviewed to better produce and utilise information products derived from this data.

The Department has signed to be part of a collaborative national project using satellite imagery coupled with ground based measurements to develop a national ground cover product. The project aims to establish across the rangelands of Australia, a network of ground sites (in a range of landtypes with varying vegetation types and cover levels) to validate MODIS satellite imagery derived ground cover monitoring products. MODIS satellite imagery based products provides large scale (pastoral district) land cover change data. The national based product will provide for consistent and comparable reporting across the nation as a whole. Collaboration with the Commonwealth and States will provide the NT access to satellite based imagery products, ground sites across all rangelands and experience and skill development in the use and interpretation of satellite based products.

The monitoring programs are further informed from data and information provided from established models and external agencies. AussieGRASS is a spatial modelling framework used by the Department of Resources to estimate pasture and ground cover levels. AussieGRASS estimates various pasture characteristics (such as growth and total standing dry matter) over a given time period and compares it with historical records. It uses rainfall, climate, soil and pasture type information to estimate average growth over 5km x 5km square grids across Australia. Total Standing Dry Matter is estimated from pasture levels carried over from previous seasons (less grazing, fire and detachment) and the current season's growth. These models are used to inform land management and stocking strategies.

Establishment and Reassessment of Tier 1 Photo-Point Monitoring Sites

During 2010/11 a total of 106 monitoring sites were reassessed on 25 properties in the Darwin, Katherine and Sturt Plateau Pastoral Districts (refer Table 1).

Pastoral District	Total No. of Sites	No. of Properties [with Tier 1 sites]	Average Sites / Property	New Sites Established 2010/11	Reassessed 2010/2011	
					Sites	Properties
Darwin 21 Pastoral Leases	**144**	**21**	**7**	**0**	**3**	**1**
Katherine 7 Pastoral Leases	**49**	**7**	**7**	**0**	**0**	**0**
Roper 11 Pastoral Leases	**51**	**10**	**5**	**0**	**39**	**11**
VRD 25 Pastoral Leases	**338**	**25**	**14**	**0**	**0**	**0**
Sturt Plateau 27 Pastoral Leases	**180**	**26**	**7**	**0**	**50**	**10**
Gulf 18 Pastoral Leases	**112**	**17**	**7**	**0**	**5**	**2**
Barkly 31 Pastoral Leases	**447**	**31**	**14**	**0**	**0**	**0**
Tennant Creek 8 Pastoral Leases	**80**	**8**	**10**	**0**	**0**	**0**
Plenty 14 Pastoral Leases	**157**	**14**	**11**	**0**	**0**	**0**
Northern Alice Springs 30 Pastoral Leases	**340**	**30**	**11**	**0**	**0**	**0**
Southern Alice Springs 26 Pastoral Leases	**278**	**24**	**12**	**0**	**9**	**1**
Other Tenure **All Pastoral Districts** Aboriginal Land and Crown Leases	**115**	**15**	**8**	**0**	**0**	**0**
Totals	**2291**	**228**	**10**	**0**	**106**	**25**

Table 1: Tier 1 Photo-point Monitoring Sites established and reassessed 2010/11 (1 October 2010 – 30 September 2011)

Pastoral District Reports 2010/11

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.

Criteria used to assess Pasture Condition

Three classes are used to assess pasture condition (good, fair and poor). The classes are based on indicators of pasture condition such as the abundance of perennial plants known to increase or decrease following grazing and ground surface indicators such as the exposure of bare soil to wind and water and its subsequent erosion. These indicators have largely been determined from historical information, local knowledge, cross fence comparisons and stock grazing gradients out from water. The further from water, the less intense the stock grazing pressure and the higher the condition class rating tends to be.

The condition classes can be described as follows:

Good: There is close to maximum diversity and cover of annual and perennial plant species possible for that pasture type with perennial species of various ages. There is no active erosion other than natural features and processes. Plant and litter cover protects the soil from wind and water in all seasons except following fire.

Pastures in good condition are stable and are at, or close to, their productive potential. Pastoral managers should be aiming for good pasture condition, which necessitates careful management practices that maintain or improve pasture condition.

Fair: Reduced cover and regeneration of palatable perennial species and including some establishment of less preferred unpalatable plants. Productivity remains high in good seasons but is markedly reduced in dry seasons. Lower plant cover increases the susceptibility of soil to erosion in most seasons and there is evidence of moderate erosion on susceptible land types.

Pastures in fair condition are productive, but below their productive potential. They are sometimes actively eroding and can rapidly deteriorate to poor condition. Maintaining pastures in fair condition is not a satisfactory status quo, as long term damage to their productive capacity will result. They should be managed with the aim of improving condition and ultimately achieving good condition status.

Poor: The palatable component of the pasture is depleted and the pasture is dominated by annual, ephemeral and unpalatable perennial species. There is no, or markedly reduced, regeneration of desirable perennial plants, productivity is impaired and the seasonal response is poor. Soils are unstable and susceptible to erosion in all seasons and past erosion leaves the site susceptible to further soil movement if grazed.

