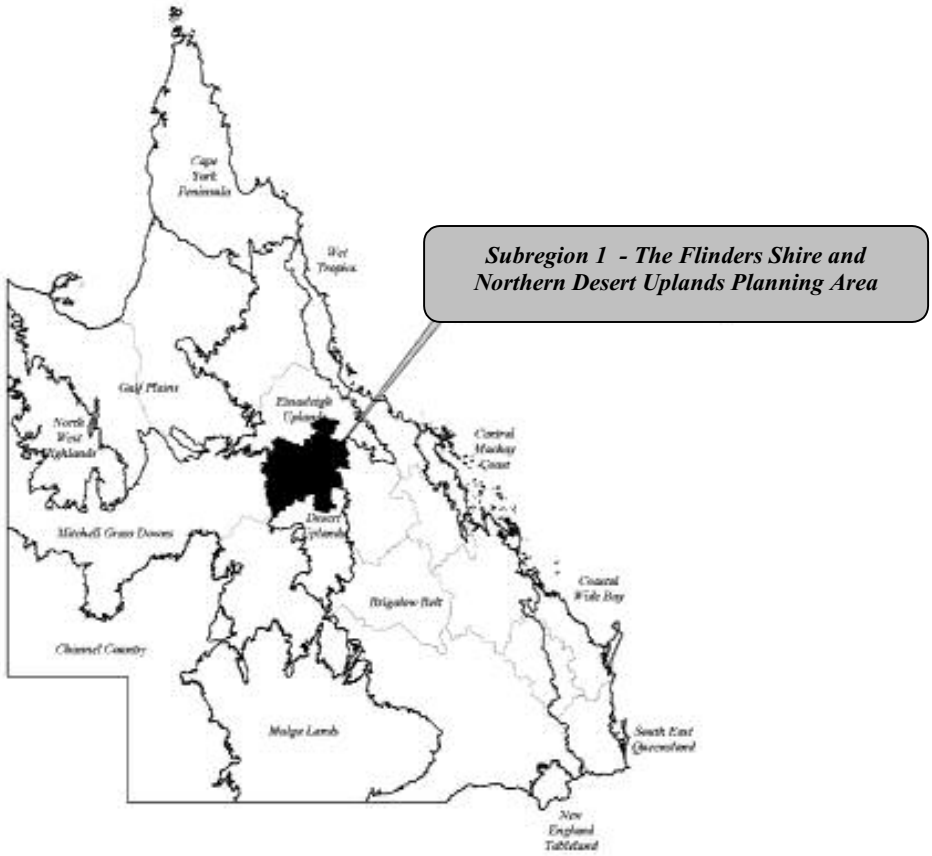
ROAD MAP

For Sustainable Production Outcomes And Enhanced Landscape Values

A formal submission commenting on
Desert Uplands (Northern) Draft Regional Vegetation Management Plan



Landholders on the Regional Vegetation Management Planning Committee, and members of both AgForce and the Towerhill Torrens Creek Catchment Landcare Group, contributed tothis Road Map

Desert Uplands (Northern) Planning Area

May 2003

Foreword

While the RVMP Committee considered the scientific and technical information made available, it also drew on local landholders' knowledge and experience as a surrogate base of formal economic and social data.

This document elaborates on, and substantiates, that accumulated core knowledge and experience.

EXECUTIVE SUMMARY

Background

Landholders on the Regional Vegetation Management Planning Committee, and members of both AgForce and the Towerhill Torrens Creek Catchment Landcare Group have been engaged in vegetation management issues discussions for more than a decade, and are aware of the need to be proactive in reconciling community environmental objectives, and to take responsibility for managing their land while being guided by the principles of Ecologically Sustainable Development. Consequently, the unfolded ROAD MAP is responsible for having brought the Regional Vegetation Management debate to the table in the Northern Desert Uplands Planning Area.

Purpose

The Road Map provides additional information to, and elaborates on, the decision rationale and outcomes of the Draft RVMP. It further addresses the key sustainability issues, through the application of local knowledge and skills to the performance requirements and acceptable solutions, and includes a management guide for timber communities and a comprehensive economic case study.

Aims

Landholders, and indeed all stakeholders alike, are determined to have planning certainty for long-term profitability. The document outlines innovative local best practices to maintain and enhance biodiversity and the sustainable economic development of landholders' properties on a regional scale.

Significant Considerations

Nature conservation data from existing sources has been properly considered. The retention rates for all Regional Ecosystems is 50% or greater, with all *Endangered* and *Of Concern* Regional Ecosystems retained (including those on the threshold of a status change).

Key catchment values will be protected. The accorded retention rates, combined with responsible sub-catchment protection in all cases of above 70% across the planning area, negate many landscape issues including salinity hazard and risk. ROAD MAP considers all available science and takes into account the nature and causes of dryland salinity, particularly the critical role of the intake and discharge areas.
Areas of High Conservation Value and Lands Vulnerable to Degradation are already highly preserved in ROAD MAP's recommendations. It is extraneous to move them to the extra level of protection through formal declarations, as the structure of the plan naturally accommodates this and already has made appropriate recommendations.

The National Park Estate has been expanded in the last ten years. An extensive stock route and road system (with recommended buffers along all major roads) criss-crosses this area and contributes to regional retention, wildlife and riverine corridors. These combine with the adjacent natural corridor of the Alice Tableland Subregion to form a significant area strongly reflecting all regional ecosystems The Flinders component boasts considerable acreage that is National Parks (approx. 3.5%) with Stock Routes, Roads and Reserves etc. a further (approx.) 5.5%.

Overall cattle numbers in the two local government authorities within the planning area demonstrate the significance of the general area in relation to production values, representing 10% of the total Queensland cattle herd, with a herd asset value of almost $500,000,000.

While development in northern Queensland may not appear as dramatic as in southern areas, it is, however, relative and the opportunity has never been more crucial when compared with current undeveloped land values.

Less productive Regional Ecosystems within the planning area have an internal rate of return on investment of approx 32% after development.

The Flinders Shire portion of the planning area makes up 85% of the freehold tenure in the entire planning area. (Approx. 250,000ha or 17% of the Flinders Shire portion is freehold.)

It is not possible to reach equitable conclusions for landholders until the contentious issue of compensation is resolved. Where the landholder is required to forego a potentially reasonable development opportunity, for a situation that is deemed to be for the community's benefit rather than the landholder's, financial assistance must be provided to the affected landholder.

Conclusions

It is important to note the scale of clearing that has occurred already in this region, and to put into perspective future clearing potential:

> Previously, there was no overall clearing cap. The current clearing in the Northern Desert Uplands is less than 7 %. With the proposed capped retention area, 81.5% would remain - even if the planning area were cleared to the maximum percentage as outlined in the Draft RVMP. Over and above this cap, there is a 10% increase of retention in the current code recommendations.
>
> It is highly unlikely that clearing ever will occur to this extent and, in any case, the large retention means the integrity of the planning area will be left intact.
> 3,000,000 ha of remnant vegetation in the Northern Desert Uplands will be preserved. This is far in excess of the amount originally proposed when the Vegetation Management Act legislation was drafted.

Although difficult to document the underlying anecdotal evidence and supporting figures, it remains indisputable that well-planned vegetation management, with soundly managed post-clearing that encompasses holistic drought and risk assessment, including the impacts of climate change on vegetation, results in sustainable beef production systems and improved enterprise viability.
The positive long-term sustainability and viability of development in the Desert Uplands (Northern) Planning Area has been demonstrated previously through the responsible actions of many landholders in our region. Stakeholders' preparedness to accept overall clearing caps, staged permitting, rigorous monitoring and necessary performance codes, within the economic constraints, highlights our community's passion for, and commitment to, Ecologically Sustainable Development (ESD.)

Preventing further tree clearing in southern Australia will have very little impact on the social and economic fabric of those rural communities. On the other hand, preventing the development of small percentages in our northern region (further development of 12 % of the Desert Uplands [Northern]) will impact severely on rural communities in northern Queensland.

The Northern RVMP process has highlighted the need to maintain autonomy at a local bioregional level, in planning for vegetation management. If this autonomy is compromised by state or federal level assessment, severe inequity will result for vast areas of northern Queensland, which will be profoundly penalised because of other regions' past vegetation management practices.

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INTRODUCTION

Landholders developed this document after establishing a clear understanding of Ecologically Sustainable Development, with the process enabling the identification of six key points:

- Suitability
- Adaptability
- Flexibility
- Responsibility
- Accountability
- Sustainability.

Through its proactivity, the document largely is responsible for bringing the overall Regional Vegetation Management debate to the table and progressing the Vegetation Management Plan to the draft stage.

Foremost, this document supports the key criteria for Regional Vegetation Management Planning in the Northern Desert Uplands by paralleling the RVMP's articulated Purposes, namely by

- Developing the plan for land use and vegetation management activities guided by the principles of ESD
- Reconciling environmental objectives in vegetation management, including the maintenance of regional biodiversity and the sustainable economic development of land
- Allowing sufficient flexibility to provide for additional protection of environmental values in local and regional circumstances, within a consistent statewide framework
- Providing planning certainty for landholders and the community
- Encouraging business innovation, best practices in property management and planning and long-term farm profitability
- Enhancing an integrated planning base.

OVERVIEW

This document relates to the Northern Desert Uplands Planning Area, but more specifically refers to Subregion 1 within the Flinders Shire. The initial recommendations and the supporting information include findings derived from those sites visited during the field trip i.e. 10.3.1; 10.3.6; 10.3.9; *10.3.10; 10.3.14; *10.3.25; 10.5.1; 10.5.2; 10.5.4; 10.5.5; 10.5.11; 10.7.1; 10.7.2; 10.7.10.

This Sub regional area is regarded as unique in terms of

- The historical impact of sheep grazing
- The significant percentage of State Lands, National Parks, and associated connectivity intertwined throughout the stock route system
- Its moderate rainfall
- Its gentle terrain throughout.

The Salinity Hazard and Salinity Risk of resultant timber management are considered to be minimal. To date there is no evidence that salinity has resulted either inside or outside the area from tree clearing in Subregion 1.

Other Regional Ecosystems including 10.3.2; l0.3.3; 10.3.12; 10.3.28; 10.5.10; and 10.7.11 (more particular to sub regions 2 and 3) were also considered and included in this document, with the appropriate supporting information.

Regional Ecosystems that do not meet any of the major development criteria throughout planning area (Part A - 100% retention) are not discussed:

10.3.5; 10.3.7; 10.3.8; 10.3.11; 10.3.13; 10.3.15; 10.3.16; 10.3.17; 10.3.20; *10.3.21; 10.3.24; *10.3.26; 10.3.29; 10.3.30; 10.4.1; 10.4.2; 10.4.4; 10.4.5; 10.4.6; 10.4.8; 10.4.9; 10.5.8; 10.5.9; 10.7.3; 10.7.4; 10.7.5; 10.7.7; 10.7.8; 10.7.9; 10.7.12; 10.7.13; 10.9.1; 10.9.2; 10.9.3; 10.9.5; 10.9.6; 10.9.7; 10.10.1; 10.10.2; 10.10.4; 10.10.5.

* *If individual vegetation units occur in isolation across other regional ecosystems, they will be managed accordingly.*

ISSUES AND CONSTRAINTS

Compensation
Equitable conclusions are not possible until the contentious issue of compensation is resolved. Where the RVMP requires a landholder to forego a reasonable development opportunity, for a situation that is deemed to be for the community's benefit rather than the landholder's, financial assistance must be provided to the affected landholder.

Regional Ecosystem Mapping
The Desert Uplands Bioregion had complete maps; unfortunately, there were major flaws in their accuracy. These problems existed not only in individual REs but also, in some cases, land zones. However, they proved to be useful tools.
These maps are extremely complicated and complex. Members of both the wider community and the RVMC often were unaware of the maps' subtle differences and nuances, and faced difficulties in interpreting them.

The RVMP process has identified some of the shortcomings of the mapping, including the length of time taken to implement the appropriate map changes. This also led to a mapping workshop being held locally, allowing some of the inaccuracies to be identified and appropriate changes to be implemented, albeit slowly.

The major problem areas were distinguishing between

- Gidgee / Blackwood communities
- Eucalypt / Box communities
- Ebony / Bauhinia communities
- Various other communities on a smaller scale
- Obvious Land Zone discrepancies
- Nebulous bioregional boundaries.

These changes are especially important, as they can tip the balance one way or another regarding a status change.

Thickening/Thinning
The thickening of the eucalypt woodlands and associated species of upper, mid, and lower stories is a major issue. In the future, thinning may be the only means available to treat some of the thickened communities.
Thinning is an awkward and contentious issue, and in the past has been viewed as a de-facto means of broad scale clearing. After working through the issues with input from various sectors, consensus has been achieved, and an acceptable solution presented.

Details have been finalised on

- Where thinning is appropriate
- How areas will be thinned
- Percentage suitable for thinning.

Benchmarking and Performance Requirements
The propensity at government level to apply benchmarking to measure performance-based outcomes in issues such as biodiversity status, salinity hazard mapping, land capability ratings and land degradation issues invariably results in:

- Negated input at local and regional levels
- Loss of local and regional knowledge
- Loss of potentially valuable local and regional data
- Reduced local and regional ownership in key decision making
- Disillusionment in the equity of the process.

Degradation

It is acknowledged that land degradation issues are present. However, other forms of degradation exhibit many guises, and no specific formula to detect it, or even assess it, exists. Clearing, in many cases, is necessary for restoration.

It can be argued that thickening is just one form of degradation, and the introduction of exotic pastures that now are naturalised is another. To date there have been little or no credible studies undertaken of the relationship between land degradation and tree clearing in the planning area.

All available published material regarding the issue reveals itself to be of a highly subjective nature, with existing assessments lacking the necessary rigour. Unfortunately, existing data formulation:

- Was developed largely for funding purposes
- Was carried out during prolonged drought in the 1990s
- Details the south of the bioregion
- Extrapolates limited information and applies it across the entire bioregion.

Land Capability

Grave apprehension emerged regarding the land capability rating system that is part of the present DNR&M template because:

- It was intrinsically designed for American farming and cropping soils and subsequent subsidy allocation (ability of farming machinery to work on various terrain, slopes etc.)
- Land capability ratings can be inconsistent across sub region, planning area, and indeed the bioregion because the system was developed by subjective assessment, fostering confusion about what is factual and what is opinion-based.

Biodiversity Status

The apprehension applies also to the biodiversity status because:

- Regional Ecosystem condition can vary across subregion, planning area, and indeed the bioregion
- The status classification system was developed by subjective assessment of condition, also fostering confusion about what is factual and what is opinion-based
- The data used to make this assessment needs to be available for review.

Regional Advice

- There are major concerns that the draft position could be overturned as a result of advice from MACVM, particularly if outsiders not having an intimate understanding and knowledge of the area are allowed to influence decisions
- If major changes are made to the draft, stakeholders reserve the right to review their formal involvement in the process
- After the plan has been implemented, it is essential that stakeholders have an ongoing role in ensuring that their interpretation of the plan remains intact, and that their original intent is not compromised by potential appropriation of the process by others.

Assessment

- Code assessment has been considered in a performance-based framework. That means that the RVMP/code can show one way of meeting the Performance Requirements (PR) in the policy
- A landholder can show other ways of meeting the PR that are recognised as an acceptable solution
- The Integrated Planning Act (IPA) provides for various forms of assessment
- Code assessment allows an assessment manager to measure the proposal against a code (RVMP) and check it for compliance
- Additional refinements will be required if the acceptable solution differs from the code.

There are other forms of assessment in IPA that have not been considered previously, one of which is Self Assessment (SA.) This requires another specific code. Self-assessment must be consistent with the code drafted specifically for the purpose.

However, there is potential to develop a local code including criteria and standards for:

- How the activity will be managed
- How the vegetation will be managed after the activity
- Future Point Standards (FPS.)

N.B. Self-assessment does not involve an assessment manager. Landholders would assess the proposed works against a code or guidelines. This is the assessment process currently used for "Forest Practice."

Consensus

Generally, consensus was achieved; however, logistics and time frames meant the committee did not have the opportunity to confirm the minutes of meetings 8 and 9, prior to the finalisation of the draft plan. As a result:

- Contention surrounded the recommended retention rate of one regional ecosystem in particular
- Although largely resolved, this issue was whether the accorded retention rate applied at a property level alone, or on a property/planning area basis
- Initial uninformed slope percentage discrepancies served to highlight and substantiate the lack of discussion on the issue at the time
- At no time was "agreement" ever reached regarding slope percentage (as suggested in the meeting's [draft] minutes) especially in relation to discussion of slope percentages and restrictions that originally had materialised in the final draft plan.

OUTCOMES

Clearing/Retention Rates

A key issue is the retention rate to be applied to the Gidgee, Blackwood, Brigalow and more productive Eucalypt communities. The committee has recognised that the retention of 30% of individual Regional Ecosystems may not sustain biodiversity and landscape function, and has recommended a minimum regional retention of 50% for each community.

Generally, retention will be on a property basis to facilitate equitable distribution of development rights. However, on several regional ecosystems, where suitability is extremely variable, a combination both of property caps and planning area caps has been used to provide flexibility for development while retaining regional biodiversity outcomes. *Appendix D*

It would be unrealistic to assume that the remaining percentage of clearing suggested for the planning area will ever be realised.

It must be remembered that on the surface:

- The majority of the extensive REs are not available for broadscale clearing. The potential for limited clearing exists for management purposes only
- As can be seen from the regionally conducted survey, not all Lessees wish to engage in broadscale clearing *Appendix G*
- Many areas within REs deemed suitable for broadscale clearing embrace naturally "open" communities and never will be cleared.

Invariably, the Precautionary principles applied to the existing performance codes also will be applied as various "layers of assessment" at a property level. These "layers" include:

- Land capability and suitability
- Intake and discharge areas
- Slope percentage and restriction
- Basil area and soil depth
- Riparian buffers and wildlife corridors
- Other issues at a landscape and property level.

The constraints inherent in the Regional Vegetation Management Plan also ensure:

- Property vegetation management planning
- Significant overall property retentions
- Staged permitting and stringent monitoring
- Overall thinning threshold.

Because the recommendations are suitable for long-range equitable outcomes, the issues of security and certainty will be satisfied. As a consequence:

- Panic clearing that has often resulted previously will be contained
- Applicants feeling the need to "over-compensate" (by deliberately applying for a larger than necessary permit) will no longer be an issue
- The majority of illegal clearing will be avoided, as unreasonable restrictions only serve to exacerbate the issue and cause individuals to panic clear and clear illegally
- Staged Development will be achievable.

Conservation and Existing Infrastructure
Nature conservation data from existing sources has been properly considered:

- All ***Endangered*** and ***Of Concern*** Regional Ecosystems will be retained (including those on the threshold of a status change)
- Retention rates for all Regional Ecosystems will be 50% or greater
- The proposed capped retention area will be 2,787,938.27ha or 81.5%
- This is an increase of 329,719ha over the current code recommendations that stand at 2,458,218.43ha, or 71.84% of the Planning Area
- The National Park Estate has been expanded in the last ten years by the addition of Moorrinya National Park covering an area of approximately 32,000 hectares. The substantial White Mountains National Park also lies in the northern extremity of the region.

An extensive stock route and road system, with recommended buffers along all major roads, also criss-crosses this area:

- Two major routes run north/south and are subdivided and cross-linked
- Three large routes running east/west and are subdivided and cross-linked
- All are further interlinked with a vast number of gazetted roads
- This system liberally contributes to regional retention, wildlife and riverine corridors. When combined with the natural corridor of the Alice Tableland Subregion, it is considered to be a significant area strongly reflecting all regional ecosystems

This high retention and associated infrastructure will:

- Negate fragmentation at a landscape level
- Maintain an increase in biodiversity across the planning area
- Resolve the majority of other conservation issues. *Appendices A&D*

Catchments and Water Quality
The RVMP will protect key catchment values. The accorded retention rates, combined with responsible sub-catchment protection in all cases of above 70% across the planning area, negate many landscape issues including salinity hazard and risk. It considers all available science and takes into account the nature and causes of dryland salinity, particularly the critical role of the intake and discharge areas.