Pastures in poor condition have severely reduced productivity which is most noticeable during dry

periods. They require a very long period of spelling to improve condition or mechanical intervention such as erosion control earthworks or reseeding.

Darwin Pastoral District Report 2010/11

Rainfall Darwin District	
30 year district average 1746 mm	2010/11 district annual average 2922 mm
30 year district average summer (October to April) 1670 mm	2010/11 district average summer (October to April) 2918 mm
30 year district average winter (May to September) 45 mm	2010/11 district average winter (May to September) 3.8 mm

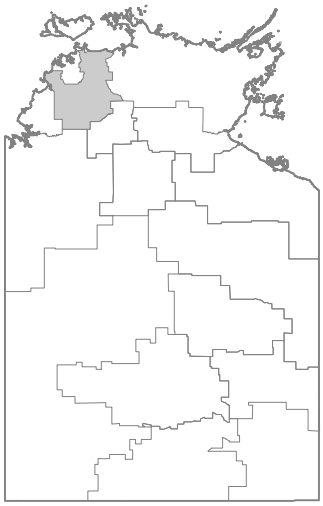

Figure 1: Location of Darwin Pastoral District

Seasonal Conditions

The Darwin Pastoral District experienced above average rainfall for the 2010/11 reporting season. This was attributed to a very active wet season and activity associated with Cyclone Carlos in February 2011.

Pasture growth for the District was average to above average from October 2010 to September 2011, as determined by AussieGRASS models. September 2011 standing biomass levels were average to below average as a result of increased fire activity across the District.

Monitoring

Rangeland monitoring was undertaken at one station within the District. Tier 1 data was collected from three sites within a voluntary management area on the lease. The Board had requested the lessee destock the paddock to allow it to recover from the impact of heavy grazing pressure the previous year. Inspection of the paddock in June 2011, after destocking and spelling, highlighted improved land condition and ground cover.

Perennial pasture species comprised approximately 90% of total pasture species composition, and there had been a significant increase in diversity of pasture species present. Data collection at one site confirmed the presence of 14 different perennial grass species, plus Annual Sorghum. The outcome was achieved by compliance with the conditions of the Board's endorsed voluntary management plan. The plan required a wet season destock and provision of additional watering points and fencing.

Katherine Pastoral District Report 2010/11

Rainfall Katherine District	
30 year district average 998 mm	2010/11 district annual average 1264 mm
30 year district average summer (October to April) 960 mm	2010/11 district average summer (October to April) 1264 mm
30 year district average winter (May to September) 40 mm	2010/11 district average winter (May to September) 0 mm

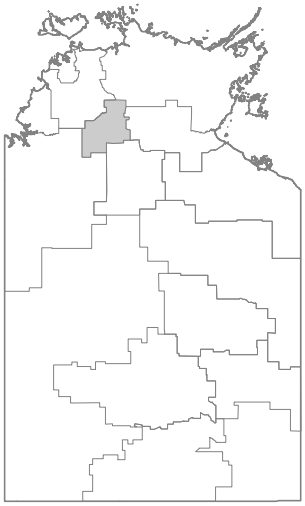

Figure 2: Location of Katherine Pastoral District

Seasonal Conditions

The Katherine Pastoral District experienced above average rainfall for 2010/11, with some rainfall totals amongst the highest on record for the District.

Pasture growth for the District was average to above average from October 2010 to September 2011, as determined by AussieGRASS models. The standing pasture biomass for May 2011 for the District was average to extremely low when compared to historical records. The Katherine Pastoral District also experienced increased fire activity resulting below average pasture biomass for September 2011.

Monitoring

No properties were assessed during the 2010/2011 reporting period.

Roper Pastoral District Report 2010/11

Rainfall Roper District	
30 year district average 598 mm	2010/11 district annual average 1405 mm
30 year district average summer (October to April) 587 mm	2010/11 district average summer (October to April) 1404 mm
30 year district average winter (May to September) 11 mm	2010/11 district average winter (May to September) 1 mm

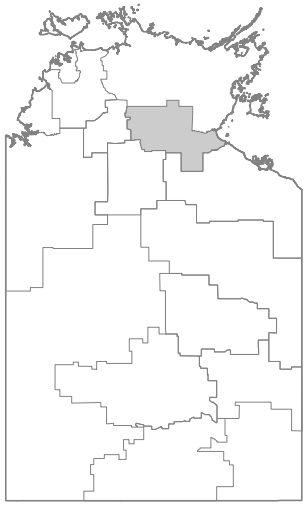

Figure 3: Location of Roper Pastoral District

Seasonal Conditions

Rainfall averages for the Roper Pastoral District are significantly above the 30 year district average due to weather associated with Cyclone Yasi weather patterns.

As determined by AussieGRASS models, pasture growth for the reporting period October 2010 to September 2011, was average to above average.

Monitoring

During the 2010/11 reporting period, 11 Roper Pastoral District properties were assessed. The properties have a total of 57 monitoring sites with 39 being assessed in 2011. Sites were not assessed due to access issues, site not located and changes in infrastructure rendering the site ineffective.

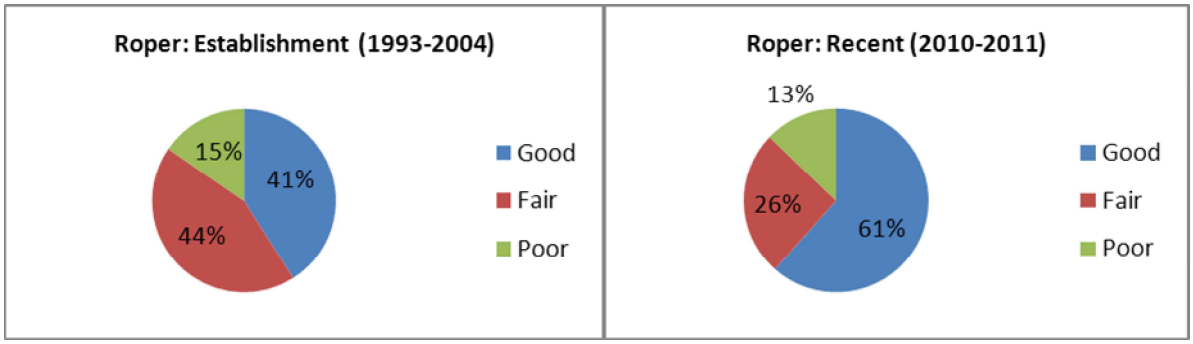

Table 2 – Roper Pastoral District condition assessed at establishment in 1993-2004 derived from 39 sites compared to condition assessed at the most recent visit 2010/11 derived from the same 39 sites.

The comparison of site condition between establishment date 1993 – 2004 with that of the recent 2010/11 re-assessments highlights improved land condition with the number of good sites increasing from 41% to 61%.

The majority of the properties during the 2010/11 reporting period were assessed as having stable levels of ground vegetative cover, with average to above average levels. Favourable seasonal conditions of increased rainfall contributed to the consistent high levels of biomass and ground cover.

Since the previous visit to the Roper District, development and infrastructure improvements are continuing throughout the District – new waters, fencing and track to aid property management and utilisation. It was noted that at some of the properties assessed, grader grass has increased and was spreading through areas of erosion and disturbance. Observations from officers across the District confirm high levels of perennial cover and biomass and that the District has a good pasture condition state.

VRD Pastoral District Report 2010/11

Rainfall VRD District	
30 year district average 635 mm	2010/11 district annual average 1192 mm
30 year district average summer (October to April) 615 mm	2010/11 district average summer (October to April) 1192 mm
30 year district average winter (May to September) 15 mm	2010/11 district average winter (May to September) 0 mm

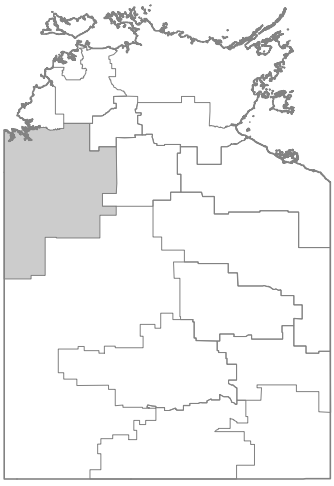

Figure 4: Location of VRD Pastoral District

Seasonal Conditions

The VRD Pastoral District experienced above average rainfall for the 2010/11 reporting period, associated with an active wet season and numerous low activities across the District.

Pasture growth for the reporting period October 2010 to September 2011 was above average to extremely high as determined by AussieGRASS models.

The standing pasture biomass for May 2011 for the District was average to extremely high, with some areas having levels greater than 3000kg/ha. High levels of standing biomass continued through to September 2011 with pasture biomass levels remaining average to extremely high.

Monitoring

No properties in the VRD Pastoral District were assessed under the monitoring program during 2010/11.

Sturt Plateau Pastoral District Report 2010/11

Rainfall Sturt Plateau District	
30 year district average 817 mm	2010/11 district annual average 1132 mm
30 year district average summer (October to April) 787 mm	2010/11 district average summer (October to April) 1132 mm
30 year district average winter (May to September) 4 mm	2010/11 district average winter (May to September) 0 mm

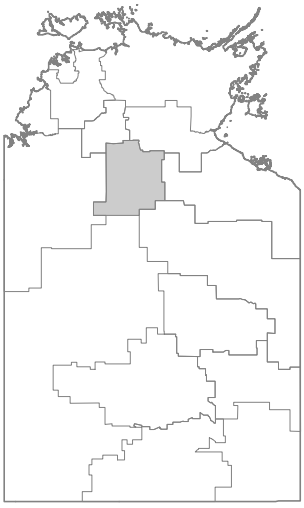

Figure 5: Location of Sturt Plateau Pastoral District

Seasonal Conditions

As with the majority of northern parts of the NT the Sturt Plateau District for the 2010/11 reporting period, received above average rainfall.

Pasture growth for the reporting period October 2010 to September 2011, was average to above average as determined by AussieGRASS models. The standing pasture biomass for May 2011 for the District was average with small areas of the district having above average levels. Standing biomass levels were maintained through the dry season to September, with levels of average to above average.