In Subregion 1 in particular, salinity hazard is considered minimal due to:

- Lack of rainfall to drive the process
- Level land formation with deep water tables
- Negligible salt levels in the profile
- Often-overlooked impacts of thickening and regrowth on controlling ground water flow.

Salinity Risk is also minimised through:

- Retaining all suspicious areas
- Retaining the collectively small areas that have an abundance of natural salts
- Retaining areas that are subject to brief periods of seasonal water logging.

Fortunately, these areas generally are located within relatively extensive REs that have 90% retention or above.

Areas of High Conservation Value and Lands Vulnerable to Degradation
Areas are already highly preserved. It is extraneous to move them to the extra level of protection through formal declarations, as the structure of the plan naturally accommodates this and already has made appropriate recommendations. (See following clarification):

100% retention-Part A applies to 10.3.5; 10.3.7; 10.3.8; 10.3.11; 10.3.13; 10.3.15; 10.3.16; 10.3.17; 10.3.20; 10.3.21; 10.3.24; 10.3.26; 10.3.29; 10.3.30; 10.4.1; 10.4.2; 10.4.4; 10.4.5; 10.4.6; 10.4.8; 10.4.9; 10.5.8; 10.5.9; 10.7.3; 10.7.4; 10.7.5; 10.7.7; 10.7.8; 10.7.9; 10.7.12; 10.7.13; 10.9.1; 10.9.2; 10.9.3; 10.9.5; 10.9.6; 10.9.7; 10.10.1; 10.10.2; 10.10.4; 10.10.5.

100% retention-Part B applies to 10.3.10; 10.3.12; 10.3.14; 10.3.25; 10.5.1; 10.5.10; 10.7.1; 10.7.2; 10.7.10.and 10.7.11.

High retention rates have been attributed, and more than adequately cater to the allocated performance requirements 1 to 7.

In recommending the above retention rates, the criteria for an area declared to have "high nature conservation values" were considered. The area must be one or more of the following:

- A wildlife refugium
- A center of endemism
- Vegetation clump or corridor that contributes to the maintenance of biodiversity
- An area of regrowth vegetation that will enhance an endangered regional ecosystem
- An area making a significant contribution to the conservation of biodiversity.

Other key areas also have been considered, resulting in the substantial overall retention rates across the entire planning area.

As well as identifying all areas of known degradation using practical parameters, other issues directly relating to the universal loss equation have been addressed by including:

- Sensible slope percentages
- Associated restrictions such as achievable and responsible ground cover and pasture utilisation percentages.

The issues of prevention and reversal have been addressed by applying:

- Management plans
- Staged permits
- Meticulous monitoring and assessment.

In recommending the above retention rates, the criteria for an area declared to be "vulnerable to land degradation" also were considered. The area must be subject to one or more of the following:

- Soil erosion
- Rising water tables
- The expression of salinity, inside or outside the area
- Mass movement of soil or rock
- Stream back instability
- A process that results in declining water quality.

Traditional Owner Involvement

While the attendance by the Charters Towers Land Council at meetings often has been disappointing, the general issues traditional owners have sought to discuss have not always been realistic at RVMC level. In the past, the convener has discussed the outcomes with the Charters Towers Land Council on a one-on-one basis.

The interests of traditional owners in vegetation management within the Planning Area have been acknowledged and accepted during this process. Consequently, the Plan has identified and provided specific recommendations to protect traditional owners' Cultural Heritage values**.**

Linkages with Other Initiatives

Comprehensive integration has been achieved with community Landcare groups' catchment and build-up strategies, local government and other regional initiatives, namely:

- Desert Uplands Build-Up Strategy
- Shire of Dalrymple Planning Scheme (1979)
- Shire of Flinders Planning Scheme (1996)
- Burdekin Rangelands Sub regional Strategy.

Accreditation of Contractors

This is essential in order to:

- Increase awareness of the various parameters, in particular for performance codes 1 through 7, for both broad scale and thinning undertakings
- Obviate and nullify the transfer of weeds between individual properties and Planning Areas by machine logs, wash down, employment of best practices, etc.

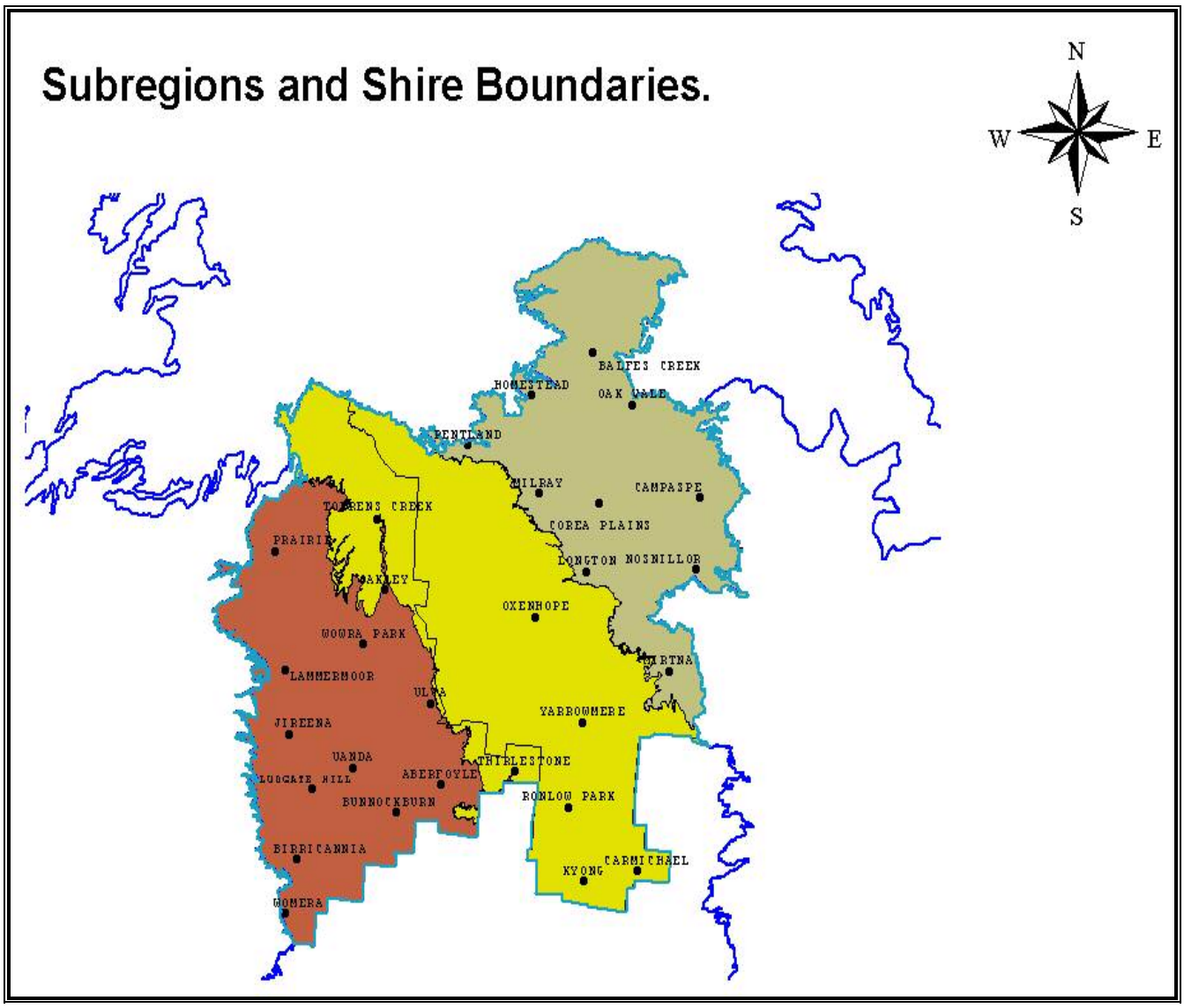
Monitoring

Future sustainability issues will be addressed by development and environmental research activities including meticulous studies of:

- Salinity
- Land degradation
- Flora
- Fauna
- Landscape assessment.

AREA SYNOPSIS

General Location



Climate

- The majority of rainfall normally occurs between December and April. Winter rainfall is uncommon.
- Average annual rainfall is approx. 500 millimetres. Seasonal variations are quite harsh, with drought being a common occurrence.
- Monthly evaporation rates normally exceed precipitation.
- Summer maximum temperature averages range between 27*C to 37*C with mild winter averages between 24*C to 27*C.

Topography

The area predominantly falls within the upper Lake Eyre catchment and the main watercourses of Prairie and Torrens Creek, with a small portion within the uppermost reaches of the Flinders River and the subsequent catchments of the Gulf of Carpentaria.

The area generally comprises level Eucalypt forest communities interspersed with open alluvial flood plain fringed with a variety of Acacia communities.

Geological Description

The Prairie-Torrens Creek Alluvial Subregion, which is dominated by extensive areas of alluvial sand and clay sheets (land zone 3) on the distributary flood plains of the ancestral Flinders River (now Prairie Creek) and Torrens Creek, falls within the southeast quarter of the Flinders Shire. In the south there is an extensive lateritic plain (land zone 7), outcropping in southern areas and along the western margin, where it forms low stony hills. Shales also underlie parts of the sub region, small areas of which outcrop in the far southwest. Comparatively small areas of the Alice Tableland Subregion exist west of the northeastern Shire boundaries; extensive deep red earths of a largely intact tertiary plateau dominate these areas. (Land zone 5.)

(NR&M 2003 Draft Desert Uplands (Northern) Regional Vegetation Management Plan)

Tenure and Land Use

The area within the Prairie-Torrens Creek Alluvial Subregion 1, covers approximately 1,054,040ha out of a Planning Area total of 3,421,613ha. The tenure is primarily Grazing Homestead Perpetual Leases and other leasehold lands (78.5%), of which approximately 12.5% is freehold. The Flinders Shire portion of the planning area makes up 85% of the freehold tenure in the entire planning area. (Approx. 250,000ha or 17% of the Flinders Shire portion is freehold.)

The Subregion boasts considerable acreage that is National Parks (approx.3.5%) with Stock Routes, Roads and Reserves etc. a further (approx.) 5.5%. *Appendix A*

Initially, the timbered areas inside the dingo-netting fence were used for sheep and cattle grazing. However, due to the presence of sheep and associated grazing patterns, the country is now more suited to beef production interests only.

Overall cattle numbers in the two shires within the planning area demonstrate the significance of the general area in relation to production values, showing:

- Approx. 1.2million head or 10% of the Queensland cattle herd (ABS figures 2001), representing
- A conservative herd asset value of almost $500,000,000, of which
- Approx. $125,000,000 can be attributed to the planning area.

Department estimates for the Flinders Shire component of the Desert Uplands are 85 385 adult equivalent, or 1:16ha, compared with the Planning Area total carrying capacity at 244 723, or 1:14 ha. These estimates suggest a:

- Direct turn-off in the Flinders Shire portion of approx. $45,000,000. *Appendices E & F*

Clearing Past, Present and Future

Over the last half-century, clearing has been limited to Gidgee 10.3.4, Blackwood 10.3.1 and the more fertile Ironbark 10.3.9 communities. As identified in the previous local guidelines, the clearing at this time is focussed primarily on these communities, all areas of which are showing sustainable production results.

Future clearing opportunities principally lie in Acacia scrubs and the more fertile Eucalypt communities. All these communities have a conservation status *"Not of concern",* with planning area extent caps.

Increasing clearing pressure also will be exerted in Eucalypt communities where smaller areas have been developed and are showing positive production results.

Broadscale development in these communities will be permitted if sustainable outcomes are forthcoming in individual demonstration areas. *Appendix G*

Social and Economic Values

Although difficult to document the underlying anecdotal evidence and supporting figures, it remains indisputable that well-planned vegetation management, when soundly managed post-clearing, results in sustainable beef production systems and improved enterprise viability.

When property management planning encompasses holistic drought and risk management, including the impacts of climate change on vegetation, some of the more prevalent benefits are:

- *Increased pasture seed bank and subsequent fodder reserves (underestimated during times of drought)*
- *Healthy land condition and pasture composition*
- *Reduced supplementation.*

Combined effects of the above benefits result in:

- *Increased calving*
- *Improved live weight gains*
- *Reduced age of turn-off*
- *Access to a wider range of marketing options*
- *Sequential value adding.*

This equates generally to a more valuable herd structure emphasising quality not quantity, i.e. fewer numbers of higher-quality cattle meaning a longer term, sustainable land resource.
*Attachment **A** Regional Ecosystem Management Guidelines and Attachment **B** "A Point in Time."*

DEFINITION OF TERMS

Other Land
Areas unavailable for broad-scale clearing i.e. roads, rails, state lands and protected areas. Refer to map of other areas in Appendix.

Extent Definitions
Limited Extent: < 50000 ha, Moderate Extent: 50000ha - 100000ha Significant Extent: 100000ha - 200000ha High Extent: 200000ha - 300000ha Extremely Extensive: > 300000ha.

Suitability Categories - (S1 to S5)
A suitability rating has been given using a five-tiered system. The explanation of each of these ratings is as follows:

S1 Highly suited for purpose denoted. There are few limitations and it is envisaged that only moderate levels of management and minor levels of resource input will be required to achieve satisfactory and sustainable production from the area.

S2 Moderately suited for denoted purpose. It is envisaged that only moderate levels of management and minor levels of resource input will be required to achieve satisfactory and sustainable production from the area. Inherent factors pose a moderate limitation to productivity.

S3 Areas are only marginally suited for the denoted purpose. Significant input levels would be required to ensure sustained productivity from the area. Inherent factors relating to REs place significant limitations on the levels of production and necessitate much higher levels of post development management input.

S4 These areas are not suited for the indicated purpose. The factors that are limiting possibly could be corrected, but at an input level which may not be feasible for some landholders given current technology and economic constraints.

S5 These areas have inherent limitations that presently make them unsuitable for development e.g. due to depth of topsoil, rock. They would require extremely high input levels to reduce potential degradation, which otherwise would seriously reduce productivity.

Staged Permitting
Can be briefly defined - as pertaining to the recommendations in the RVMP of some individual REs where various limitations may have been identified so as to facilitate the monitoring of production suitability, by staggering development time frames through the issue of multiple permits.

Staged Development
Is positively defined as a option where landholders stage their development over time and tailor it, allowing for the individual management of increased workload and greater flexibility of the associated capital expenditure within the overall permit parameters.
Ideally, development should take place in stages on all REs. These segments can be submitted by the landholder, and documented in the individual applicant's vegetation management plan as additional supporting information as strategies for pre and post development and risk reduction practices. In conjunction with practical monitoring, staging the development will reduce any risk of adverse impacts on the associated development (such as drought, cost spreading for seed, sucker control, fences, water reticulation etc) and consequently on land condition, productivity and habitat health. *(This is a separate issue from staged permitting and is not to be confused with staged permitting)*

Thickening

There are many situations across inland Queensland where overgrazing and lack of fires over the last 50 years have resulted in thickening of upper and mid story species. As a result of these practices, many landholders have inherited properties where tree thickening is major issue that cannot be addressed simply through good grazing management. These landscapes require some mechanical or chemical treatment in order to allow land managers to employ long term grazing management practices to maintain good land condition.

Landholders in North and North West Queensland have recorded their concern regarding tree thickening in the Local Best Practice reports compiled in the mid 90s. *(Kernot 2000)*

Beef producers in these areas of Queensland consider tree thickening as a major threat to production, habitats and biodiversity. The debate of tree thickening will be an ongoing one, as the problem is so widespread and there are current financial constraints preventing landholders from undertaking mechanical or chemical thinning on a broad scale. It is therefore important that thinning guidelines are based on the long term and include methods that landholders can implement practically**.**

Thinning

The practice of sustainable thinning using a variety of mechanical/chemical means needs to apply when production, land condition and habitat health has been compromised due to woodland thickening. This could include any RE across the planning area. The target for thinning would be determined by the landholder and the Vegetation Management Officer (VMO) using the RE description category as a guide (e.g. woodland, open woodland) allowing sustainable thinning to be carried out relevant to a particular RE without affecting the integrity of that RE. Ideally, examples of the specific RE in question in a non-thickened state would be located, and subsequently visited, by both the landholder and the VMO; as a result the site would become clearly established as the model for that particular thinning exercise. The non-thickened site may be on the property or in close proximity to that property. Consequently, this would reduce confusion for both the landholder and VMO in relation to the appearance of an area post thinning. Both parties then would decide on the most appropriate and cost effective method of thinning to use. Methods to measure tree basal area and projected canopy cover also could be used to design thinning implementation plans and projected targets.

Encroachment

On the boundaries of different vegetation communities, fire traditionally had controlled how these communities interact. Past grazing has resulted in reduced fire frequency and intensity due to reduced grass fuel loads. This has permitted some timber communities to expand into previously sparsely timbered or open grassland communities. This is known as encroachment. Treatment of encroachment is limited to returning these community boundaries to where fire previously maintained them, and assisting in maintaining the balance between community types. Correct treatment of encroachment is not intended to be a de-facto means of broadscale clearing and thus will not reduce retention areas.

Stock Control and Managing Land Condition Prior To Development

Ease of Mustering and cattle control is mentioned throughout these recommendations for each RE. It is critical that all stakeholders see the connection between cattle control and improved management of pasture and land condition. Ease of mustering is directly linked to sustainable grazing management. Without the ability to control cattle and get clean musters, landholders are unable to employ sustainable grazing management practices such as wet season spelling, rotational grazing or complete destocking for a given period of time. In a thickened paddock, cattle can become impossible to muster. Even a small number of rogue cattle in a paddock can do a lot of damage

to pasture in a short period of time. In many cases, the timber treatment and development of an RE is aimed at improved cattle control, as well as improving productivity and habitat health.

Stock Management Purposes
Clearing for stock management purposes may occur with a permit in all REs and under all retention percentages. Stock management purposes also may include a range of clearing operations.

A: 100% Retention
These REs are either endangered, of concern, unsuitable for development or sparsely timbered, but require some flexibility to clear small areas for treatment of encroachment, noxious and woody weeds (heartleaf, rubbervine etc.) fences, water points, roads, firebreaks, airstrips, gateways, yards, dams, power lines and other small structures.

B: 90% Retention
These REs may have limited development potential, but may sustain smaller managed areas including stock holding paddocks and demonstration sites.

This definition is to apply to REs identified as not suitable for development. Clearing will be permitted for uses in Part A: above and laneways, infrastructure, holding paddocks, fodder cropping, cooling yards etc, up to maximum of 10% of the RE per property. It also includes provision to clear smaller areas of REs identified as being unavailable for clearing, but located in an area approved for development and impractical to avoid. Such approvals would be subject to conditions to deal with degradation or biodiversity issues. Property size may be an issue as to the size of the stock management areas.

Demonstration Sites
Local tree clearing guidelines previously provided some guidance on how demonstration areas can be progressed, and are a base from which to develop requirements and provide information directly relating to the sustainability of different land management techniques, as outlined below:

- Clearing for demonstration purposes will be limited to smaller areas of no more than 800-2000 ha of a land type, provided the intent of the R.V.M.P guidelines are met
- Demonstration sites apply to all REs deemed not suitable for development
- In the future, if there are sustainable outcomes proven for a particular RE in the planning area, then this particular RE should be re-evaluated in terms of suitability for development
- Where there are existing small areas that have been sustainably developed on unsuitable REs, they should be re-evaluated in terms of suitability for development
- Initially, further development of these land types will be subject to proven sustainable development outcomes, and will be staged
- The tree clearing application needs to apply specifically for a demonstration area
- The application should include a proposed rehabilitation plan, should the development be unsuccessful.

Applications should include a detailed integrated plan and map of landform, soils and vegetation, as a framework for pre and post clearing management and monitoring. The plan should clearly identify how the site will be maintained, i.e. grazing management, weed and fire management. These areas need to be monitored for long enough to see some trends relating to the success, or otherwise, of the project. This time frame will be dependent on the particular RE and the seasonal conditions - generally no more than 5 years maximum.

Monitoring may assess the following land, pasture and habitat condition indicators:
- Biodiversity - This will be dependent on suitable and practical methods being available to allow landholders to monitor flora and fauna
- Soil erosion and soil organic matter
- Soil structure and surface sealing
- Pasture composition and ground cover.

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AgForce

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Oueensland Department of Natural Resources and Mines, Townsville

Queensland Herbarium/Queensland Environmental Protection Agency, Brisbane

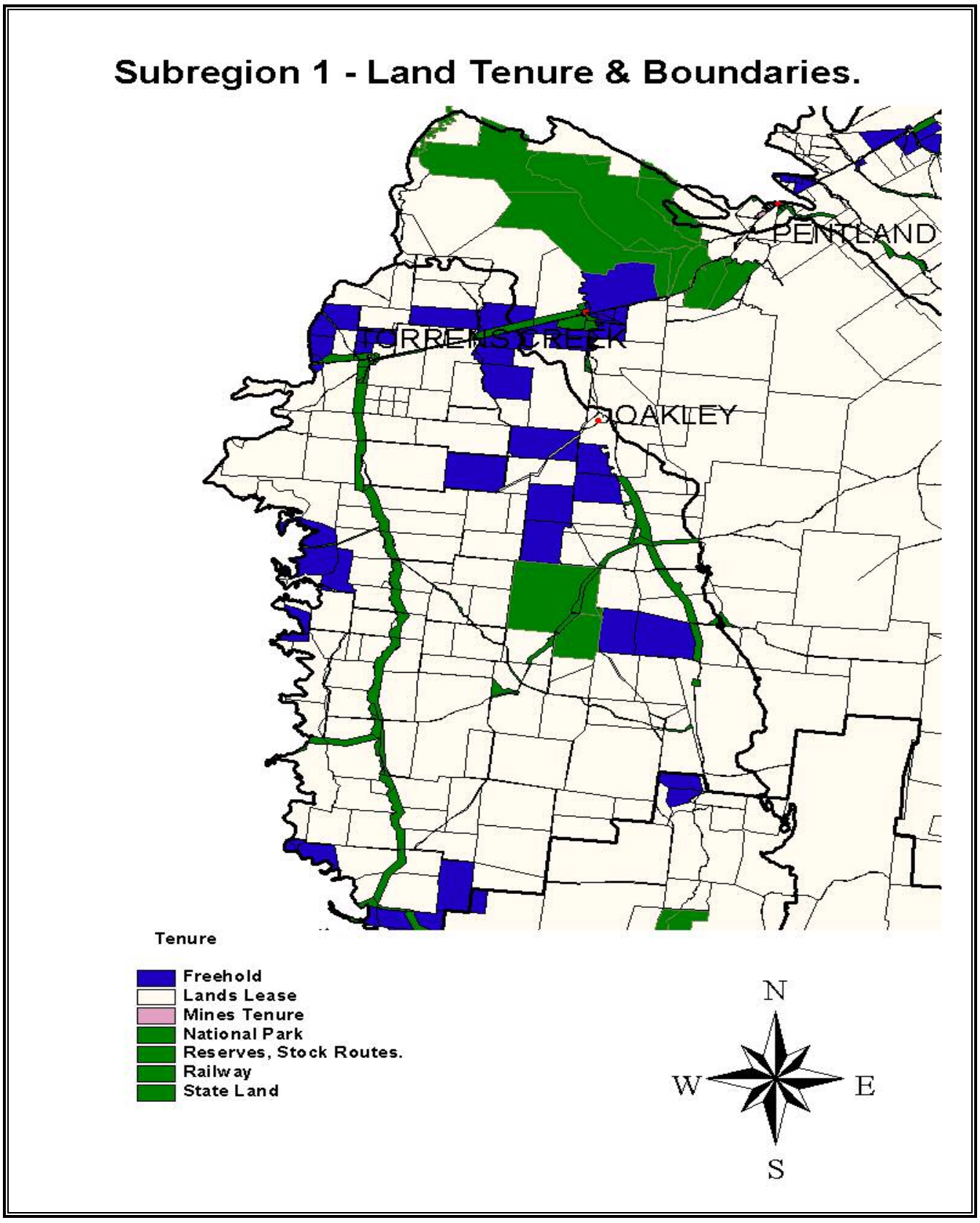
Towerhill Torrens Creek Catchment Landcare Group

Additional Information http://www.users.bigpond.com/cheltenham.station/

APPENDICES

Appendix A

Land Tenure & Boundaries



Appendix B

Basal Area Measurement

Method - Bitterlich Stick/Pencil – (N.B. This is one of several methods that may be used with varying degrees of accuracy)

- Hold the pencil vertical; at arm's length and at 1.3 meters above ground level take one 360-degree sweep.
- The tally includes any tree/stem whose diameter is equal to or exceeds the width of the pencil in the sight.
- It is important to take it slowly so as to not miss any hidden trees, and expect that roughly ten percent of trees will be borderline.
- To calculate the basal area of trees, take the tally of trees and divide by 4 giving an answer of basal area of trees in m2/ha.

Appendix C

Vegetation Classification System

Life form and height of characteristic layer[1]	Projective foliage cover of characteristic layer			
	Dense (70 – 100%)	**Mid-dense (30 – 70%)**	**Sparse (10 – 30%)**	**Very Sparse (< 10%)**
Tree[2] >30 m	Tall closed - forest	Tall open - forest	Tall woodland	
Tree 10 – 30 m	Closed - forest	Open - forest	Woodland	Open – woodland
Tree < 10 m	Low closed - forest	Low open - forest	Low woodland	Low open - woodland
Shrub[3] 2 –8 m	Closed scrub	Open - scrub	Tall shrubland	Tall open - shrubland
Shrub 1 – 2 m	Closed heath	Open - heath	Shrubland	Open - shrubland
Shrub < 1 m			Dwarf shrubland	Dwarf open – shrubland
Succulent shrub			Succulent shrubland	Open – succulent shrubland
Hummock grasses			Hummock grassland	Open – hummock shrubland
Tussock grasses		Tussock grassland	Open – tussock grassland	Sparse – tussock grassland
Herbs	Closed – herbland	Herbland	Open - herbland	Sparse – herbland
Forbs	Closed - forbland	Forbland	Open - forbland	Sparse - forbland
Sedges	Closed - sedgeland	Sedgeland	Open - sedgeland	Sparse - sedgeland

(Adapted from McDonald et al 1990)

[1] Characteristic layer is the layer which contributes most to the biomass
[2] Tree is a woody plant more than 2m tall with a single stem, or branches well above the base
[3] Shrub is a woody plant either multi-stemmed at base or within 0.2m from ground level and greater than 1.5m tall, or if single stemmed less than 2 m tall.

Appendix D

V3.1 Retention Figures

RE	Planning Area Original Extent	Planning Area Current Remnant	Planning Area %Currently Remaining	Present Retention %	Planning Area Remaining at Present Clearing %	Proposed Retention %	Planning Area Remaining Following Proposed Retention %
10.3.1	43587.4	26705.67	61.27%	50	21793.7	50	10896.85
10.3.2	87176.2	71132.05	81.60%	50	43588.08	50	21794.04
10.3.3	45959.9	29946.17	65.16%	50	22979.97	60	13787.98
10.3.4	67810.4	51813.71	76.41%	50	33905.2	50	16952.6
10.3.5	316.38	316.38	100.00%	100	316.38	100	316.38
10.3.6	358326	320162.2	89.35%	30	107497.7	70	75248.39
10.3.7	115975	111911.7	96.50%	100	115974.6	100	115974.6
10.3.8	5943.83	5836.03	98.19%	100	5943.83	100	5943.83
10.3.9	264511	246138.8	93.05%	20	52902.19	60	31741.32
10.3.10	33149	32389	97.71%	20	6629.81	90	5966.83
10.3.11	8392.93	8391.2	99.98%	100	8392.93	100	8392.93
10.3.12	20414.7	20120.47	98.56%	80	16331.72	90	14698.55
10.3.13	39959.2	38902.76	97.36%	90	35963.24	100	35963.24
10.3.14	103298	98529.3	95.38%	50	51649.11	90	46484.2
10.3.15	22503.9	21819.94	96.96%	100	22503.87	100	22503.87
10.3.16	6.35	6.35	100.00%	100	6.35	100	6.35
10.3.17	2391.28	2391.28	100.00%	100	2391.28	100	2391.28
10.3.20	97.38	97.38	100.00%	100	97.38	100	97.38
10.3.21	2155.31	2155.31	100.00%	100	2155.31	100	2155.31
10.3.22	11919.8	11919.84	100.00%	100	11919.84	100	11919.84
10.3.24	12615.8	12615.76	100.00%	100	12615.76	100	12615.76
10.3.25	13162.1	12357.36	93.89%	70	9213.44	90	8292.09
10.3.26	3502.91	3439.27	98.18%	50	1751.46	100	1751.46
10.3.28	349154	336011.8	96.24%	70	244407.9	80	195526.3
10.3.29	96.81	96.81	100.00%	70	67.77	100	67.77
10.3.30	311.88	311.88	100.00%	95	296.29	100	296.29
10.4.1	13696.2	10738.55	78.41%	100	13696.15	100	13696.15
10.4.2	3252.23	2801.35	86.14%	50	1626.12	100	1626.12
10.4.3	96.82	96.82	100.00%	50	48.41	100	48.41
10.4.4	3488.32	2279.98	65.36%	50	1744.16	100	1744.16
10.4.5	10.51	10.51	100.00%	50	5.26	100	5.26
10.4.6	1753.32	1718.88	98.04%	50	876.66	100	876.66
10.4.8	20542.4	20184.74	98.26%	50	10271.22	100	10271.22

Cont.

RE	Planning Area Original Extent	Planning Area Current Remnant	Planning Area %Currently Remaining	Present Retention %	Planning Area Remaining at Present Clearing %	Proposed Retention %	Planning Area Remaining Following Proposed Retention %
10.4.9	161.17	111.32	69.07%	50	80.59	100	80.59
10.5.1	458258	452540.6	98.75%	90	412432.4	90	371189.2
10.5.2	37406.5	37208.86	99.47%	85	31795.5	85	27026.17
10.5.4	80953.8	64581.28	79.78%	70	56667.66	65	36833.98
0.5.5	308839	275929.6	89.34%	90	277955	80	222364
10.5.8	10090.7	10047.68	99.57%	90	9081.66	100	9081.66
10.5.9	7588.88	7585.41	99.95%	100	7588.88	100	7588.88
10.5.10	20847.7	20754.76	99.55%	100	20847.74	90	18762.97
10.5.11	88717.8	87254.5	98.35%	80	70974.2	80	56779.36
10.7.1	170541	170149	99.77%	95	162014	90	145812.6
10.7.2	54265.8	49842.46	91.85%	100	54265.83	90	48839.25
10.7.3	45505.9	43655.81	95.93%	90	40955.28	90	36859.75
10.7.4	5024.26	4756.17	94.66%	95	4773.05	100	4773.05
10.7.5	7850.96	7484.99	95.34%	95	7458.41	100	7458.41
10.7.6	658.64	658.64	100.00%	100	658.64	100	658.64
10.7.7	20001.1	19313.65	96.56%	90	18000.95	90	16200.85
10.7.8	2533.28	2533.28	100.00%	90	2279.95	100	2279.95
10.7.9	1690.83	1690.83	100.00%	100	1690.83	100	1690.83
10.7.10	212989	212091.2	99.58%	90	191690	90	172521
10.7.11	41716	41381.98	99.20%	90	37544.36	90	33789.93
10.7.12	4957.21	4925.23	99.35%	90	4461.49	100	4461.49
10.7.13	2211.72	2211.72	100.00%	100	2211.72	100	2211.72
10.9.1	2974.01	2974.01	100.00%	100	2974.01	100	2974.01
10.9.2	13034	11588.89	88.91%	100	13033.96	100	13033.96
10.9.3	4415.82	4042.51	91.55%	100	4415.82	100	4415.82
10.9.5	1175.38	1175.38	100.00%	100	1175.38	100	1175.38
10.9.6	45.14	45.14	100.00%	100	45.14	100	45.14
10.9.7	3030.72	3030.72	100.00%	100	3030.72	100	3030.72
10.10.1	56414.6	56394.82	99.96%	100	56414.59	100	56414.59
10.10.2	20824.5	20817.52	99.97%	100	20824.5	100	20824.5
10.10.4	33674.7	33671.5	99.99%	100	33674.68	100	33674.68
10.10.5	47638.5	47603.55	99.93%	100	47638.5	100	47638.5
TOTAL	3421613	3201402	93.56%	71.84%	2458218	81.48%	2787938

Appendix E

Flinders Shire Carrying Capacity

RE	Flinders Shire Original Extent	Present C/C Hectare Per AE	Present Total A/E	Proposed Developed Area	Developed C/C Hectare Per AE	A/E Post Development
10.3.1	29559	12	2463	14779	8	1847
10.3.2	0	12	0	0	8	0
10.3.3	0	20	0	0	6	0
10.3.4	45492	20	2275	22746	7	3249
10.3.5	0	10	0	0	10	0
10.3.6	45816	12	3818	13744	9	1527
10.3.7	113017	10	11302	0	10	0
10.3.8	1432	10	143	0	10	0
10.3.9	280911	15	18727	112364	9	12485
10.3.10	13833	15	922	0	9	0
10.3.11	1718	18	95	0	18	0
10.3.12	8	10	1	0	10	0
10.3.13	1052	10	105	0	10	0
10.3.14	49891	10	4989	0	10	0
10.3.15	18492	10	1849	0	10	0
10.3.16	6	30	0	0	30	0
10.3.17	0	30	0	0	30	0
10.3.20	0	30	0	0	30	0
10.3.21	0	30	0	0	30	0
10.3.22	0	30	0	0	30	0
10.3.24	0	50	0	0	50	0
10.3.25	2626	18	146	0	12	0
10.3.26	34	18	2	0	12	0
10.3.28	7427	15	495	0.641	10	0
10.3.29	0	30	0	0	30	0
10.3.30	0	20	0	0	10	0
10.4.1	0	20	0	0	8	0
10.4.2	0	20	0	0	8	0
10.4.3	0	20	0	0	6	0
10.4.4	0	20	0	0	8	0
10.4.5	0	20	0	0	7	0
10.4.6	0	12	0	0	8	0
10.4.8	0	10	0	0	10	0
10.4.9	0	10	0	0	10	0

Cont.

RE	Flinders Shire Original Extent	Present C/C Hectare Per AE	Present Total A/E	Proposed Developed Area	Developed C/C Hectare Per AE	A/E Post Development
10.5.1	122331	18	6796	12233	12	1019
10.5.2	25467	18	1415	3719	12	310
10.5.4	3128	14	223	0	10	0
10.5.5	176	14	13	0	10	0
10.7.6	542	40	14	0	40	0
10.7.7	4022	30	134	0	30	0
10.7.8	2582	30	86	0	30	0
10.7.9	962	25	38	0	25	0
10.7.10	213332	25	8533	0	25	0
10.7.11	0	25	0	0	25	0
10.7.12	202	25	8	0	25	0
10.7.13	2211	22	101	0	22	0
10.9.1	2465	30	82	0	30	0
10.9.2	0	30	0	0	30	0
10.9.3	0	30	0	0	30	0
10.9.5	0	20	0	0	20	0
10.9.6	45	30	2	0	30	0
10.9.7	2792	30	93	0	30	0
10.10.1	18527	40	463	0	40	0
10.10.2	10512	30	350	0	30	0
10.10.4	7150	40	179	10	40	0
10.10.5	12571	40	314	0	40	0
TOTAL	**1294869**		**76850**	**189418**	**1285**	**21421**

*** The Flinders Shire portion of the Planning Area encompasses 38%, of which 5.9% has been developed of a proposed 15% that is considered suitable for broadscale clearing.**

Appendix F

Dalrymple Shire Carrying Capacity

RE	Dalrymple Shire Original Extent	Present C/C Hectare Per AE	Present Total A/E	Proposed Developed Area	Developed C/C Hectare Per AE	A/E Post Development
10.3.1	14028.4	12	1169	7014	8	877
10.3.2	87176.15	12	7265	43588	8	5449
10.3.3	45959.94	20	2298	18383	6	3064
10.3.4	22318.4	20	1116	11159	7	1594
10.3.5	316.38	10	32	0	10	0
10.3.6	312509.65	12	26042	93752	9	10417
10.3.7	2957.62	10	296	0	10	0
10.3.8	4511.83	10	451	0	10	0
10.3.9	0	15	0	0	9	0
10.3.10	19316.04	15	1288	0	9	0
10.3.11	6674.93	18	371	0	18	0
10.3.12	20406.65	10	2041	0	10	0
10.3.13	38907.15	10	3891	0	10	0
10.3.14	53407.22	10	5341	0	10	0
10.3.15	4011.87	10	401	0	10	0
10.3.16	0.35	30	0	0	30	0
10.3.17	2391.28	30	80	0	30	0
10.3.20	97.38	30	3	0	30	0
10.3.21	2155.31	30	72	0	30	0
10.3.22	11919.84	30	397	0	30	0
10.3.24	12615.76	50	252	0	50	0
10.3.25	10536.05	18	585	0	12	0
10.3.26	3468.91	18	193	0	12	0
10.3.28	341727.11	15	22782	68345	10	6835
10.3.29	96.81	30	3	0	30	0
10.3.30	311.88	20	16	0	10	0
10.4.1	13696.15	20	685	0	8	0
10.4.2	3252.23	20	163	0	8	0
10.4.3	96.82	20	5	0	6	0
10.4.4	3488.32	20	174	0	8	0
10.4.5	10.51	20	1	0	7	0
10.4.6	1753.32	12	146	0	8	0
10.4.8	20542.43	10	2054	0	10	0
10.4.9	161.17	10	16	0	10	0

Cont.

RE	Dalrymple Shire Original Extent	Present C/C Hectare Per AE	Present Total A/E	Proposed Developed Area	Developed C/C Hectare Per AE	A/E Post Development
10.5.1	335927.22	18	18663	0	12	0
10.5.2	11939.47	18	663	0	12	0
10.5.4	77825.8	14	5559	27239	10	2724
10.5.5	308662.93	14	22047	61732	10	6173
10.5.8	8027.73	18	446	0	12	0
10.5.9	0	18	0	0	12	0
10.5.10	19840.74	18	1102	0	12	0
10.5.11	39603.75	20	1980	79206	10	7921
10.7.1	0	25	0	0	25	0
10.7.2	42077.83	25	1683	0	25	0
10.7.3	34530.87	40	863	0	40	0
10.7.4	4876.26	40	122	0	40	0
10.7.5	7621.96	40	191	0	40	0
10.7.6	116.64	40	3	0	40	0
10.7.7	15979.05	30	533	0	30	0
10.7.8	0	30	0	0	30	0
10.7.9	728.83	25	29	0	25	0
10.7.10	0	25	0	0	25	0
10.7.11	41715.96	25	1669	0	25	0
10.7.12	4755.21	25	190	0	25	0
10.7.13	0.72	22	0	0	22	0
10.9.1	509.01	30	17	0	30	0
10.9.2	13033.96	30	434	0	30	0
10.9.3	4415.82	30	147	0	30	0
10.9.5	1175.38	20	59	0	20	0
10.9.6	0.14	30	0	0	30	0
10.9.7	238.72	30	8	0	30	0
10.10.1	37887.59	40	947	0	40	0
10.10.2	10312.5	30	344	0	30	0
10.10.4	26524.68	40	663	0	40	0
10.10.5	35067.5	40	877	0	40	0
TOTAL	**2144220**		**138867**	**410418**	**1285**	**45052**

*** The Dalrymple Shire portion of the Planning Area encompasses 62%, of which 6.6% has been developed of a proposed 19% that is considered suitable for broadscale clearing.**

Appendix G

Analysis of Community Questionnaire

Desert Uplands (Northern) Regional Vegetation Management Plan

Background

The Committee has made draft recommendations for clearing and retention rates for the 63 regional ecosystems within its planning area. To provide some feedback on the Committee's recommendations, NR&M sent 140 questionnaires (August 2002) to freehold and leasehold landholders whose properties were larger than 5 000ha. The following is a summary of the results from this process.