Monitoring

During the 2010/11 reporting period, 10 Sturt Plateau Pastoral District properties were assessed. The properties have a total of 78 monitoring sites and 50 were assessed in 2011. Sites were not assessed due to access issues at the time of inspection.

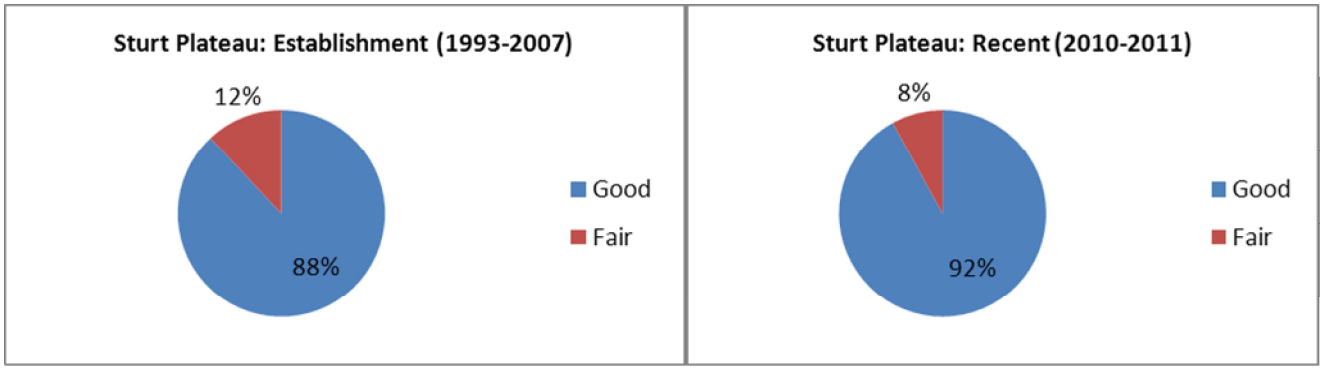

Table 3 – Sturt Plateau Pastoral District condition assessed at establishment in 1993-2007 derived from 50 sites compared to condition assessed at the most recent visit 2010/11 derived from the same 50 sites.

A comparison of site condition between establishment date 1993 – 2007 with that of the recent 2010/11 re-assessments depict only minor changes in land condition between the periods.

Table 3 depicts an improvement in sites as rated as good with 92% of sites in the sample now regarded as in good condition.

The majority of the Sturt Plateau experienced above average rainfall for the reporting period, resulting in above average cover and biomass levels.

Discussions with landholders and managers highlighted the good season and amount of feed available throughout the season. Observations by officers across the properties inspected, confirmed the consistent high levels of ground cover consisted of perennial palatable grasses.

Gulf Pastoral District Report 2010/11

Rainfall Gulf District	
30 year district average 771 mm	2010/11 district annual average 1377 mm
30 year district average summer (October to April) 724 mm	2010/11 district average summer (October to April) 1375 mm
30 year district average winter (May to September) 13 mm	2010/11 district average winter (May to September) 2 mm

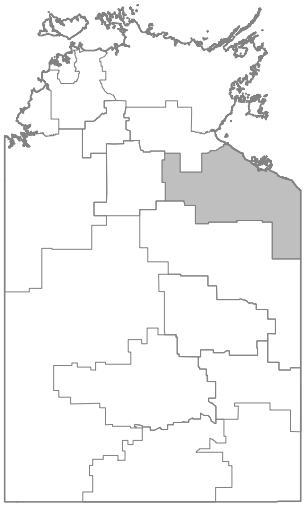

Figure 6: Location of Gulf Pastoral District

Seasonal Conditions

The Gulf Pastoral District experienced above average rainfall for the 2010/11 reporting season. This was attributed to a very active wet season and weather patterns associated with Cyclone Yasi.

Pasture growth for the reporting period October 2010 to September 2011 was above average to extremely high as determined by AussieGRASS models.

Monitoring

During the 2010/11 reporting period, two Gulf Pastoral District properties were assessed. Both properties have a total of five monitoring sites and all five were assessed in 2011.

Properties visited within the reporting period were reported to have high levels of ground cover across the property. High levels of cover comprised of palatable perennial species with low to minimal areas of bare ground. The sites had a mix of perennial and annual grass species which is the basis of good land condition.

The majority of properties within the Gulf District are characterised by minimal infrastructure and property development. Pastoral operations are focussed around a core management area of pastorally significant and manageable lands.

Barkly Pastoral District Report 2010/11

Rainfall Barkly District	
30 year district average 386 mm	2010/11 district annual average 843 mm
30 year district average summer (October to April) 360 mm	2010/11 district average summer (October to April) 833 mm
30 year district average winter (May to September) 25 mm	2010/11 district average winter (May to September) 10 mm

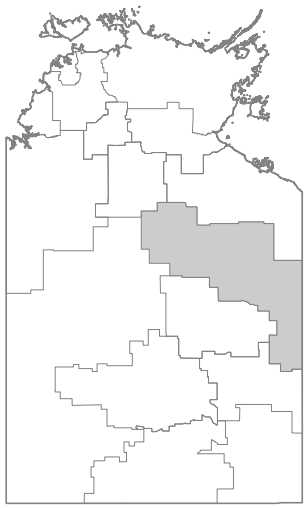

Figure 7: Location of Barkly Pastoral District

Seasonal Conditions

The Barkly Pastoral District received above average summer rainfall for 2010/11 as a result of weather associated with Cyclone Yasi in February 2011.