Landholder Statistics (Questions 1 and 2)

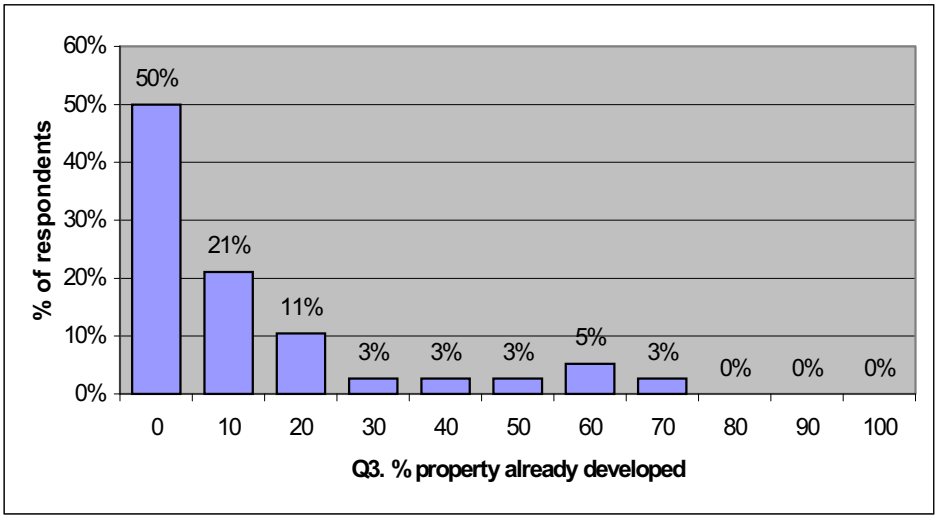
Of the 140 questionnaires sent, 38 (27%) were returned within the set timeframe. Of these, 28 (79%) were leasehold properties, 11 (29%) freehold and 3 (8%) contained both leasehold and freehold land. Thirteen (34%) respondents were from Dalrymple Shire, 23 (60%) were from Flinders and two (5%) were in both Shires.

The interest in the vegetation management debate in the Flinders Shire and Subregion 1 is considerable. Over 60% of those surveyed in the Shire responded. ***(Landholders et al 2002)***

Property Development (Questions 3 and 4)

When landholders were questioned about what percentage of their property has been broadscale cleared, half (50%) the respondents had cleared only between 0-10%. 21% indicated 10% clearing, 10% indicated 20% clearing, 5% indicated 60% clearing and 3% indicated 30%, 40%, 50% and 70% clearing on their properties. No respondents indicated more than 80% clearing on their properties. The majority of clearing has occurred on Ironbark (33%), False Sandalwood (22%), Gidgee (19%) and Blackwood (13%.)

Figure 1: Percentage of the Property Developed



When landholders were asked what percentage of their property they would consider suitable for further broadscale development, the majority (24% and 21%) of respondents indicated 10% and 30% respectively. Eleven percent of respondents indicated 40%, 8% indicated 0%, 50% and 70%, and 5% indicated 20% and 60%.

When the area developed was totalled (i.e. area already cleared and area they wanted to be cleared), the majority (69%) of landholders only wanted to develop less than 50% of their property. Only 31% wanted to develop more than 50% of their properties.

The majority of further clearing has been identified as Ironbark (58%), Gidgee (19%), Currant bush (11%), and Blackwood (13%.)

Activities for Clearing (Question 5)
The majority of respondents (58%, 45% and 42%) indicated pasture improvement, management purposes and thickening, respectively, as their main reason for clearing. Sixteen percent indicated weed management as a problem while only 5% indicated their clearing would be for intensive cropping.

Vegetation Thickening (Question 6)
Almost all respondents (94%) indicated that thickening of vegetation was evident on their property, with the majority of landholders (56%) identifying Ironbark as the primary vegetation community for thickening. False sandalwood (19%) and wattles (17%) were the majority identified in other responses.

Of those respondents who indicated that vegetation thickening was an evident on their property, 61% indicated that this was largely due to a change in fire management, 71% indicated seasonal conditions while only 32% indicated a change in grazing practices as the reason.

The majority of landholders (76%) indicated that mechanical treatment was the most effective and efficient method of treating thickening, while 58% of respondents indicated fire or controlled burn was on option. Only 16% indicated chemical methods would be used.

Some comments regarding the reasons for using a particular method include:
- To rehabilitate land and vegetation back to its natural state
- The most economical way of clearing, and can be seeded at the same time
- Large hot end of season fires do a great job of clearing up the countryside
- Fire is a natural way that will also regenerate the country, mechanical is the only other way to manage country that is overgrown
- To decrease the pressure on the grass caused by the overpopulation of timber and woody weeds
- The only practical way to thin large areas is mechanical.

Property and Planning Area Thresholds (Question 7)
The majority (64%) agreed that there should be planning area and property thresholds, giving as the reasons a reduction in 'first-in-best-dressed' behavior and having a fairer system.

Of the 11 respondents who did not want both planning area and property thresholds, 40% indicated that tree clearing and retention rates should be individually determined for each property. Therefore, if some landholders do not want to clear, other properties could.

Guidelines for Freehold and Leasehold Land (Question 8)
Of the 38 respondents to the questionnaire, 50% said that there should be separate guidelines for freehold and leasehold land. Those who disagreed with similar guidelines said it was due to the timber being purchased as part of the freehold process.
Of those who agreed that the guidelines should be the same, the following reasons were given:
- Just because country is freehold does not lessen its ecological and conservation value. All flora and fauna should have the same rights to exist regardless
- The land and vegetation types are the same and so should the rules be the same
- The type of holding should not affect the way the land is managed
- There needs to be uniformity for retention areas (e.g. Wildlife corridors.)

Code Draft Recommendations (Question 9)

A. 71% of respondents agreed with the retention of a minimum of 100m buffers from the high water levels of swamps, lakes and lagoons. Stock management, encroachment issues and weed management were given as key issues associated with management of wetlands.
B. The lack of a definition for 'river', 'creek' and 'waterway' was the main reason why there was no clear agreement on the buffer distances.
C. 39% of respondents agreed with having vegetation corridors at least 200m wide and to connect to other remnants. 26% disagreed, suggesting that these should be assessed on a case-by-case basis due to the variety in property sizes. 34% were undecided in their decision.
D. The majority (47%) of respondents indicated that they neither agreed nor disagreed to the retention of at least 50ha remnants. Landholders suggested this be considered on a case-by-case basis due to the variety in property sizes and shapes.
E. 50% disagreed with the suggestion of not allowing thinning in retention areas, i.e. landholders wanted to be able to thin in retention areas to allow easier stock management. 39% agreed to the suggestion that thinning should not occur within retention areas. The Committee needs to discuss whether thinning can occur within retention areas.

Draft recommendations (Question 11)

The majority of respondents agreed to the proposed draft recommendations. The only exception was RE10.3.9 where landholders noted the following comments:

- Problems with thinning parameters (per newsletter.) Suggest 50% planning area cap for 10.3.9, but leave property clearing at 50% and 70% respectively
- 10.3.9 develops quite well
- RE10.3.9: 70% clearing is OK, but disappointed with 30% clearing threshold (region.) Others have developed this type of country very successfully
- RE10.3.9 This type of vegetation has been successfully developed at Woodbine Station.

A summary of the landholders' responses is tabulated below:

Regional Ecosystem	Agree %	Disagree %	Neither %
10.3.1	**58**	3	11
10.3.2	**45**	3	6
10.3.3	**32**	8	13
10.3.4	**55**	3	6
10.3.6	**47**	3	13
10.3.9	26	**34**	3
10.3.25	**34**	13	13
10.3.28	**32**	5	16
10.5.4	**39**	8	11
10.5.5	**39**	5	13
10.5.11	**50**	5	8
10.7.10	**53**	0	8

(NR&M 2003 Draft Desert Uplands [Northern] Regional Vegetation Management Plan)

ATTACHMENT A

REGIONAL ECOSYSTEM MANAGEMENT GUIDELINES FOR THE DESERT UPLANDS (NORTHERN) PLANNING AREA

Regional Ecosystem Management Guidelines

Table of contents

Regional Ecosystem No. – 10.3.1

Description	**Blackwood low open woodland on grey clays and duplex soils on alluvial plains.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT – 43587.4ha** **PLANNING AREA REMNANT – 26705.67ha** **OTHER LANDS unavailable for broadscale clearing - 2206.58ha- 5.06%** **DISTRIBUTION – Subregion - 1**
Area developed	**PLANNING AREA 39%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S2***	• On clay soils, this RE has the highest production potential in a naturally open state of any RE across the bioregion; however it doesn't always lend itself to many of the improved pastures, due to occasional water logging. • These clay soils are well structured and high in fertility and, where seasonal water logging isn't apparent, will support good quality /quantity of pasture for grazing, ground habitat and land protection purposes i.e. ground cover. • This RE responds well to development and pastures are easily established. • The hard setting duplex soils are not as productive as the clay soils and, generally, timber is thicker on these duplex soils than on the clays. • Native pastures in developed paddocks and the uncleared adjacent REs can be established or regenerated if these duplex soils are carefully managed pre and post development.
Threatening processes	• Weeds - Parkinsonia, mother of millions. • False sandalwood, currant bush, whitewood thickening and native pasture decline is a major concern across this RE. • In a thickened state, cattle control and mustering is nearly impossible. Mustering difficulties and the inability to completely destock can have adverse impacts on land and pasture condition across this RE.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Erosion on hard setting soils across sloping country. • Suckers and regrowth – particularly false sandalwood.
Practical risk reduction	• Concentrate on areas of limited gradient and best practice grazing management including fire to control suckers and regrowth. Careful grazing management and spelling will maintain ground cover and reduce erosion. • On duplex soils where surface sealing may be a problem, timber can be left on ground for 1 to 2 seasons to reduce overland flow, increase water infiltration and encourage perennial pastures establishment. • This management recommendation should be applied practically, depending on the situation and season. In some cases 1 to 2 seasons may not be enough.

Pre and post development strategies	• All producers will document a property management plan detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to fencing, waters, paddock size, cattle control and grazing management. • Development is to be undertaken either by informed landholders or accredited contractors. • This RE is ideally locked up after development so that the area can be burnt. • Improving general management (i.e. enhancing clean musters) by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. • Controlling rubbervine and Parkinsonia is also a high priority.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • Fauna monitoring techniques will be used if available.
Economic value to local grazing industry ***10 = V High value*** ***1 = V Low value***	Although there is a limited extent, this is a very productive RE when developed. **9** For clay soils. **7** For hard setting soils.
Local demand to develop this RE	• The understory and thickening of this RE is a major issue and this increases the local demand to improve land condition across this RE. • In its open state, the demand to clear this RE will be minimal.
Max % to be developed for production purposes and to maintain the integrity of this RE	• **The upper limit of clearing across the planning area should be 50%.** • **Presently, 11.2% or 4911.97ha remain to be sustainably developed before the threshold is triggered.** • **On a property basis, 50% is allowable for development.** • **Staged development applies to the texture contrast soils within the RE only (400ha/Stage.)** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and include fauna records kept by landholders.

Description	**Blackwood low open woodland and Blackbutt open woodland with a lower tree story of Blackwood. Very open tussock grassland under-story. Occurs on clays and duplex soils on alluvial plains.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT – 87176.15ha.** **PLANNING AREA REMNANT – 71132.05ha.** **OTHER LANDS unavailable for broadscale clearing – 1347.19ha - 1.5%.** **DISTRIBUTION – Subregion - 2, 3**
Area developed	**PLANNING AREA - 18%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S2***	• In a naturally open state with clay soils, this RE has one of the higher production potentials across the planning area. • These clay soils are well structured and high in fertility will support a good quality and quantity of pasture for grazing, ground habitat and land protection purposes i.e. ground cover. • This RE responds well to development, and pastures are easily established. • The hard setting duplex soils are not as productive as the clay soils, and generally timber is thicker on these duplex soils than on the clays. • Native pastures in developed paddocks and uncleared adjacent REs can be established or regenerated, if these duplex soils are carefully managed pre and post development.
Threatening processes	• Weeds - Parkinsonia, mother of millions. • False sandalwood, currant bush, whitewood thickening and native pasture decline is a major concern across this RE. • In a thickened state, cattle control and mustering is nearly impossible. Mustering difficulties and the inability to completely destock can have adverse impacts on land and pasture condition across this RE.
Identifiable risk factors to consider when developing this RE	• Erosion on hard setting soils across sloping country. • Suckers and regrowth – particularly false sandalwood.
Practical risk reduction	• Concentrate on areas of limited gradient and best practice grazing management, including fire to control suckers and regrowth. Careful grazing management and spelling will maintain ground cover and reduce erosion. • On duplex soils where surface sealing can be a problem, timber can be left on ground for 1 to 2 seasons to reduce overland flow, increase water infiltration and encourage perennial pastures establishment. • This management recommendation should be applied practically, depending on the situation and season. In some cases 1 to 2 seasons may not be enough.
Pre and post development strategies	• All producers will document a property management plan detailing pre and post development strategies. • Development to be undertaken either by informed landholders or accredited contractors. • Producers developing this RE need to adhere to local best practices in relation to fencing, waters, paddock size, cattle control and grazing management. • This RE ideally is locked up after development so that the area can be burnt.

	• Improving general management (i.e. enhancing clean musters) by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. • Controlling exotic weeds is also a high priority e.g. rubbervine and Parkinsonia.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • Fauna monitoring techniques will be used if available.
Economic value to local grazing industry ***10 = V High value*** ***1 = V Low value***	Although there is a limited extent, this is a very productive RE when developed. **9** For clay soils. **7** For hard setting soils.
Local demand to develop this RE	• In its open state, the demand to clear this RE will be minimal. • The under-story and thickening of this RE is a major issue, and this increases the local demand to improve land condition across this RE.
Max % to be developed for production purposes and to maintain the integrity of this RE	• **The upper limit of clearing across the planning area should be 50%, i.e. 27544.05ha. 31.60% of RE within the planning area may be sustainably developed before the threshold is triggered.** • **On a property basis, 50% is allowable for development.** • **Staged development applies to the texture contrast soils within the RE only (400ha/Stage.)** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives would conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check, and include fauna records kept by landholders.

Description	**Low open woodland of Brigalow +/- Blackbutt emergents over a very open tussock grassland understory. Occurs on heavy clay soils on alluvial plains.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT – 45959.94ha** **PLANNING AREA REMNANT – 2946.17ha** **OTHER LANDS unavailable for broadscale clearing – 478.05ha - 1.04%** **DISTRIBUTION – Subregion - 3**
Area developed	**PLANNING AREA - 35%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S1***	• The heavy clay soils and the extent of clearing associated with this RE to date reflect that it has one of the higher production potentials across the planning area. These clay soils are well structured and high in fertility and will support a good quality and quantity of pasture for grazing, ground habitat and land protection purposes i.e. ground cover. • This RE responds well to development, and pastures are easily established. • Native pastures in developed paddocks and uncleared adjacent REs can be established or regenerated if these soils are carefully managed pre and post development.
Threatening processes	• Weeds - Parkinsonia, mother of millions. • False sandalwood, currant bush, whitewood thickening and native pasture decline is a major concern across this RE. • In a thickened state cattle control and mustering is nearly impossible. Mustering difficulties and the inability to completely de-stock can have adverse impacts on land and pasture condition across this RE.
Identifiable risk factors to consider when developing this RE	• Erosion risk is very low because the soils inherently support a good pasture biomass when developed, and ground cover is easy to maintain using best practice grazing management. • Suckers and regrowth, particularly false sandalwood.
Practical risk reduction	• The risks are low in developing this RE because the soils associated with this RE are fertile, well structured and have good water holding capacities. • Good pasture and grazing management will ensure adequate ground cover and will maintain a healthy stand of pasture species.
Pre and post development strategies	• All producers will document a property management plan detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to fencing, waters, paddock size, cattle control and grazing management. • This RE ideally is locked up after development so that the area can be burnt. • Development to be undertaken either by informed landholders or accredited contractors. • Improving general management (i.e. enhancing clean musters) by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous

	grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. • Controlling exotic weeds is also a high priority e.g. rubbervine and Parkinsonia.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • Fauna monitoring techniques will be used if available.
Economic value to local grazing industry ***10 = V High value*** ***1 = V Low value***	Although there is a limited extent, this is a very productive RE when developed. **9** for clay soils
Local demand to develop this RE	• In its open state, the demand to clear this RE will be minimal. • The understory and thickening of this RE is a major issue, and this increases the local demand to improve land condition across this RE.
Max % to be developed for production purposes and to maintain the integrity of this RE	• **The upper limit of clearing across the planning area should be 40%, i.e. 1843 ha. 4% of RE within the planning area may be sustainably developed before the threshold is triggered.** • **On a property basis, 50% is allowable for development.** • **Staged development applies to any texture contrast soils within the RE only (400ha/Stage.)** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between, govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and include fauna records kept by landholders.

Description	**Low woodland of Gidgee with very open tussock grassland, on heavy clays on alluvial plains, and can include areas of Boree.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT – 67810.4ha** **PLANNING AREA REMNANT – 51813ha** **OTHER LANDS unavailable for broadscale clearing - 6409.54ha - 9.45 %** **DISTRIBUTION – Subregion - predominately 1 small areas Subregion 2**
Area developed to date	**PLANNING AREA - 25%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S1***	• This RE in its natural state has one of the lowest production rates of any RE across the bioregion; however when developed has comparatively the highest production potential of any RE across the Bioregion. • The soils are well-structured and high in fertility and will support a good quality and quantity of pasture for grazing and land protection purposes. • This RE responds well to development, and pastures are easily established in developed paddocks and uncleared adjacent REs.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Currently, there are no saline areas that have developed across the bioregion where this RE has been cleared. This RE was first cleared in the 1960s. • Erosion risk is very low because the soils inherently support a good pasture biomass when developed, and ground cover is easy to maintain using best practice grazing management.
Practical risk reduction	• The risks are low in developing this RE because the soils associated with this RE are fertile, well structured and have good water holding capacities. • Good pasture and grazing management will ensure adequate ground cover and will maintain a healthy stand of pasture species.
Pre and post development strategies	• All producers will document a property management plan detailing pre and post development strategies. • Landholders developing this RE need to adhere to local best practices in relation pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • The area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.

Threatening process	• Thickening of all associated communities, particularly sandalwood and whitewood. • Encroachment of RE onto peripheral communities and vice-versa, as well as suckers onto downs country and open plains. This includes both Gidgee and Boree. • This encroachment also can occur across eucalypt REs.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• The importance of this RE is evident by the % cleared to date. • Landholders across the planning area maintain the developed areas of this RE are continually highly productive. • Landholders with a larger % of this RE developed are able to spell the more sensitive areas across their property. **9**
Max % to be developed for production and to maintain the integrity of this RE	• **The upper limit of clearing across the planning area should be 50%, i.e. 26.41% or 17908.17ha of RE may be sustainably developed before threshold is reached.** • **On a property basis, 50% is allowable for development.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Regional Ecosystem No. – 10.3.6

Description	**Reid River Box woodland or open woodland on clays and duplex soils on alluvial plains.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 358325.65ha** **PLANNING AREA REMNANT - 320162.23ha** **OTHER LANDS unavailable for broadscale clearing - 12723.3ha - 3.23%** **DISTRIBUTION - Subregion - 1, 2, 3**
Area developed to date	**PLANNING AREA - 11%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S2/S3***	• Soil fertility is adequate. • In an open state, this RE supports a good stand of native pastures including forest blue, black spear and kangaroo grass. • Native pastures respond well to clearing in this RE, and also respond in uncleared adjacent REs.
Threatening processes	Thickening – box, currant bush, whitewood and false sandalwood.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Erosion on excess slope and on duplex soils. • Suckers and regrowth. • Burning fallen logs initially can be difficult, due to the smooth attributes of the timber.
Practical risk reduction	• Concentrate on areas of limited gradient. • Best practice grazing management to promote a healthy native perennial pasture base and maintaining ground cover for land protection. • Use fire to control suckers and regrowth.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Regarding loamy soils, burning the timber on the ground can be achieved earlier than on soils where there may be surface sealing. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.

Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• Moderately extensive area that, in its open state, is largely productive. • Again, thickening is the issue. **7**
Local demand for clearing this RE	• If in open state, the demand to clear this RE will be minimal. • The thickening understory is the main issue affecting this RE in terms of productivity and habitat health.
Max % to be developed for production and to maintain the integrity of this RE	• **This is an extensive RE and will be cleared in conjunction with other REs.** • **The upper limit of clearing across the planning area is 30%, i.e. 19.35% or 69334.23ha of RE may be sustainably developed before the threshold is triggered.** • **On a property basis, 50% is allowable for development.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Regional Ecosystem No. – 10.3.9

Description	**Whites Ironbark or Silver-leaved Ironbark and/or Narrow-leaved Ironbark in north on yellow earths.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT – 264511ha** **PLANNING AREA REMNANT – 246139ha** **OTHER LANDS unavailable for broadscale clearing - 30927.74ha 11.7%.** **DISTRIBUTION – Subregion - 1**
Area developed to date	**PLANNING AREA - 7%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S2***	• Areas have been sustainably developed for up to 40 years. • Soil fertility can vary across the planning area, and there may be some management requirements to ensure the successful development of the lighter soils. • Originally this RE, in an open state, could support a good stand of native pastures including blue grass, black spear grass and kangaroo grass. • Native pastures respond well to clearing, as do native pastures in uncleared adjacent REs. • It is predominantly in the north of the bioregion.
Threatening processes	Thickening – currant bush, sandalwood and all ironbark species.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Erosion on excess slope. • Suckers and regrowth.
Practical risk reduction	• Concentrate on areas of limited gradient, and use grazing management best practices including fire to control suckers and regrowth. • This RE can be burnt easily post timber treatment, due to grass and timber combustibility – this aids in regrowth control and pasture regeneration. • It is nearly impossible to regenerate degraded native pastures in thickened areas without development.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • On the loamy soils, burning the timber on the ground can be achieved earlier than on soils where there is surface sealing. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures.

	• This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• High because of the extent across Subregion 1. • Developing this RE could have the biggest impact by reducing grazing pressure on other REs across a property. This will allow land and pasture condition on these other REs to be improved. • Thickening and native pasture decline is a major concern also across this RE, hence the need for some timber treatment to restore productivity and the health of its habitats. **9.5**
Local demand for developing this RE	• If in open state, the demand to clear this RE will be minimal. • The thickening understory is the main issue across this RE.
Max % to be developed for production and to maintain the integrity of this RE	• **This is comparatively an extensive RE.** • **The upper threshold limit of clearing across the planning area should be 40%, i.e. 33% or 87431.78ha of RE may be sustainably developed before the threshold is triggered.** • **On a property basis, as much as 70% can be sustainably developed.** • **Staged development applies to the texture contrast soils within the RE only (400ha/Stage.)** • **Thinning in retention areas.** • ***Note – Due to different land capability constraints, this RE is unlikely to be broadscale cleared in the Southern Desert Uplands Planning Area.***
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Regional Ecosystem No. – 10.3.10

Description	**Ghost Gum and/or Bloodwood sand ridge woodland with variable lower tree story (Quinine) on sandy yellow earths on old alluvial sand plains.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 33149ha** **PLANNING AREA REMNANT - 32389ha** **OTHER LANDS unavailable for broadscale clearing - 5125.14ha - 15.5%** **DISTRIBUTION – Subregion - 1 generally subdominant**
Area developed to date	**PLANNING AREA - 2%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S3***	• When subdominant, the retention of this RE is the same as the dominant RE being developed. • Prior to thickening, this RE supported a good stand of native pastures including some blue, black spear and kangaroo grass. • Native pastures respond well to clearing and/or thinning in developed paddocks and the uncleared adjacent REs.
Threatening processes	• Woody weeds – rubbervine. • Thickening (currant bush, sandalwood, quinine, desert oak) and native pasture decline has led to production losses and mustering difficulties on this RE. Inability to achieve clean musters and completely destock has adverse impacts on land condition, because grazing pressure cannot be relieved.

Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Erosion due to lack of ground cover. • Stock will trample areas excessively when trying to graze midstory species like quinine. This impacts on native grasses, disturbs soil surface and reduces ground cover. • Suckers and regrowth.
Practical risk reduction	• Concentrate on areas of limited gradient and use best practice grazing management, including fire to control suckers and regrowth. • Native pastures respond well to development. It is nearly impossible to regenerate degraded native pastures in thickened areas without some timber treatment. • Quinine is difficult to burn – either dry or green. • Control grazing pressures to maintain ground cover for holistic systems protection.
Pre and post development strategies where a demonstration site is developed	*For demonstration sites the following management applies -* • All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. • Controlling exotic weeds also is a high priority. • It is impractical to attempt to fence off this RE and manage it on its own. • It needs to be managed on a whole paddock basis. • Retention of this RE needs to link in with other RE retention areas across a paddock. • This RE, in conjunction with the dominant RE, ideally is locked up after development so that the area can be burnt. *#See notes on demonstration sites (Definition of Terms.)*

Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Economic value to local grazing industry ***10 = V High value*** ***1 = V Low value***	It is a priority to develop this RE in conjunction with surrounding developable land types, and treat thickening to improve land and pasture condition. This will restore production levels and improve cattle control, to allow landholders to ease grazing pressure. **6**
Local demand to develop this RE	• Low demand across the planning area, but high demand on properties with severe thickening on this RE. • These properties generally will be associated with the Torrens Creek alluvial system.
Max % to be developed for production and to maintain the integrity of this RE	• **Clearing in association with the dominant RE (usually 10.3.9.) The upper limit of clearing across the planning area may be 90%.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Regional Ecosystem No. – 10.3.12

Description	**Fringing and frontage woodlands on sandy alluvial terraces. Species may include Ghost Gum or Morton Bay Ash and Gum-topped Bloodwood.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 20415ha** **PLANNING AREA REMNANT - 20120ha** **OTHER LANDS unavailable for broadscale clearing - 822.36ha - 4.02%** **DISTRIBUTION – Subregion - 2 generally sub-dominant**
Area developed to date	**PLANNING AREA - 1%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S2***	• Soil fertility and drainage is good. • This RE supports a good stand of the more palatable native pastures which respond well to timber treatment in the peripheral riparian areas and the uncleared adjacent REs.
Threatening processes	• Thickening of associated vegetation. • High grazing pressure and soil compaction. • Generally attractive to all weeds that are associated with riparian areas.
Identifiable risk factors to consider when developing this RE	• Erosion on excess slope. • Suckers and regrowth. • This RE generally is associated with riparian areas.
Practical risk reduction	• Concentrate on areas of limited gradient, and use best practice grazing management to promote a strong perennial grass layer and maintain adequate ground cover. • Strategic use of fire to control suckers and regrowth.
Pre and post development strategies	• All landholders will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Putting a time frame on this is difficult because of the variability of seasons. A rule of thumb for some situations may be the length of time it takes the suckers to grow to the point where they affect production and land condition. • On the loamy soils, burning the timber on the ground can be achieved earlier than on soils where there may be surface sealing. • This RE ideally is locked up after development so that the area can be burnt. • Regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons.

	• Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Economic value to local grazing industry ***10 = V High value*** ***1 = V Low value***	By nature, this RE is of very limited extent and, consequently, is very important because of its natural irrigation potential (general closeness to water, fertility, drainage, etc.) **9**
Local demand for developing this RE	• If in open state, the demand to clear this RE will be minimal. • The irrigation potential is the main issue.
Max % to be developed for production and to maintain the integrity of this RE	• **The upper limit of clearing across the planning area should be 10%.** • **On a property basis as much as 20% is allowable on merit.** • **Because intensive development may be appropriate, clearing will be assessed on individual basis.** • **In some instances, clearing within the watercourse buffers may exist.** *(Buffer widths will be flexible where extensive development is proposed, however the average minimum width will be maintained. Intensive clearing on one side will not be excessive, preventing loss of continuity.)* • **This RE may be cleared in conjunction with other dominant communities.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Description	**Coolabah and River Red Gum, sometimes with weeping Paperbark woodlands and open woodlands on channels, levees and floodplains. Includes billabongs, ephemeral herblands and areas of Bullrush.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 103298ha** **PLANNING AREA REMNANT - 98529ha** **OTHER LANDS unavailable for broadscale clearing - 11576ha - 11.20%** **DISTRIBUTION – Subregion - 1, 2, 3**
Area developed to date	**PLANNING AREA - 5%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S2***	• Soil fertility is adequate. • This RE supports a good stand of the more palatable native pastures which respond well to timber treatment in the peripheral riparian areas and the uncleared adjacent REs.
Threatening processes	• Thickening – box, whitewood, currant bush and false sandalwood. • High grazing pressure and soil compaction. • Generally attractive to weeds that are associated with riparian areas.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Erosion on excess slope. • Suckers and regrowth. • Burning logs can be difficult, due to the smooth attributes to some of the timber. • This RE generally is associated with riparian areas.
Practical risk reduction	• Concentrate on areas of limited gradient and use best practice grazing management to promote a strong perennial grass layer and maintain adequate ground cover. • Strategic use of fire to control suckers and regrowth.
Pre and post development strategies	• All producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. Putting a time frame on this is difficult because of the variability of seasons. A rule of thumb for some situations may be the length of time it takes the suckers to grow to the point where they affect production and land condition. • This RE ideally is locked up after development so that the area can be burnt. • On the loamy soils, burning the timber on the ground can be achieved earlier than on soils where there is surface sealing. • All landholders will document a property management plan, detailing pre and post development strategies. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures.

	• This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • Monitoring will include regrowth, pasture composition and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Economic value to local grazing industry ***10 = V High value*** ***1 = V Low value***	Mustering when seasonally wet places a major impact on ability to manage cattle, and therefore impacts severely on land and habitat condition. *These areas are natural harbors of cattle because they increasingly are becoming thick with sandalwood, currant bush and suckers. Water often is plentiful and supplementary feed unnecessary. Landholders' only strategy is to wait for these areas to dry out and trap at cattle at controlled water points. Mustering is next to impossible, and consequent delays enhance overgrazing and denude sweet areas around swamps, causing severe seasonal degradation.* **9** Due to the thickened state of this RE and natural irrigation potential.
Local demand for developing this RE	• If in open state, the demand to clear this RE will be minimal. • The understory thickening is the main issue.
Max % to be developed for production and to maintain the integrity of this RE	• **The upper limit of clearing across the planning area should be 10% for stock management purposes.** • **On a property basis, as much as 20% is allowable on merit.** • **Because intensive development may be appropriate, clearing will be assessed on individual basis.** • **In some instances, clearing within the watercourse buffers may exist.** *(Buffer widths will be flexible where extensive development is proposed; however an average minimum width will be maintained. Intensive clearing on one side will not be excessive, preventing loss of continuity.)* • **Treatment of encroachment in between these swamps and treating thick sandalwood and current bush close to these areas need to be options that are open to landholder.** • **This RE is often subdominant, and may be cleared in conjunction with other dominant REs.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • Incorporating grass check and fauna records by landholders.

Regional Ecosystem No. – 10.3.25

Description	**Landholders question mapping of these supposed False Sandalwood shrublands.** **Most of these areas originally were open blue grass flats that were overgrazed because they were so attractive to stock.** **It generally is agreed there are some smaller areas of False Sandalwood scrubs, and these could be considered as an RE across the planning area.** **Due to grazing management and lack of fire over the last 5 to 8 decades, False Sandalwood is now one of the major thickening species across many REs in the planning area.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 13162ha** **PLANNING AREA REMNANT - 13257ha** **OTHER LANDS unavailable for broadscale clearing - 2080ha - 15.8%** **DISTRIBUTION - Subregion - 1, 2, 3 generally subdominant**
Area developed to date	**PLANNING AREA - 6%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S2***	• Landholders believe that in Subregion 1 there are only limited areas of naturally occurring sandalwood scrubs that may be construed as a dominant RE across the Bioregion. • False sandalwood occurs across the majority of the REs in the Desert Uplands Bioregion as a subdominant species or encroachment. • Thick areas of encroachment of false sandalwood need to return to open communities.

	• Many of these areas were originally open blue grass flats. • In the case where there are bare and scalded areas, some ripping or reclamation may be necessary.
Threatening processes	• False sandalwood is a vigorous species that invades many REs across the planning area. • Overgrazing, surface sealing, scalding and sheet erosion.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and water depth. • Trying to accumulate fuel loads to suppress false sandalwood re-growth.
Practical risk reduction	• Ensure any ground disturbance, such as deep ripping, is on the contour. • It is considered that any ground disturbance on these bare areas will reduce runoff, increase water infiltration and promote annual and perennial pastures. • It is nearly impossible to regenerate degraded native pastures in thickened areas without some soil disturbance. • Control grazing pressures to maintain ground cover for land protection. • Fencing out these areas for stock control may be appropriate in some cases.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers clearing false sandalwood need to adhere to local best practice in relation to fencing, waters, paddock size, cattle control, ripping/reclamation and grazing management. • On these scalded bare soils, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • False sandalwood, in conjunction with the dominant RE, ideally is locked up after development so that the area can be burnt. • Development to be undertaken either by informed landholders or accredited contractors. • Improving cattle control by treating false sandalwood is an important factor in regulating grazing pressures. • The area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.

Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • Monitoring will include regrowth, pasture composition, pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• Thickening and native pasture decline has led to loss of production and mustering difficulties. • Many of these areas were traditionally open, and cattle management wasn't an issue. • It is a priority to restore the health of these landscapes and to improve production. • Timber treatment and/or thinning will improve mustering ability and cattle control, and enable spelling of areas post development. **10**
Max % to be developed for production and to maintain the integrity of this RE	• **It is a high priority for landholders across the planning area, as false sandalwood invasion is present on nearly all REs.** • **There is a sense of urgency to address this issue and reclaim these areas where there is thickening, encroachment and other forms of degradation.** • **Treatment of false sandalwood will restore many REs back to a naturally open woodland situation.** • **When it is obvious that false sandalwood has invaded open areas over the last 30 years due to grazing management and lack of fire, encroachment treatment applies.** • **Scalded country along creeks may have extensive stands of false sandalwood and other woody species understory. Treatment of these areas may be considered on merit at inspection.** • **Where imagery, historical records, etc. prove it is a genuine false sandalwood scrub and can potentially be mapped out, 10% clearing applies for stock management purposes only.** • **Accordingly, if false sandalwood is subdominant or cannot be subsequently mapped out, then the treatment associated with the dominant RE will be extrapolated.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Description	**Silver-leaved Ironbark and/or Narrow-leaved Ironbark woodland or open woodland on yellow earths on sandy alluvial fan. Bloodwood and/or Ghost Gum may be present.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 349154ha** **PLANNING AREA REMNANT - 336012ha** **OTHER LANDS unavailable for broadscale clearing - 6974ha - 2%** **DISTRIBUTION – Subregion - 2, 3**
Area developed to date	**PLANNING AREA - 4%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S3***	• Areas previously have been sustainably developed. • The loamier soils with or without a hard pan at depth have some suitability for development. • Originally, this RE could support a good stand of native pastures. • The Southern planning area considers this RE suitable and clearing is generally permissible. • Similar production potential to 10.5.4 and 10.5.5. *(See Attachment B "A POINT IN TIME" - Evaluating change on land Zone 5)* • It is important to consider the practicality of retaining subdominant species when developing this RE.
Threatening processes	• Susceptible to encroachment. • Thickening of associated understory.
Identifiable risk factors to consider when developing this RE	• Suckers and regrowth. • Maintaining ground cover.
Practical risk reduction	• Use best practice grazing management. • The use of fire to control suckers and regrowth post development. • Careful grazing management to ensure adequate ground cover is maintained. • Smaller paddocks may aid in intensive and careful management.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Regarding the loamy soils, burning the timber on the ground can be achieved earlier than on soils where there may be surface sealing. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons.

	• Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • Landholders will use fauna monitoring techniques if available.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• Important to local grazing industry. • Individual landholders in the planning area see the sustainable development of this RE as a priority. • However, it is envisaged that the pressure to develop this RE across the whole planning area will be limited. • Thickening and native pasture decline also is a major concern across this RE. **6** For loamier soils.
Local demand for developing this RE	• If in open state, the demand to clear this RE will be minimal. • Thickening of this RE is a major issue, and this increases the need to improve the land condition across the RE.
Max % to be developed for production and to maintain the integrity of this RE	• **This is a very extensive RE.** • **The upper limit of clearing across the planning area should be 20%.** • **Presently, 16% or 56688ha remain to be sustainably developed before the threshold is triggered.** • **On a property basis, 40% overall may be sustainably developed.** • **Staged development only applies to the texture contrast soils within the RE (400ha/Stage.)** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct the evaluations. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Description	**Low open woodland of Yellowjack, Gum-topped Bloodwood and Rough-leaved Bloodwood on deep red earths on tertiary sand plains. Darwin Woolybutt, Darwin Stringybark and Broad-leaved Mahogany.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 458258ha** **PLANNING AREA REMNANT - 452541ha** **OTHER LANDS unavailable for broadscale clearing - 22356.42ha - 4.8%** **DISTRIBUTION – Subregion - 2**
Area developed to date	**PLANNING AREA - 1%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S3***	• Tracts of larger broadscale clearing have taken place in the last decade. • The coarse sandy soils are not suitable for development. • The loamier soils are suitable for development and have production potential. • Fertility and pasture composition can vary across the planning area. • Originally in an open state, this RE could support a good stand of native pastures. • Native pastures respond to clearing.
Threatening processes	Thickening – currant bush, desert oak and yellowjack.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and water depth. • The coarse sandy soils are generally major intake areas. • Erosion on excess slope. • Suckers and regrowth. • Very sandy soils not suitable for clearing. • Difficult timber to burn.
Practical risk reduction	• Concentrate on areas of lower gradient. • Use best practices grazing management to regenerate pastures and maintain ground cover for land protection. • Use fire to control suckers and regrowth. • It is nearly impossible to regenerate degraded native pastures on thickened areas without some timber treatment. • Over time, burning will dispose of on-ground timber.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • This RE ideally is locked up after development so that the area can be burnt. • Development to be undertaken either by informed landholders or accredited contractors. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Regarding the loamy soils, burning the timber on the ground can be achieved earlier than on soils where there is surface sealing. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore

	regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring will include regrowth, pasture composition, pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• High, because of the very large extent across the planning area. • Thickening, land condition decline and native pasture decline is a major concern across this RE. • Some timber treatment will help restore production levels and habitat health across this RE. **5**
Local demand for developing this RE	• If in open state, the demand to clear this RE will be minimal. • Thickening of this RE is a major issue, and this increases the need to improve the land condition across the RE. • It is unlikely that this RE will be cleared to any major extent.
Max % to be developed for production and to maintain the integrity of this RE	• **This is a very extensive RE.** • **The upper limit of clearing across the planning area should be 10% clearing threshold.** • **No broadscale development of coarse sandy soils.** • **On a property basis, a maximum one-off development opportunity of 10% or 800ha, whichever is greater.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Description	**Bloodwood and Ghost Gum woodland on deep sands and earths on sand plains. A lower tree or shrub layer is often present including Tea-tree.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 37406ha** **PLANNING AREA REMNANT - 37209ha** **OTHER LANDS unavailable for broadscale clearing - 492.06ha - 1.31%** **DISTRIBUTION – Subregion - predominantly 1**
Area developed to date	**PLANNING AREA - 1%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S3***	• Small areas have been developed in the last 40 years. • The sandy loam soils are suitable for development and have production potential. • Fertility and pasture composition can vary throughout the RE. • Originally in an open state, this RE could support a good stand of the more palatable native pastures. • Native pastures respond to clearing.
Threatening processes	Thickening – currant bush, desert oak, tea tree and broadleaved wattle.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Erosion on excess slope. • Suckers and wattle regrowth.
Practical risk reduction	• Development of the sandy loam soils only. • Concentrate on areas of lower gradient. • Use best practices grazing management to regenerate pastures, and maintain ground cover for land protection after development. • Use fire to control suckers and regrowth. • It is nearly impossible to regenerate degraded native pastures on thickened areas without some timber treatment. • Over time, burning will dispose of on-ground timber.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Regarding the loamy soils, burning the timber on the ground can be achieved earlier than on soils that may surface seal. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous

	grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• High, due to its extent and location across the Subregion. (i.e. this is the only RE that falls on a percentage on a percentage of moderately sized holdings.) • Thickening, land condition decline and native pasture decline also is a major concern across this RE. Timber treatment will help restore production levels and habitat health across this RE. **5**
Local demand for developing this RE	• In open state, the demand to clear this RE will be minimal. • Thickening of this RE is a major issue and this increases the need to improve the land condition across the RE. • *In some instances, this RE encompasses entire properties; therefore it is essential the viability of these particular holdings not be compromised*.
Max % to be developed for production and to maintain the integrity of this RE	• **This is a Limited RE.** • **The upper limit of clearing across the planning area should be a 20% clearing threshold.** • **On a property basis, a maximum one-off development opportunity of 15% or 800ha, whichever is greater.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Description	**Open woodland of Narrow-leaved Ironbark and/or Narrow-leaved Red Ironbark +/- Clarkson's Bloodwood on sandy red and yellow earths on undulating sandplain.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 80954ha** **PLANNING AREA REMNANT - 64581ha** **OTHER LANDS unavailable for broadscale clearing - 3710ha - 4.5%** **DISTRIBUTION – Subregion - 2, 3**
Area developed to date	**PLANNING AREA - 20%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S3***	• Large areas have been sustainably developed since the 1970s. • The loamier soils have some suitability for development. • Originally, this RE could support a good stand of palatable native pastures. • Production potential clearly established. (*See Attachment B "A POINT IN TIME" - Evaluating change on land Zone 5*) • It is important to consider the practicality of retaining subdominant species when developing this RE.
Threatening processes	Thickening of all associated understory.
Identifiable risk factors to consider when developing this RE	• Suckers and regrowth. • Maintaining ground cover.
Practical risk reduction	• Use best practice grazing management. • The use of fire to control suckers and regrowth post development. • Careful grazing management to ensure adequate ground cover is maintained. • Smaller paddocks may aid in intensive and careful management.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • With regard to the loamy soils, burning the timber on the ground can be achieved earlier than on soils where there may be surface sealing. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.

Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• Important to local grazing industry. • Individual landholders in the planning area see the sustainable development of this RE as a priority. • However, it is envisaged that the pressure to develop this RE across the whole planning area will be limited. • Thickening and native pasture decline is also a major concern across this RE. **7** for sandy loam soils.
Local demand for developing this RE	• If in open state, the demand to clear this RE will be minimal. • Thickening of this RE is a major issue, and this increases the need to improve the land condition across the RE.
Max % to be developed for production and to maintain the integrity of this RE	• **This is a moderately extensive RE.** • **The upper limit of clearing across the planning area should be 35%.** • **Presently 15% or 11961ha remain to be sustainably developed before the threshold is triggered.** • **On a property basis, 35% overall also may be sustainably developed.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Description	**Silver leaved Ironbark woodland with an open grassland understory of wiregrass and/or spinifex occurs on loamy red and yellow earths on undulating sandplains. Includes areas of tussock grassland, Desert oak, Cypress pine and Dead finish.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 308839ha** **PLANNING AREA REMNANT - 279527ha** **OTHER LANDS unavailable for broadscale clearing - 3572ha - 1.2%** **DISTRIBUTION – Subregion - 2, 3**
Area developed to date	**PLANNING AREA - 11%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S3***	• Areas have been sustainably developed since the early 1980s. • The loamier soils, with or without a hard pan at depth, have some suitability for development. • Originally, this RE could support a good stand of native pastures. • The Southern planning area considers this RE suitable where soil depth is not an issue. • Production potential has been established. (*See Attachment B "A POINT IN TIME" - Evaluating change on land Zone 5*) • It is important to consider the practicality of retaining subdominant species when developing this RE.
Threatening processes	Thickening of all associated understory including broad- leaved wattle.
Identifiable risk factors to consider when developing this RE	• Suckers and regrowth. • Maintaining ground cover.
Practical risk reduction	• Use best practice grazing management. • The use of fire to control suckers and regrowth post development. • Careful grazing management to ensure adequate ground cover is maintained. • Smaller paddocks may aid in intensive and careful management.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Regarding the loamy soils, burning the timber on the ground can be achieved earlier than on soils where there may be surface sealing. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions.

	• Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth pasture composition, yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• Important to local grazing industry. • Individual landholders in the planning area see the sustainable development of this RE as a priority. • However, it is envisaged that the pressure to develop this RE across the whole planning area will be limited. • Thickening and native pasture decline also is a major concern across this RE. **6** For loamier soils.
Local demand for developing this RE	• If in open state, the demand to clear this RE will be minimal. • Thickening of this RE is a major issue and this increases the need to improve the land condition across the RE.
Max % to be developed for production and to maintain the integrity of this RE	• **This is a very extensive RE.** • **The upper limit of clearing across the planning area should be 20%.** • **Presently 9% or 28858ha remain to be sustainably developed before the threshold is triggered.** • **On a property basis, 40% overall may be sustainably developed within a staged permitting program.** • **Initial development stage of 10% or 1000ha, whichever is greater.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Regional Ecosystem No. – 10.5.10

Description	**Rusty jacket often with Bloodwood open woodland on sandy red soils on sandplain or shallow duplex soils on the perimeter of sandplain.**
Extent/Distribution	**PLANNING AREA ORIGINAL Extent - 20848ha** **PLANNING AREA REMNANT - 20755ha** **OTHER LANDS unavailable for broadscale clearing - 3490ha - 16%** **DISTRIBUTION - Subregion - 2**
Area developed to date	**PLANNING AREA - 0%**
Conservation status	**Not of concern**
Suitability for development and production potential S5	Hard setting and stony soils not suitable for broadscale development.
Threatening processes	Thickening – of all associated species.
Identifiable risk factors to consider when developing this RE	• Not presently suitable for broadscale clearing. • Conservative grazing management and pasture spelling is encouraged.

Pre and post development strategies where a demonstration site is developed	*For small demonstration sites the following management applies -* • All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • This RE ideally is locked up after development so that the area can be burnt. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Accepting the cost of spelling prior to fire and using fire when seedlings and suckers appear. *#See notes on demonstration sites (Definition of Terms)*
Pasture, land and ecosystem monitoring by landholder if demonstration site is developed	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth pasture composition, yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Max % to be developed for production and to maintain the integrity of this RE	**10 % per property for stock management purposes.** **Thinning of the retention area (i.e. the other 90%.)**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	Evaluation of any demonstration areas 5 years post development. This would include issues such as productivity, habitat conservation, biodiversity, salinity and management techniques in relation to industry best practice.

Description	**Whites Ironbark woodland with an open grassland understory of wiregrass and/or spinifex occurs on loamy red and yellow earths on undulating sandplains.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 88718ha** **PLANNING AREA REMNANT - 87254ha** **OTHER LANDS unavailable for broadscale clearing - 838ha - 1%** **DISTRIBUTION – Subregion - 1**
Area developed to date	**PLANNING AREA - 2%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S3***	• Areas have been sustainably developed since the early 1960s. • The loamier soils, with or without a hard pan at depth, have some suitability for development. • Originally, this RE could support a good stand of native pastures. • The Southern planning area considers this RE suitable where soil depth is not an issue. • Similar production potential to 10.5.4 and 10.5.5. (*See Attachment B "A POINT IN TIME" - Evaluating Change on Land Zone 5*) • It is important to consider the practicality of retaining subdominant species when developing this RE.
Threatening processes	Thickening – currant bush, sandalwood, desert oak, quinine and all ironbark species narrow /broad leaved wattle.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water considerations. • Suckers and regrowth. • Maintaining ground cover.
Practical risk reduction	• Use best practice grazing management. • The use of fire to control suckers and regrowth post development. • Careful grazing management to ensure adequate ground cover is maintained. • Smaller paddocks may aid in intensive and careful management.
Pre and post development strategies	• All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Regarding the loamy soils, burning the timber on the ground can be achieved earlier than on soils where there may be surface sealing. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the

	majority of seasons. • Accepting the cost of spelling prior to fire and using fire when seedlings and suckers appear.
Pasture, land and ecosystem monitoring by landholder	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Overall importance to local grazing industry ***Rating*** ***10 = very important*** ***1 = not important***	• Important to local grazing industry. • Individual landholders in the planning area see the sustainable development of this RE as a priority. • However, it is envisaged that the pressure to develop this RE across the whole planning area will be limited. • Thickening and native pasture decline also is a major concern across this RE. **6** For sandy loam soils.
Local demand for developing this RE	• If in open state, the demand to clear this RE will be minimal. • Thickening of this RE is a major issue and this increases the need to improve the land condition across the RE.
Max % to be developed for production and to maintain the integrity of this RE	• **This is a moderately extensive RE.** • **The upper limit of clearing across the planning area should be 20%.** • **Presently, 18% or 16280ha remain to be sustainably developed before the threshold is triggered.** • **On a property basis, 40% overall may be sustainably developed within a staged permitting program.** • **Initial development stage of 15% or 800ha, whichever is greater.** • **Thinning in retention areas.**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	• A balanced panel of industry, agency and community representatives will conduct evaluation. • This evaluation would include productivity gains, habitat conservation, biodiversity, evidence of salinity and grazing management in relation to industry best practice at the time. • It also would incorporate grass check and fauna records kept by landholders.

Regional Ecosystem No. – 10.7.1

Description	**Whites Ironbark low open woodland with a variable shrubby understory on low stony rises on tertiary silcretes. Spinifex dominates – soils skeletal and shallow and includes area of Ghost Gum, Rough-leaved Bloodwood and Desert oak.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 170541ha** **PLANNING AREA REMNANT - 170149ha** **OTHER LANDS unavailable for broadscale clearing - 14398ha - 8.5%** **DISTRIBUTION – Subregion 1**
Area developed to date	**PLANNING AREA - 0.3%**
Conservation status	**Not of concern**
Suitability for development and production potential S5	Hard setting and stony soils not suitable for broadscale development.
Threatening processes	Thickening – Ironbark, currant bush, sandalwood, desert oak, wild peach, quinine and all associated species.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Presently not suitable for broadscale clearing. • Conservative grazing management and pasture spelling is encouraged.

Pre and post development strategies where a demonstration site is developed	*For small demonstration sites the following management applies -* • All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. *#See notes on demonstration sites (Definition of Terms)*
Pasture, land and ecosystem monitoring by landholder if demonstration site is developed	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, and pasture yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Max % to be developed for production and to maintain the integrity of this RE	**10 % per property for stock management purposes.** **Thinning of the retention area (i.e. the other 90%.)**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	Evaluation of any demonstration areas 5 years post development. This would include issues such as productivity, habitat conservation, biodiversity, salinity and management techniques in relation to industry best practice.

Regional Ecosystem No. – 10.7.2

Description	**Low open woodland of Mallee Box, Ghost gum or Red Mallee, usually with open hummock understory of spinifex. Occurs on shallow or skeletal soils, usually near margins of laterised or silicified Tertiary plateaus.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 54266ha** **PLANNING AREA REMNANT - 49842ha** **OTHER LANDS unavailable for broadscale clearing - 214408ha - 3.23%** **DISTRIBUTION - Subregion – predominantly 1, 3**
Area developed to date	**PLANNING AREA - 8%**
Conservation status	**Not of concern**
Suitability for development and production potential S5	Hard setting and stony soils not suitable for broadscale development.
Threatening processes	Thickening – Ironbark, currant bush, sandalwood, desert oak, wild peach, quinine and all associated species.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Not presently suitable for broadscale clearing. • Conservative grazing management and pasture spelling is encouraged.

Pre and post development strategies where a demonstration site is developed	*For small demonstration sites the following management applies –* • All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. *#See notes on demonstration sites (Definition of Terms)*
Pasture, land and ecosystem monitoring by landholder if demonstration site is developed	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth; pasture composition, yield, ground, cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Max % to be developed for production and to maintain the integrity of this RE	**10 % per property for stock management purposes.** **Thinning of the retention area (i.e. the other 90%.)**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	Evaluation of any demonstration areas 5 years post development. This would include issues such as productivity, habitat conservation, biodiversity, salinity and management techniques in relation to industry best practice.

Regional Ecosystem No. – 10.7.3

Description	**Lancewood and or Beendee low woodland with areas of Wattle, Ghost Gum, Shiny-leaved Bloodwood, Narrow-leafed Ironbark and Rusty Yellowjacket on skeletal soils on the exposed mottled zone of the plateau margins, and on shallow red earths of Tertiary plateau surfaces.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 45506ha** **PLANNING AREA REMNANT - 43656ha** **OTHER LANDS unavailable for broadscale clearing - 5433 ha - 12%** **DISTRIBUTION – Subregion - 2**
Area developed to date	**PLANNING AREA - 4%**
Conservation status	**Not of concern**
Suitability for development and production potential S5	Hard setting and stony soils not suitable for broadscale development.
Threatening processes	Thickening of all associated species.
Identifiable risk factors to consider when developing this RE	• Not presently suitable for broadscale clearing. • Conservative grazing management and pasture spelling is encouraged.

Pre and post development strategies where a demonstration site is developed	*For small demonstration sites the following management applies –* • All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • This RE ideally is locked up after development so that the area can be burnt. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. *#See notes on demonstration sites (Definition of Terms)*
Pasture, land and ecosystem monitoring by landholder if demonstration site is developed	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Max % to be developed for production and to maintain the integrity of this RE	**10 % per property for stock management purposes. (Development applies more to the Beendee component of this RE.)** **Thinning of the retention area (i.e. the other 90%.)**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	Evaluation of any demonstration areas 5 years post development. This would include issues such as productivity, habitat conservation, biodiversity, salinity and management techniques in relation to industry best practice.

Regional Ecosystem No. – 10.7.7

Description	**Low open woodland of small-leaved Tea-tree, Broom Bush, Baker's Mallee, Quinine or Wattle on plateaus and crests of gently undulating terrain with skeletal to shallow soils, usually with ironstone pea gravel on weathered ferricrete.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 20001ha** **PLANNING AREA REMNANT - 19314ha** **OTHER LANDS unavailable for broadscale clearing - 2881ha -14%** **DISTRIBUTION - Subregion - 1, 2, 3**
Area developed to date	**PLANNING AREA - 3 %**
Conservation status	**Not of concern**
Suitability for development and production potential S5	Hard setting and stony soils not suitable for broadscale development.
Threatening processes	Thickening of all associated species.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Not presently suitable for broadscale clearing. • Conservative grazing management and pasture spelling is encouraged.

Pre and post development strategies where a demonstration site is developed	*For small demonstration sites the following management applies –* • All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • This RE ideally is locked up after development so that the area can be burnt. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. # *See notes on demonstration sites (Definition of Terms)*
Pasture, land and ecosystem monitoring by landholder if demonstration site is developed	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Max % to be developed for production and to maintain the integrity of this RE	**10 % per property for stock management purposes.** **Thinning of the retention area (i.e. the other 90%.)**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	Evaluation of any demonstration areas 5 years post development. This would include issues such as productivity, habitat conservation, biodiversity, salinity and management techniques in relation to industry best practice.

Regional Ecosystem No. – 10.7.10

Description	**Whites Ironbark or Rough-leaved Bloodwood low open woodland with variable shrubby understory on low stony rises on tertiary ferricretes with spinifex dominating the ground cover.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 212989ha** **PLANNING AREA REMNANT - 212091ha** **OTHER LANDS unavailable for broadscale clearing - 5131ha - 3.23%** **DISTRIBUTION – Subregion – 1**
Area developed to date	**PLANNING AREA - 0%**
Conservation status	**Not of concern**
Suitability for development and production potential S5	Hard setting and stony soils not suitable for broadscale development.
Threatening processes	Thickening – Ironbark, currant bush, sandalwood, desert oak, wild peach, quinine and associated species.
Identifiable risk factors to consider when developing this RE	• The salinity hazard of this RE in Subregion 1 is very low due to slope, lower rainfall and depth to water. • Not presently suitable for broadscale clearing. • Conservative grazing management and pasture spelling is encouraged.

Pre and post development strategies where a demonstration site is developed	*For small demonstration sites the following management applies* • All producers will document a property management plan detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management, i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. It is particularly important to consider soil depth in relation to developing this RE. • This RE ideally is locked up after development so that the area can be burnt. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. *#See notes on demonstration sites (Definition of Terms)*
Pasture, land and ecosystem monitoring by landholder if demonstration site is developed	• Grass Check sites will be set up across this RE prior to development. • This will include monitoring regrowth, pasture composition, yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Max % to be developed for production and to maintain the integrity of this RE	**10 % per property for stock management purposes.** **Thinning of the retention area (i.e. the other 90%.)**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	Evaluation of any demonstration areas 5 years post development. This would include issues such as productivity, habitat conservation, biodiversity, salinity and management techniques in relation to industry best practice.

Regional Ecosystem No. – 10.7.11

Description	**Silver leaved Ironbark on shallow red earths of Tertiary plateau surfaces.**
Extent/Distribution	**PLANNING AREA ORIGINAL EXTENT - 41716ha** **PLANNING AREA REMNANT - 41382ha** **OTHER LANDS unavailable for broadscale clearing - 289ha - .07%** **DISTRIBUTION - Subregion - 2**
Area developed to date	**PLANNING AREA - 1%**
Conservation status	**Not of concern**
Suitability for development and production potential ***S5***	Hard setting and stony soils not suitable for broadscale development.
Threatening processes	Thickening – of all associated species and heartleaf poison bush.
Identifiable risk factors to consider when developing this RE	• Not presently suitable for broadscale clearing. • Conservative grazing management and pasture spelling is encouraged.

Pre and post development strategies where a demonstration site is developed	*For small demonstration sites the following management applies –* • All producers will document a property management plan, detailing pre and post development strategies. • Producers developing this RE need to adhere to local best practices in relation to pre and post development management i.e. fencing, waters, paddock size, cattle control and grazing management. • Development to be undertaken either by informed landholders or accredited contractors. • On soils where there is surface sealing, leaving timber on ground reduces water flow, increases infiltration and encourages pasture establishment. • It is particularly important to consider soil depth in relation to developing this RE. • This RE ideally is locked up after development so that the area can be burnt. • Improving general management like ease of mustering by developing this RE is an important factor in controlling cattle, and therefore regulating grazing pressures. • This area will be spelled post development to allow a continuous grass layer under reasonable rainfall conditions. • Ideally, landholders will aim to maintain 40% ground cover in the majority of seasons. • Accepting the cost of spelling prior to fire, and using fire when seedlings and suckers appear. *#See notes on demonstration sites (Definition of Terms)*
Pasture, land and ecosystem monitoring by landholder if demonstration site is developed	• Grass check sites will be set up across this RE prior to development. • This will include the monitoring of regrowth, pasture composition, yield, ground cover and soil surface condition. • Photos will be taken prior to development and every year after development (end of growing season – May.) • If available, fauna monitoring techniques will be used by landholders.
Max % to be developed for production and to maintain the integrity of this RE	**10 % per property for stock management purposes.** **Thinning of the retention area (i.e. the other 90%.)**
Detailed monitoring and review – in partnership between govt agencies, landholders and community	Evaluation of any demonstration areas 5 years post development. This would include issues such as productivity, habitat conservation, biodiversity, salinity and management techniques in relation to industry best practice.