Pasture growth for the reporting period October 2010 to September 2011 ranged from average through to above average and extremely high as determined by AussieGRASS models.

The standing pasture biomass for May 2011 for the District was average to extremely high, with this trend continuing through to September 2011 with pasture biomass levels maintained at above average levels.

Monitoring

No properties in the Barkly Pastoral District were assessed under the monitoring program during 2010/11.

Tennant Creek Pastoral District Report 2010/11

Rainfall Tennant Creek District	
30 year district average 458 mm	2010/11 district annual average 854 mm
30 year district average summer (October to April) 411 mm	2010/11 district average summer (October to April) 843 mm
30 year district average winter (May to September) 27 mm	2010/11 district average winter (May to September) 10 mm

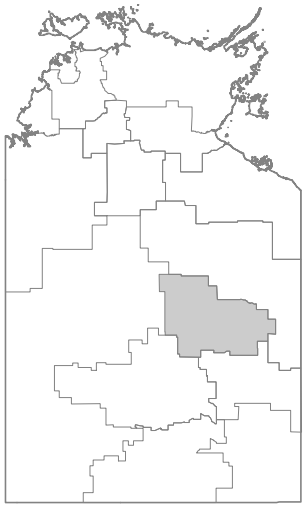

Figure 8: Location of Tennant Creek Pastoral District

Seasonal Conditions

The Tennant Creek Pastoral District experienced above average rainfall for the 2012/11 reporting period. This is due to weather events associated with Cyclone Yasi in February 2011.

Pasture growth for the reporting period October 2010 to September 2011, was above average to extremely high as determined by AussieGRASS models.

The standing pasture biomass for May 2011 for the District was average to extremely high with extended growing seasons experienced. This trend continued through to September 2011 with pasture biomass levels of above average to extremely high.

Monitoring

No properties in the Tennant Creek Pastoral District were assessed under the monitoring program during 2010/11.

Plenty Pastoral District Report 2010/11

Rainfall Plenty District	
30 year district average 301 mm	2010/11 district annual average 518 mm
30 year district average summer (October to April) 240 mm	2010/11 district average summer (October to April) 503 mm
30 year district average winter (May to September) 60 mm	2010/11 district average winter (May to September) 15 mm

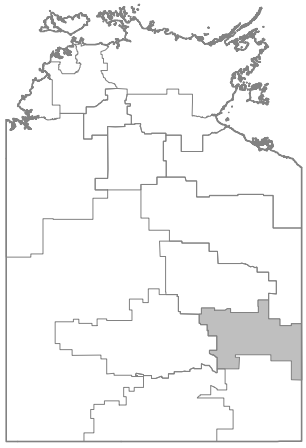

Figure 9: Location of Plenty Pastoral District

Seasonal Conditions

Rainfall for the Plenty Pastoral District for 2010/11 was above average with the majority of the district receiving well above average rainfall.

Pasture growth for the reporting period October 2010 to September 2011 was above average to extremely high as determined by AussieGRASS models. The standing pasture biomass for May 2011 for the District was average to extremely high. High levels of biomass were maintained through to September 2011 with pasture biomass levels of above average to extremely high.

Monitoring

No properties in the Plenty Pastoral District were assessed under the monitoring program during 2010/11.

Northern Alice Springs Pastoral District Report 2010/11

Rainfall Northern Alice Springs District	
30 year district average 313 mm	2010/11 district annual average 447 mm
30 year district average summer (October to April) 257 mm	2010/11 district average summer (October to April) 430 mm
30 year district average winter (May to September) 55 mm	2010/11 district average winter (May to September) 17 mm

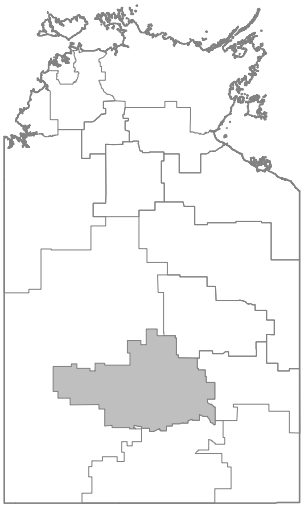

Figure 10: Location of Northern Alice Springs Pastoral District

Seasonal Conditions

During 2010/11 above average rainfall was recorded for most of the Northern Alice Springs Pastoral District, with the majority falling in the summer growing period.

Pasture growth for the reporting period October 2010 to September 2011, was above average to extremely high, as determined by AussieGRASS models. The standing pasture biomass for May 2011 for the District was average to extremely high. This trend continued through to September 2011 with pasture biomass levels of above average to extremely high.

Monitoring

No properties in the Northern Alice Springs Pastoral District were assessed under the monitoring program during 2010/11.

Southern Alice Springs Pastoral District Report 2010/11

Rainfall Southern Alice Springs District	
30 year district average 281 mm	2010/11 district annual average 509 mm
30 year district average summer (October to April) 216 mm	2010/11 district average summer (October to April) 491 mm
30 year district average winter (May to September) 65 mm	2010/11 district average winter (May to September) 17 mm

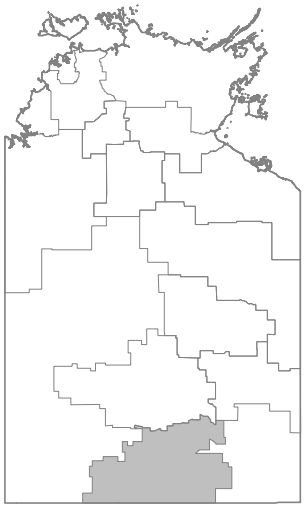

Figure 11: Location of Southern Alice Springs Pastoral District

Seasonal Conditions

During 2010/11 above average rainfall was recorded across the Southern Alice Springs Pastoral District, with majority falling in the summer growing period.

Pasture growth for the reporting period October 2010 to September 2011 was above average to extremely high as determined by AussieGRASS models. The standing pasture biomass for May 2011 for the District was average to extremely high. This trend continued through to September 2011 with pasture biomass levels of above average to extremely high.

Monitoring

During the 2010/11 reporting period one property in the Southern Alice Springs Pastoral District was assessed. The property has a total of 15 sites and nine were assessed in 2011.

Observations from field officers were that the property is able to respond to favourable seasonal conditions with flushes of high levels of growth. The recent extraordinary rainfall has seen an extensive growth of pastures with recovery of ground cover in some areas. Ground cover growth at high levels is consistent across the property.

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 2010/11 action continued in respect of implementation of management plans on a number of properties throughout the Territory.

Drought

There were no applications for consideration of drought status in 2010/11.

Erosion on Roads, Fences and other Infrastructure

Erosion on roads, tracks and fence lines continues to be a significant soil management issue on pastoral leases throughout the Northern Territory. Officers of the Department Natural Resources, Environment, the Arts and Sport, Land Resources Branch, 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 Animals

Large feral vertebrates are a significant problem throughout the Northern Territory as a result of their negative impacts on the agricultural and natural environment. For instance, feral animals have been associated with:

- Declines in the abundance and diversity of native plant communities due to trampling and ingestion of seedlings.
- Increased soil erosion and sedimentation of natural waterways and water bodies as a result of trampling.
- Completion with native species for feed and habitat.
- Consumption of seedlings and plant materials reducing the capacity for the ecosystem to regenerate.
- Increased spread and establishment of weeds.
- Decreased abundances and diversities of aquatic and terrestrial invertebrates.
- Decreased agricultural productivity by reducing the availability of feed for stock.
- Damage to fences and other infrastructure.

Feral Animal Control Program – VRD Pastoral District

Since 1999, the VRD feral animal control program has resulted in the removal of large numbers of feral animals. To date, a total of more than 250,000 feral animals have been removed from the region. A recent survey of 10 properties in the region showed that 7605 feral animals had been removed during 2010/11 of which 91.5% were horses and donkeys. Other species controlled were wild dogs, feral cattle, buffalo, camels and pigs. Due to a lack of focus on the issue momentum on pest animal

management is in danger of stalling at the current time. The lack of activity has been raised by the Board in previous reports.

Counterbalancing this is the good work being done by the private community organisation Conservation Pest Management (CPM), a division of the Sporting Shooters Association. In addition to removing over 5000 feral animals on VRD properties and National Parks during 2011 it is using ground shooting and survey to better plan aerial shooting control options on a number of properties by providing land managers with observations and reports on feral animals as part of its operations.

Each year, the Northern Territory Government sends out letters and notices to landholders in the Victoria River District indicating the numbers of animals that must be removed in accordance with the *Pastoral Land Act and Territory Parks and Wildlife Conservation Act*. If no returns are received from a property for a given year, it becomes much more difficult to accurately assess the numbers of feral animals on a property, or within the region. In order to maintain accurate numbers of feral animals, it is important that landholders provide accurate information relating to any culling or commercial operations that have taken place for that year.

With the tumultuous events that have occurred in the north Australian pastoral industry during the past 12 months relating to the live export suspension industry has faced significant challenges to maintain business as usual activities such as pest animal control. While instability remains an issue, it is hoped that the focus on effective management of pest species will be renewed moving into the future through the development and roll-out of new invasive species programs

Feral Camels in Central Australia

Feral camels occur in SA, WA, QLD and the NT. Aboriginal settlements in Central Australia and pastoral properties fringing the Simpson, Great Sandy and Tanami Deserts are experiencing increasing problems with feral camels as the size of the camel population increases.