ATTACHMENT B

"A POINT IN TIME"

Evaluating Change on Land Zone 5 – Lakeview Station

“A POINT IN TIME” Evaluating Change on Land Zone 5 – Lakeview Station

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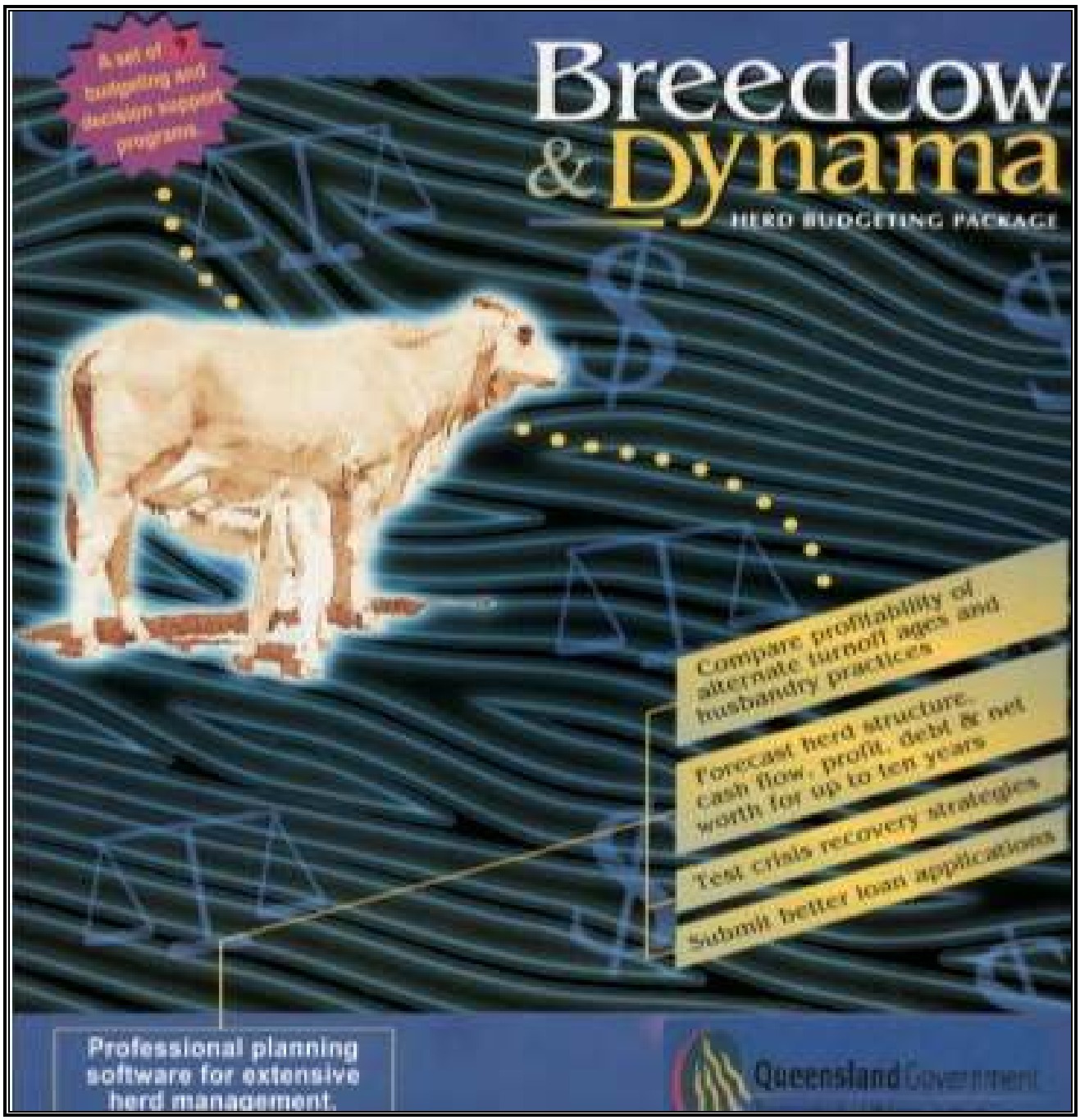
ATTACHMENT B

Background



Queensland Department of Primary Industries officers have used the Breedcow and Dynama package since 1988. Uses include herd growth projections, cash flow budgeting, financial counseling, research evaluation, analysis and improvement of herd productivity and demonstrating the impact of changed husbandry practices on herd structure, turnoff and financial outcome.

This program also has been used for risk management strategies to “test” drought destocking and restocking, to work through the consequences of disease eradication campaigns for individual producers and to implement various development scenarios in property management planning.

"A Point in Time" Evaluating Change on Land Zone 5 – Lakeview Station

Summary

DEVELOPMENT OF SILVERLEAVED AND NARROWLEAVED IRONBARK ON YELLOW EARTHS (SUBREGION 1 - 10.5.5 AND 10.5.5)

- **No Clearing Scenario (fencing and water improvements included)**

Brandings	55%
Adult equivalents	2000 (2424 head) rising to 2500 AE after 10 yrs
Female death rates	5% (>2yrs)
Male death rates	1% (>1year)
Av bullock prices	$774
Av female sale prices	$405
Bullock prices (4 to 4.5yrs)	$1.50/kg
Av Bullock weight	580kg
Cull cows	425kg
Female sales/total herd	45%

Gross margin/herd	$240338 rising to $300000 in 10 years
Gross margin/AE	$120.17

- **Clearing Scenario (fencing and water improvements included as in no clearing)**

(Expenditure – 70K/year over 5 years for initial timber treatment and regrowth control $14K/year)

Brandings	70%
Adult equivalents	4000 (4901 head) – achieved after 10 years
Female death rates	2% (>2yrs)
Male death rates	1% (>1year)
Av bullock prices	$817
Av Female sale prices	$448
Bullock prices (4 to 4.5yrs)	$1.50/kg
Av Bullock weight	610kg
Cull cows	455 to 475 kg
Female sales/total herd	48.7%

Gross margin/herd	$240338 rising to $621313 – in 10 years
Gross margin/AE	$155.33

In Summary

- **The internal rate of return on investment in timber treatment is 32%.** This means that the money invested is earning 32%.
- **The net present value is $680000.** This represents the total of all the benefits over the next 10 years in today's dollars. In other words this enterprise would be equally well off taking $680000 now or accepting the stream of benefits and costs over the next 10 years. Deficits in cash flow occur for 4 years after initial timber treatment then surpluses begin to flow through.

Information prepared by George Breddan (Lakeview), Joe Rolfe, Extension Officer, Futureprofit Rural Industry Business Services and Bill Holmes, Principal Agricultural Economist of the DPI, using the Breedcow herd model. Breedcow and Dynama spreadsheets are included, showing how the above figures were calculated, and include data sensitivity analysis.

BREEDCOW - Steady State Herd Model - Version 5.036

Devised by W.E.Holmes, QDPI, Townsville, Qld.

Name: *Lakeview - base - starting point for both scenarios*
Date: *February 2002 - 2000 AE*
File: C:\HBVISUAL\BREEDCOW\BCLKBS02.BDT

SECTION A: CALVING AND DEATH RATE ASSUMPTIONS

Cattle age start year	Weaners	1	2	3	4	5	6	7	8	9	10
Cattle age end year	1	2	3	4	5	6	7	8	9	10	11
Calves weaned/cows mated	na	0.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Female death rate	2.0%	1.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Male death rate	2.0%	1.0%	1.0%	1.0%	1.0%	1.0%	***No entries allowed for bullocks past 6 yrs of age***				

Note 1:Deaths of weaners to 1 yr are deaths from weaning to age 1 year (interpret as 12 mths or more, but less than 24).
Weaning 2 to 3 yrs is weaning % from mating at 2 yrs (interpret as 24 mths or more, but less than 36 mths),
and is % weaned from cows REMAINING AFTER OPTIONAL SALES.

SECTION B: SALE PRICES

Sale age	Weaners	1	2	3	4	5	6	7	8	9	10	11
Heifers/cows	$187	$301	$387	$424	$419	$419	$419	$419	$419	$419	$419	$419
Steers/bullocks	$216	$348	$490	$632	$774	$0	$0	***No entries allowed for bullocks past 6 yrs of age***				

Note 2:All prices are to be net of selling and freight costs and without GST.
Weaners can mean 5-11 months, 1 can mean 12-23 months etc.

SECTION C: STEER AND BULLOCK HERD STRUCTURE

Maximum male turnoff age (integer) ..... 3 ***(Enter 0 for weaners)***

Steer or bullock age	0	1	2	3	4	5	6
Number available at start year	279	274	271	268	0	0	0
Number reserved as bulls	0	0	0				
Optional sales %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	na
Transfers to bull herd	na	na	0				
Sales at each age	0	0	0	268	0	0	0

Total steers and bullocks sold ..... 268 Average price = $632.25

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SECTION D: BULL REQUIREMENTS

Bull/cow ratio ..... 3.00% Bulls required = 30

Bulls purchased/yr. % of total bulls	20.00%	6	@ price	$1,500
BYO bulls kept/yr. % of total bulls	0.00%	0	@ value	$490
Bulls sold/yr	***Calculated***	5	@ price	$916
Bull deaths	2.00%	1		

Average value per head of bulls on hand	$1,223
Net bull replacement cost (total)	$4,117
Net bull replacement cost per calf weaned	$7.37

SECTION E: FEMALE HERD STRUCTURE

Weaner heifers to be retained	279
Age at first joining (1 or 2 yrs)	2
Cow culling age (integer, max 11)	10
Required herd size (AE)	2000
Surplus weaner heifers sold	0

(Enter 279.36 to give required number of AEs)

Cow age start year	1	2	3	4	5	6	7	8	9	10	11
Cow age end year	2	3	4	5	6	7	8	9	10	11	12
Cows/heifers available start year	274	271	168	152	137	124	111	101	91	82	0
Optional sales % start year cows	0.00%	34.73%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	na
Cows & heifers sold start year	0	94	8	8	7	6	6	5	5	82	0
Cows joined in each age group	0	177	160	144	130	117	106	96	86	0	na
Calves weaned from each group	0	97	88	79	72	65	58	53	47	0	na

Cows and heifers sold	220	Weaner heifer cull	0.00%	Average female price ..	$405.17
		Female/total sales	45.08%		
		Turnoff/total herd	20.38%		
Cows and heifers mated	1016	Weaners/cows mated ..	55.00%		
Calves weaned	559	Weaners/cows surviving	57.89%		
Breeder deaths	51	Breeder deaths	5.00%		

Note 3: If weaner heifer cull is negative, reduce optional sales, or increase cow culling age.

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SECTION F: TOTAL CATTLE AND ADULT EQUIVALENTS

Age at Start of Rating Period	Number Carried	AE/Beast (Specify)	Total AE For Group
Extra for cows weaning a calf	na	0.35	196
Weaners 5 months	559	0.48	270
Heifers 1 yr but less than 2	274	0.66	181
Heifers 2 yrs but less than 3	177	0.80	142
Cows 3 yrs plus	839	0.88	738
Steers 1 yr but less than 2	274	0.69	190
Steers 2 yrs but less than 3	271	0.89	241
Bullocks 3 yrs but less than 4	0	1.09	0
Bullocks 4 yrs but less than 5	0	1.29	0
Bullocks 5 years plus	0	1.46	0
Bulls all ages	30	1.43	44

Total number carried	2424	Total AE	2000

Note: Number carried equals number at start of year, less sales.

SECTION G: CATTLE ENTERPRISE COSTS

(Calculated on cattle retained for full year only - no costs attributed to sale cattle. Do not add GST.)

Cattle husbandry costs per head *(applied at start of year)*	$/Weaner to 1 yr.	$/Heifer or cow aged: 1-2yrs	2-3yrs	3yrs +	$/Steer or bullock aged: 1-2yrs	2-3yrs	3-4yrs	4-5yrs	5yrs+	$/Bull .....
Dip, drench, vaccine etc.	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Fodder, licks, supplements etc	$4.00	$6.00	$8.00	$8.00	$0.00	$0.00	$0.00	$0.00	$0.00	$8.00
Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total husbandry cost/hd for group	$4.90	$6.90	$8.90	$8.90	$0.90	$0.90	$0.90	$0.90	$0.90	$8.90

SECTION H: CALCULATION OF GROSS MARGINS AND HERD VALUE

	$/Herd	$/Beast	$/A.E.
Net cattle sales	$258,885	$106.82	$129.44
Husbandry costs .	$14,430	$5.95	$7.21
Bull replacement .	$4,117	$1.70	$2.06
Gross Margin	$240,338	$99.16	$120.17
GM less interest ..	$152,269	$62.83	$76.13

Capital Value of Herd (after sales)		$ Total
Value of cows and heifers		$554,913
Value of steers and bullocks		$288,498
Value of bulls 2 years and older		$37,284
Total		$880,696
Imputed interest on herd capital @	10.00%	$88,070

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BREEDCOW - Steady State Herd Model - Version 5.036

Devised by W.E.Holmes, QDPI, Townsville, Qld.

Name: *Lakeview - base plus extra carrying from more waters and fences*
Date: *February 2002*
File: C:\HBVISUAL\BREEDCOW\BCLKNO02.BDT

SECTION A: CALVING AND DEATH RATE ASSUMPTIONS

Cattle age start year	Weaners	1	2	3	4	5	6	7	8	9	10
Cattle age end year	1	2	3	4	5	6	7	8	9	10	11
Calves weaned/cows mated	na	0.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Female death rate	2.0%	1.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Male death rate	2.0%	1.0%	1.0%	1.0%	1.0%	1.0%	*No entries allowed for bullocks past 6 yrs of age*				

Note 1: ***Deaths of weaners to 1 yr are deaths from weaning to age 1 year (interpret as 12 mths or more, but less than 24).***
Weaning 2 to 3 yrs is weaning % from mating at 2 yrs (interpret as 24 mths or more, but less than 36 mths),
and is % weaned from cows REMAINING AFTER OPTIONAL SALES.

SECTION B: SALE PRICES

Sale age	Weaners	1	2	3	4	5	6	7	8	9	10	11
Heifers/cows	$187	$301	$387	$424	$419	$419	$419	$419	$419	$419	$419	$419
Steers/bullocks	$216	$348	$490	$632	$774	$0	$0	*No entries allowed for bullocks past 6 yrs of age*				

Note 2: ***All prices are to be net of selling and freight costs and without GST.***
Weaners can mean 5-11 months, 1 can mean 12-23 months etc.

SECTION C: STEER AND BULLOCK HERD STRUCTURE

Maximum male turnoff age (integer) ..... 3 ***(Enter 0 for weaners)***

Steer or bullock age	0	1	2	3	4	5	6
Number available at start year	349	342	339	335	0	0	0
Number reserved as bulls	0	0	0				
Optional sales %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	na
Transfers to bull herd	na	na	0				
Sales at each age	0	0	0	335	0	0	0

Total steers and bullocks sold ..... 335 Average price = $632.25

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SECTION D: BULL REQUIREMENTS

Bull/cow ratio ..... 3.00% Bulls required = 38

Bulls purchased/yr. % of total bulls	20.00%	8	@ price	$1,500
BYO bulls kept/yr. % of total bulls	0.00%	0	@ value	$490
Bulls sold/yr	***Calculated***	7	@ price	$916
Bull deaths	2.00%	1		

Average value per head of bulls on hand	$1,223
Net bull replacement cost (total)	$5,147
Net bull replacement cost per calf weaned	$7.37

SECTION E: FEMALE HERD STRUCTURE

Weaner heifers to be retained	349
Age at first joining (1 or 2 yrs)	2
Cow culling age (integer, max 11)	10
Required herd size (AE)	2500
Surplus weaner heifers sold	0

(Enter 349.20 to give required number of AEs)

Cow age start year	1	2	3	4	5	6	7	8	9	10	11
Cow age end year	2	3	4	5	6	7	8	9	10	11	12
Cows/heifers available start year	342	339	210	190	171	154	139	126	114	102	0
Optional sales % start year cows	0.00%	34.73%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	na
Cows & heifers sold start year	0	118	11	9	9	8	7	6	6	102	0
Cows joined in each age group	0	221	200	180	163	147	132	119	108	0	na
Calves weaned from each group	0	122	110	99	89	81	73	66	59	0	na

Cows and heifers sold	275	Weaner heifer cull	0.00%	Average female price ..	$405.17
		Female/total sales	45.08%		
		Turnoff/total herd	20.38%		
Cows and heifers mated	1270	Weaners/cows mated ..	55.00%		
Calves weaned	698	Weaners/cows surviving	57.89%		
Breeder deaths	63	Breeder deaths	5.00%		

Note 3: If weaner heifer cull is negative, reduce optional sales, or increase cow culling age.

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SECTION F: TOTAL CATTLE AND ADULT EQUIVALENTS

Age at Start of Rating Period	Number Carried	AE/Beast (Specify)	Total AE For Group
Extra for cows weaning a calf	na	0.35	244
Weaners 5 months	698	0.48	338
Heifers 1 yr but less than 2	342	0.66	226
Heifers 2 yrs but less than 3	221	0.80	177
Cows 3 yrs plus	1049	0.88	922
Steers 1 yr but less than 2	342	0.69	237
Steers 2 yrs but less than 3	339	0.89	302
Bullocks 3 yrs but less than 4	0	1.09	0
Bullocks 4 yrs but less than 5	0	1.29	0
Bullocks 5 years plus	0	1.46	0
Bulls all ages	38	1.43	54

Total number carried	3030	Total AE	2500

Note: Number carried equals number at start of year, less sales.

SECTION G: CATTLE ENTERPRISE COSTS

(Calculated on cattle retained for full year only - no costs attributed to sale cattle. Do not add GST.)

Cattle husbandry costs per head *(applied at start of year)*	$/Weaner to 1 yr.	$/Heifer or cow aged: 1-2yrs	2-3yrs	3yrs +	$/Steer or bullock aged: 1-2yrs	2-3yrs	3-4yrs	4-5yrs	5yrs+	$/Bull .....
Dip, drench, vaccine etc.	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Fodder, licks, supplements etc	$4.00	$6.00	$8.00	$8.00	$0.00	$0.00	$0.00	$0.00	$0.00	$8.00
Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total husbandry cost/hd for group	$4.90	$6.90	$8.90	$8.90	$0.90	$0.90	$0.90	$0.90	$0.90	$8.90

SECTION H: CALCULATION OF GROSS MARGINS AND HERD VALUE

	$/Herd	$/Beast	$/A.E.
Net cattle sales	$323,606	$106.82	$129.44
Husbandry costs .	$18,037	$5.95	$7.21
Bull replacement .	$5,147	$1.70	$2.06
Gross Margin	$300,423	$99.16	$120.17
GM less interest ..	$190,336	$62.83	$76.13

Capital Value of Herd (after sales)		$ Total
Value of cows and heifers		$693,642
Value of steers and bullocks		$360,622
Value of bulls 2 years and older		$46,605
Total		$1,100,870
Imputed interest on herd capital @	10.00%	$110,087

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BREEDCOW - Steady State Herd Model - Version 5.036

Devised by W.E.Holmes, QDPI, Townsville, Qld.