The Desert Knowledge Cooperative Research Centre (DK CRC) research report on the management of camel impacts was released in December 2008. On the basis of this report, the DK CRC developed an Expression of Interest under the Caring For Our Country programme to implement a national programme to manage the impacts of feral camels. The funding bid was successful and the Commonwealth has offered $19M over four years to implement the project, with aims to remove upwards of 650,000 camels. Above average rain during the reporting season has allowed the camel populations to disperse this has reduced the impact on localised areas but has made control more difficult and expensive.

Weeds

Weeds threaten the sustainability of rural primary industries in the Northern Territory through increased costs, reducing productivity, reducing efficiency and also potentially posing limitations on market options. Weeds also threaten water resources, freshwater fishing, and conservation of the natural environment, recreation, tourism and traditional land use.

The Weed Management Branch assists landholders to manage weeds by providing technical advice, assisting with weed management plans, carrying out surveys and controlling emergency incursions.

The only serious new incursion during 2010/11 was a rubber vine infestation in the Barkly District. The infestation has been controlled and is subject to ongoing surveillance. Major weed issues for each pastoral district during 2010/11 are summarised in the table below:

Pastoral District	Main weed issues & control programs
Darwin	Mimosa (Mimosa pigra) Hyptis (Hyptis suaveolens) Sida spp Gamba grass (Andropogon gayanus) Mission grass (Pennisetum polystachion) Grader grass (Themeda quadrivalvis) Senna spp Bellyache bush (Jatropha gossypiifolia)
Katherine	Bellyache bush (Jatropha gossypifolia) Parkinsonia (Parkinsonia aculeate) Grader grass (Themeda quadrivalvis)
Roper	Bellyache bush (Jatropha gossypifolia) Lantana (Lantana spp.) Mimosa (Mimosa pigra) Parkinsonia (Parkinsonia aculeata) Grader grass (Themeda quadrivalvis)
VRD	Bellyache bush (Jatropha gossypifolia) Mimosa (Mimosa pigra) Parkinsonia (Parkinsonia aculeata) Prickly Acacia (Acacia nilotica)
Sturt Plateau	Bellyache bush (Jatropha gossypifolia) Infestation at Daly Waters on vacant Crown land
Gulf	Bellyache bush (Jatropha gossypifolia) Prickly Acacia (Acacia nilotica) Bellyache bush (Jatropha gossypiifolia)
Barkly	Mesquite (Prosopis spp.) Parkinsonia (Parkinsonia aculeata) Prickly Acacia (Acacia nilotica) Rubberbush (Calotropis procera) Parthenium weed (Parthenium hysterophorous) Rubber vine (Cryptostegia grandiflra)
Tennant Creek	Bellyache bush (Jatropha gossypifolia) Parkinsonia (Parkinsonia aculeata) Rubber Bush (Calotropis procera) Parthenium weed (Parthenium hysterophorous)
Plenty	Parkinsonia (Parkinsonia aculeata) Rubber Bush (Calotropis procera)
Northern Alice Springs	Athel Pine (Tamarix aphylla) Athel pine is principally located south of Alice Springs along the Finke River. Mature athel pine trees have been controlled North of Alice Springs.
Southern Alice Springs	Athel Pine (Tamarix aphylla)

Top End Region

Mimosa remains the major weed impacting on the pastoral industry reducing production levels and increasing production costs. Major infestations on pastoral land are located in the Mary, Adelaide, Finniss, Reynolds and Daly River catchments and result in subsequent negative effects on production and land condition. Other weeds of concern on pastoral properties include hyptis, Sida spp., gamba grass, perennial mission grass, grader grass and various Senna spp. These species are abundant in areas where disturbance has been caused by intense fires, feral animal damage and heavy grazing regimes.

Major species impacting on the pastoral industry in the Katherine, Gulf and VRD include bellyache bush and parkinsonia with management programs being currently implemented in the Roper, Victoria and Sturt Plateau catchments. Grader grass continues to emerge as a serious threat in the region

particularly west of the Katherine and in the Gulf region. A significant infestation of prickly acacia has also been recorded in the western part of Katherine region recently. Similar to mimosa, the Victoria River District Conservation Association and Weeds Management Branch developed an application for Commonwealth funds in an attempt to increase the scale of current management activities targeting this species (prickly acacia).

Barkly Region

Eradication programs targeting prickly acacia and mesquite continued during 2010/11 involving a number of individual landholders, the BLCA, Weeds Management Branch and Julilakari Corporation. Eradication of these species from the region remains achievable however in the shorter term follow up work will remain a requirement due to seed longevity.

Parkinsonia was a target within the Lake Tarrabool, Lake Sylvester and Lake Woods catchments where the majority of properties have now completed surveys, developed management plans and commenced control. Follow up works targeting this species also continued in the Georgina catchment.

Alice Springs Region

In 2010/11 weed management in the Alice Springs region continued to focus on the management of Athel Pine in the Finke River. During this period control efforts continued to be focussed on the management of re-growth in the 420 km of river frontage that has been previously treated.

Aerial control trials targeting athel pine were undertaken in October 2011 in the lower Finke. These trials are designed to build on work carried out in the US targeting other Tamarix species. It is expected that these sites will be re-assessed in April 2012. Re-inspection of the Athel Pine dieback phenomenon in the lower catchment of the Finke River, late 2011, evaluated the previous inoculation trials and monitored naturally occurring dieback sites. Work in relation to Athel Pine dieback continues.

Value of the Cattle Industry to the Northern Territory

The pastoral estate of the Northern Territory covers around 606,000 km^2 comprising 45% of the area of the Northern Territory under 224 pastoral leases. Pastoral holdings vary from the smallest station of 198 km^2 to the Territory's largest station which runs cattle over 12,212 km^2. The NT cattle population in 2011 was around 2 million head about 7.4% of the Australian total.

The estimate of gross value of production for the NT beef cattle industry was $254 million in 2009/10, a 3.9% decrease compared to the previous year; a 45.02% contribution to the total value of Territory rural industries and fisheries production. The small decrease in value was mainly due to a 15.7% decrease in cattle movements' interstate, offsetting the increased value of live cattle exports of 3.9%.

In 2009-10, an estimated 483,309 head of cattle were turned off from Territory pastoral properties, a decrease of 5.9% on 2008/09. 192,261 (39.78%) cattle were destined for interstate trade, and 291,048 head (60.21%) were exported live overseas. Since the 2001 closure of the Katherine Abattoir, a limited number of cattle (less than 1500 head per annum) have been slaughtered at several small, privately owned and operated abattoirs, supplying meat for local consumption. There are currently four small, domestic abattoirs and no export abattoir operating in the NT.

A cluster of factors affected the live cattle trade during 2010/11: Indonesian policy to be self-sufficient in beef production by 2014; restrictions to the live cattle trade by the Indonesian Government; the temporary trade suspension by the Australian Government related to supply chain animal welfare concerns, and the lower returns in alternative South East Asian markets.

From 1 July to 6 December 2011, around 253 500 cattle for feeder and slaughter purposes were exported from Australia. Of these, around 65 per cent were exported to Indonesia. Among other markets, the largest were Israel (24 830 head), Turkey (16 530) and Egypt (14 600). For 2011/12 as a whole, ABARES forecast Australian exports of live cattle to fall by 31 per cent to 500,000 head. Since the resumption of trade with Indonesia, shipments to that country have averaged around 36,000 head per month, compared with a monthly average of 58,000 head at the height of the trade in 2008/09

Applications considered by the Board during 2010/11

Applications to clear Pastoral Land 2010/11

(i) Clearing applications approved 2010/11 – Purpose and Areas

Purpose of clearing	Number of proposals	Area approved
Nil		
Totals		

Table 4: Purpose and areas of pastoral land clearing approved 2010/11

(ii) Applications to clear Pastoral Land 2010/11

Active Applications carried over from 2009/10	4
Applications carried over from 2009/10 as held in abeyance pending formal assessment under the *Environmental Assessment Act*	0
Total number of clearing applications lodged 2010/11	0
Applications approved	0
Applications lapsed/withdrawn	1
Applications carried over as held in abeyance pending formal assessment under the *Environmental Assessment Act*	
Active Applications carried over	**3**

Table 5: Clearing applications determined 2010/11

(iii) Applications to vary Clearing Permits 2010/11

Purpose of variation	Number of proposals	Approved
To amend the clearing plan and regrowth control methods	2	1

Table 6: Variations to Clearing Permits 2010/11

Applications for Non Pastoral Use 2010/11

(i) Applications for non pastoral use 2010/11

Applications carried over from 2009/10	5
Applications lodged during 2010/11	9
Applications approved	9
Applications lapsed/withdrawn	1
Applications carried over	**3**

Table 7: Applications for non pastoral use determined 2010/11

(ii) Purpose of non pastoral use approvals 2010/11

Non Pastoral Use Activity	**No. of Approvals**
Tourism	6
Horticulture	3
Store	0
Mining rehabilitation	0

Table 8: Purpose of non pastoral use approvals 2010/11

Applications to Subdivide a Pastoral Lease into two or more Pastoral Leases 2010/11

Active Applications carried over from 2009/10	1
Applications carried over from 2009/10 as held in abeyance	0
Applications referred 2010/11	1
Applications considered by the Board with recommendation to the Minister	0
Applications carried over as held in abeyance at lessee's request	1
Active Applications carried over	**2**

Table 9: Subdivision applications considered 2010/11

Applications to surrender Term Pastoral Leases in exchange for Perpetual Pastoral Leases 2010/11

Applications carried over from 2009/10	1
Applications referred 2010/11	1
Applications considered by the Board with recommendation to the Minister	1
Applications carried over	**1**

Table 10: Applications to convert to perpetual tenure considered 2010/11

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 10 below outlines whether clearing has proceeded and current status for individual determinations of the Board since the last report.

Year	Clearing Purpose	Area	Status at 30/9/2010
2007/08	Introduced pasture for grazing	1304 ha	Clearing completed.
2007/08	Introduced pasture for grazing	1613 ha	Clearing completed
2007/08	Introduced pasture for grazing	911 ha	Clearing completed.
2008/09	Irrigated pasture and hay production	82 ha	Clearing commenced.
2009/10	Research trials	80 ha	Clearing completed.

Table 11: Status of land clearing previously approved