Name: *Lakeview - with clearing - endpoint for clearing scenario*
Date: *February 2002*
File: C:\HBVISUAL\BREEDCOW\BCLKCL02.BDT

SECTION A: CALVING AND DEATH RATE ASSUMPTIONS

Cattle age start year	Weaners	1	2	3	4	5	6	7	8	9	10
Cattle age end year	1	2	3	4	5	6	7	8	9	10	11
Calves weaned/cows mated	na	0.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Female death rate	2.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Male death rate	2.0%	1.0%	1.0%	1.0%	1.0%	1.0%	*No entries allowed for bullocks past 6 yrs of age*				

Note 1: ***Deaths of weaners to 1 yr are deaths from weaning to age 1 year (interpret as 12 mths or more, but less than 24).***
Weaning 2 to 3 yrs is weaning % from mating at 2 yrs (interpret as 24 mths or more, but less than 36 mths),
and is % weaned from cows REMAINING AFTER OPTIONAL SALES.

SECTION B: SALE PRICES

Sale age	Weaners	1	2	3	4	5	6	7	8	9	10	11
Heifers/cows	$225	$338	$424	$461	$447	$476	$476	$476	$476	$476	$476	$476
Steers/bullocks	$260	$391	$533	$675	$817	$0	$0	*No entries allowed for bullocks past 6 yrs of age*				

Note 2: ***All prices are to be net of selling and freight costs and without GST.***
Weaners can mean 5-11 months, 1 can mean 12-23 months etc.

SECTION C: STEER AND BULLOCK HERD STRUCTURE

Maximum male turnoff age (integer) ..... 3 ***(Enter 0 for weaners)***

Steer or bullock age	0	1	2	3	4	5	6
Number available at start year	625	613	607	601	0	0	0
Number reserved as bulls	0	0	0				
Optional sales %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	na
Transfers to bull herd	na	na	0				
Sales at each age	0	0	0	601	0	0	0

Total steers and bullocks sold ..... 601 Average price = $675.00

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SECTION D: BULL REQUIREMENTS

Bull/cow ratio ..... 1.70% Bulls required = 30

Bulls purchased/yr. % of total bulls	20.00%	6	@ price	$1,500
BYO bulls kept/yr. % of total bulls	0.00%	0	@ value	$533
Bulls sold/yr	***Calculated***	5	@ price	$916
Bull deaths	2.00%	1		

Average value per head of bulls on hand	$1,223
Net bull replacement cost (total)	$4,104
Net bull replacement cost per calf weaned	$3.28

SECTION E: FEMALE HERD STRUCTURE

Weaner heifers to be retained	625
Age at first joining (1 or 2 yrs)	2
Cow culling age (integer, max 11)	10
Required herd size (AE)	4000
Surplus weaner heifers sold	0

(Enter 625.44 to give required number of AEs)

Cow age start year	1	2	3	4	5	6	7	8	9	10	11
Cow age end year	2	3	4	5	6	7	8	9	10	11	12
Cows/heifers available start year	613	607	326	288	254	224	197	174	153	135	0
Optional sales % start year cows	0.00%	45.17%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	na
Cows & heifers sold start year	0	274	33	29	25	22	20	17	15	135	0
Cows joined in each age group	0	333	293	259	228	201	178	157	138	0	na
Calves weaned from each group	0	233	205	181	160	141	124	110	97	0	na

Cows and heifers sold	571	Weaner heifer cull	0.00%	Average female price	$448.43
		Female/total sales	48.73%		
		Turnoff/total herd	24.02%		
Cows and heifers mated	1787	Weaners/cows mated	70.00%		
Calves weaned	1251	Weaners/cows surviving	71.43%		
Breeder deaths	36	Breeder deaths	2.00%		

Note 3: If weaner heifer cull is negative, reduce optional sales, or increase cow culling age.

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SECTION F: TOTAL CATTLE AND ADULT EQUIVALENTS

Age at Start of Rating Period	Number Carried	AE/Beast (Specify)	Total AE For Group
Extra for cows weaning a calf	na	0.35	438
Weaners 5 months	1251	0.48	605
Heifers 1 yr but less than 2	613	0.66	404
Heifers 2 yrs but less than 3	333	0.80	267
Cows 3 yrs plus	1454	0.88	1278
Steers 1 yr but less than 2	613	0.69	424
Steers 2 yrs but less than 3	607	0.89	540
Bullocks 3 yrs but less than 4	0	1.09	0
Bullocks 4 yrs but less than 5	0	1.29	0
Bullocks 5 years plus	0	1.46	0
Bulls all ages	30	1.43	43

Total number carried	4901	Total AE	4000

Note: Number carried equals number at start of year, less sales.

SECTION G: CATTLE ENTERPRISE COSTS

(Calculated on cattle retained for full year only - no costs attributed to sale cattle. Do not add GST.)

Cattle husbandry costs per head *(applied at start of year)*	$/Weaner to 1 yr.	$/Heifer or cow aged: 1-2yrs	2-3yrs	3yrs +	$/Steer or bullock aged: 1-2yrs	2-3yrs	3-4yrs	4-5yrs	5yrs+	$/Bull .....
Dip, drench, vaccine etc.	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Fodder, licks, supplements etc	$4.00	$6.00	$8.00	$8.00	$6.00	$8.00	$0.00	$0.00	$0.00	$8.00
Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total husbandry cost/hd for group	$4.90	$6.90	$8.90	$8.90	$6.90	$8.90	$0.90	$0.90	$0.90	$8.90

SECTION H: CALCULATION OF GROSS MARGINS AND HERD VALUE

	$/Herd	$/Beast	$/A.E.
Net cattle sales	$661,581	$134.99	$165.40
Husbandry costs .	$36,163	$7.38	$9.04
Bull replacement .	$4,104	$0.84	$1.03
Gross Margin	$621,313	$126.78	$155.33
GM less interest ..	$428,211	$87.37	$107.05

Capital Value of Herd (after sales)		$ Total
Value of cows and heifers		$1,168,375
Value of steers and bullocks		$725,481
Value of bulls 2 years and older		$37,165
Total		$1,931,021
Imputed interest on herd capital @	10.00%	$193,102

Double click here for Layout with GM in lower window

DYNAMA - Multi Year Herd Model - Version 5.036a

Software devised by W.E.Holmes, QDPI, Townsville, Qld.

Name: *Lakeview - with clearing - increase from 2000 to 4000 AE*
Date: *February 2002*
File: C:\HBVISUAL\DYNAMA\DNLKCL02.BDT

Enter start month-year	Jan-2002
First year starts	01-Jan-2002
First year ends	31-Dec-2002

Three letters, minus (-), and four digits.
May also use the form 01-Jul-2002

Re Tables 1-3: Year 1 data in Tables 1-3 copies to later years but may be overridden. Year labels refer to end of budget year. Label "2002" can refer to calendar year 2002 or financial year 2001-2002.

DATA TABLE 1 - FEMALE DEATH RATES ***(Calculated on opening numbers plus purchases, less spays and sales)***

Start of Year — Expected annual death rates (%) each year:

Description	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Heifer weaners .	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Heifers 1 year .	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Heifers 2 years	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cows 3 years ...	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cows 4 years ...	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cows 5 years ...	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cows 6 years ...	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cows 7 years ...	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cows 8 years ...	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cows 9 years ...	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Cows 10 yrs plus	5.0%	4.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Spayed cows	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

DATA TABLE 2 - MALE DEATH RATES ***(Calculated on opening numbers plus purchases less sales)***

Start of Year — Expected death rates (%) each year:

Description	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Steer weaners ..	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Steers 1 year ..	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Steers 2 years .	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Bullocks 3 yrs .	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Bullocks 4 yrs .	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Bullocks 5 yrs +	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

DATA TABLE 3 - WEANING RATES ***(Double click in green drilldown cells to choose method of calculating calves weaned)***

Mating Age Group — Expected weaning rates (%) each year:

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
	'New calves' calculated on opening breeders + purchases - spays - sales					*Double click here to change female base for calculating "new calves"*				
Cows mated 1 yr	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cows mated 2 yrs	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Cows mated 3 yrs	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Cows mated 4 yrs	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Cows mated 5 yrs	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Cows mated 6 yrs	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Cows mated 7 yrs	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Cows mated 8 yrs	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Cows mated 9 yrs	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Cows mated 10 +	55.0%	60.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%

Re Tables 4-6: Data from yr 1 of Tables 4-6 copies to later years but may be overwritten. Year labels refer to the end of the budget year in which animals are sold, e.g. prices for financial year 2000 will cover animals sold from July 1999 to June 2000.

DATA TABLE 4 - PURCHASE PRICES ***(Include freight and buying costs, but not GST.)***

Age/Sex Group	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mxd)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifer weaners .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifers 1 year .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifers 2 years	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cows 3 yrs plus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steer calves ...	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steers 1 year ..	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steers 2 years .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 3 yrs .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 4 yrs .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bulls	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500

DATA TABLE 5A - FEMALE SALE PRICES ***(Net of selling and freight costs. Do not include GST.)***

Description	Expected sale price each year:									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mxd)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifer weaners .	$187	$199	$212	$225	$225	$225	$225	$225	$225	$225
Heifers 1 year .	$301	$313	$325	$338	$338	$338	$338	$338	$338	$338
Heifers 2 years	$387	$399	$411	$424	$424	$424	$424	$424	$424	$424
Cows 3 years ...	$424	$448	$448	$461	$461	$461	$461	$461	$461	$461
Cows 4 years ...	$419	$436	$447	$447	$447	$447	$447	$447	$447	$447
Cows 5 years ...	$419	$430	$441	$459	$476	$476	$476	$476	$476	$476
Cows 6 years ...	$419	$436	$447	$459	$470	$476	$476	$476	$476	$476
Cows 7 years ...	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Cows 8 years ...	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Cows 9 years ...	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Cows 10 years ..	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Cows 11 yrs plus	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Spayed cows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

DATA TABLE 6A - MALE SALE PRICES ***(Net of selling and freight costs. Do not include GST.)***

Description	Expected sale price each year:									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Steer weaners ..	$216	$230	$245	$260	$260	$260	$260	$260	$260	$260
Steers 1 year ..	$348	$370	$391	$391	$391	$391	$391	$391	$391	$391
Steers 2 years .	$490	$512	$533	$533	$533	$533	$533	$533	$533	$533
Bullocks 3 yrs .	$632	$654	$675	$675	$675	$675	$675	$675	$675	$675
Bullocks 4 yrs .	$780	$802	$823	$823	$823	$823	$823	$823	$823	$823
Bullocks 5 yrs .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 6 yrs +	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Herd bulls	$916	$916	$916	$916	$916	$916	$916	$916	$916	$916

Re Table 7: New calves may be calculated on opening cows, plus purchases, less sales and spays, or simply on opening breeder numbers. Double click in green drilldown cells to select method.

HERD TABLE 7 **HERD GROWTH, TRANSACTIONS AND CARRYOVERS** *To check if closing new calves = AutoSales target, press F12 key*

Start of Year	01-Jan-2002				31-Dec-2002	01-Jan-2003				31-Dec-2003
Description	Start Year (Enter No)	Purch (Enter)	Spay (Enter)	Sell (Enter)	Closing Numbers	Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	Closing Numbers
	' New calves' calculated on opening breeders + purchases - spays - sales					Double click here to change female base for calculating "new calves"				
New calves	na	0	na	0	559	na	0	na	0	693
Heifer weaners .	279	0	0	0	273	280	0	0	0	274
Heifers 1 yr ...	274	0	0	0	271	273	0	0	0	270
Heifers 2 yrs ..	271	0	0	94	168	271	0	0	0	260
Cows 3 yrs	168	0	0	8	152	168	0	0	0	161
Cows 4 yrs	152	0	0	8	137	152	0	0	0	146
Cows 5 yrs	137	0	0	7	124	137	0	0	0	132
Cows 6 yrs	124	0	0	6	112	124	0	0	0	119
Cows 7 yrs	111	0	0	6	100	112	0	0	0	108
Cows 8 yrs	101	0	0	5	91	100	0	0	0	96
Cows 9 yrs	91	0	0	5	82	91	0	0	0	87
Cows 10 yrs	82	0	0	82	0	82	0	0	82	0
Cows 11 yrs plus	0	0	0	0	0	0	0	0	0	0
Spayed cows	0	na	na	0	0	0	na	na	0	0
Steer weaners ..	279	0	na	0	273	280	0	na	0	274
Steers 1 yr old	274	0	na	0	271	273	0	na	0	270
Steers 2 yrs ...	271	0	na	0	268	271	0	na	0	268
Bullocks 3 yrs .	268	0	na	268	0	268	0	na	268	0
Bullocks 4 yrs .	0	0	na	0	0	0	0	na	0	0
Bullocks 5 yrs .	0	na	na	0	0	0	na	na	0	0
Bullocks 6 yrs +	0	na	na	0	0	0	na	na	0	0
Herd bulls	30	6	na	6	29	29	7	na	1	34
BYO bulls 2 yrs	0	na	na	na	na	0	na	na	na	na
Total Cattle ...	2912	6	0	495	2910	2910	7	0	351	3192
Total Adults ...	2354	6	0	495	2351	2351	7	0	351	2499

Double click here for layout with outcomes

Refers to this year's mating ONLY ====>	Cows sold or spayed after mating	0	Cows sold or spayed after mating	0
Use overrides only if mating for ===>	Cows mated and kept to calve	1016	Cows mated and kept to calve	1155
this year's calves is in previous yr ===>	Total mated for "new calves" produced	1016	Total mated for "new calves" produced	1155
	Bulls required for this year's mating	30	Bulls required for this year's mating	35
Review override values following	Weaning rate on cows kept	55.02%	Weaning rate on cows kept	60.00%
any change to breeder entries	Weaning rate on all cows mated	54.53%	Weaning rate on all cows mated	60.00%
in current or previous years.	Bull/cow ratio	3.00%	Bull/cow ratio	3.00%
	Minimum purchase % of bulls required	20.00%	Minimum purchase % of bulls required	20.00%
Bull requirements are calculated for	BYO retention % bulls required	0.00%	BYO retention % bulls required	0.00%
the current year's MATING, which is	Bull death rate	2.00%	Bull death rate	2.00%
not necessarily for this year's calving.	Closing new calves % female	50.00%	Closing new calves % female	50.00%

Herd Summary ...	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total AE carried	1998	2167	2433	2783	3204	3511	3699	3802	3848	3862
Total sales # ..	495	351	358	368	426	662	855	989	1073	1115
Total purchase #	6	7	8	9	9	10	10	10	10	10
Total new calves	559	693	904	999	1107	1168	1196	1198	1198	1198
Total deaths # .	72	67	62	56	61	71	74	76	77	77
Net $ sales	$264,494	$211,817	$222,548	$228,320	$255,445	$376,389	$487,049	$557,498	$606,313	$631,146
Net $ purchases	$9,000	$10,500	$12,000	$13,500	$13,500	$15,000	$15,000	$15,000	$15,000	$15,000

HERD TABLE 7

Start of Year / Description	01-Jan-2004 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2004 Closing Numbers	01-Jan-2005 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2005 Closing Numbers	01-Jan-2006 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2006 Closing Numbers
New calves	na	0	na	0	904	na	0	na	0	999	na	0	na	0	1107
Heifer weaners .	346	0	0	0	340	452	0	0	0	443	500	0	0	0	490
Heifers 1 yr ...	274	0	0	0	271	340	0	0	0	337	443	0	0	0	439
Heifers 2 yrs ..	270	0	0	0	262	271	0	0	0	266	337	0	0	18	313
Cows 3 yrs	260	0	0	0	252	262	0	0	0	257	266	0	0	0	261
Cows 4 yrs	161	0	0	0	156	252	0	0	4	243	257	0	0	9	243
Cows 5 yrs	146	0	0	0	142	156	0	0	0	153	243	0	0	24	215
Cows 6 yrs	132	0	0	0	128	142	0	0	0	139	153	0	0	0	150
Cows 7 yrs	119	0	0	0	115	128	0	0	0	125	139	0	0	0	136
Cows 8 yrs	108	0	0	0	105	115	0	0	0	113	125	0	0	0	123
Cows 9 yrs	96	0	0	0	93	105	0	0	0	103	113	0	0	0	111
Cows 10 yrs	87	0	0	87	0	93	0	0	93	0	103	0	0	103	0
Cows 11 yrs plus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spayed cows	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Steer weaners ..	346	0	na	0	340	452	0	na	0	443	500	0	na	0	490
Steers 1 yr old	274	0	na	0	271	340	0	na	0	337	443	0	na	0	439
Steers 2 yrs ...	270	0	na	0	267	271	0	na	0	268	337	0	na	0	334
Bullocks 3 yrs .	268	0	na	268	0	267	0	na	267	0	268	0	na	268	0
Bullocks 4 yrs .	0	0	na	0	0	0	0	na	0	0	0	0	na	0	0
Bullocks 5 yrs .	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Bullocks 6 yrs +	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Herd bulls	34	8	na	3	38	38	9	na	4	42	42	9	na	4	46
BYO bulls 2 yrs	0	na	na	na	na	0	na	na	na	na	0	na	na	na	na
Total Cattle ...	3192	8	0	358	3684	3684	9	0	368	4268	4268	9	0	426	4897
Total Adults ...	2499	8	0	358	2780	2780	9	0	368	3269	3269	9	0	426	3790

Refers to this year' s mating ONLY
Use overrides only if mating for this year' s calves is in previous yr

Review override values following any change to breeder entries in current or previous years.

Bull requirements are calculated fo the current year' s MATING, which not necessarily for this year' s calv

	01-Jan-2004	01-Jan-2005	01-Jan-2006
Cows sold or spayed after mating	0	0	0
Cows mated and kept to calve	1292	1427	1582
Total mated for "new calves" produced	1292	1427	1582
Bulls required for this year' s mating	39	43	47
Weaning rate on cows kept	69.97%	70.01%	69.97%
Weaning rate on all cows mated	69.97%	70.01%	69.97%
Bull/cow ratio	3.00%	3.00%	3.00%
Minimum purchase % of bulls required	20.00%	20.00%	20.00%
BYO retention % bulls required	0.00%	0.00%	0.00%
Bull death rate	2.00%	2.00%	2.00%
Closing new calves % female	50.00%	50.00%	50.00%

HERD TABLE 7

Start of Year / Description	01-Jan-2007 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2007 Closing Numbers	01-Jan-2008 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2008 Closing Numbers	01-Jan-2009 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2009 Closing Numbers
New calves	na	0	na	0	1168	na	0	na	0	1196	na	0	na	0	1198
Heifer weaners .	554	0	0	0	542	584	0	0	0	572	598	0	0	0	586
Heifers 1 yr ...	490	0	0	0	485	542	0	0	0	537	572	0	0	0	566
Heifers 2 yrs ..	439	0	0	120	313	485	0	0	166	313	537	0	0	218	313
Cows 3 yrs	313	0	0	32	275	313	0	0	32	275	313	0	0	32	275
Cows 4 yrs	261	0	0	13	243	275	0	0	27	243	275	0	0	27	243
Cows 5 yrs	243	0	0	24	215	243	0	0	24	215	243	0	0	24	215
Cows 6 yrs	215	0	0	22	189	215	0	0	22	189	215	0	0	22	189
Cows 7 yrs	150	0	0	0	147	189	0	0	19	167	189	0	0	19	167
Cows 8 yrs	136	0	0	0	133	147	0	0	0	144	167	0	0	17	147
Cows 9 yrs	123	0	0	0	121	133	0	0	1	129	144	0	0	12	129
Cows 10 yrs	111	0	0	111	0	121	0	0	121	0	129	0	0	129	0
Cows 11 yrs plus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spayed cows	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Steer weaners ..	554	0	na	0	542	584	0	na	0	572	598	0	na	0	586
Steers 1 yr old	490	0	na	0	485	542	0	na	0	537	572	0	na	0	566
Steers 2 yrs ...	439	0	na	0	435	485	0	na	0	480	537	0	na	0	532
Bullocks 3 yrs .	334	0	na	334	0	435	0	na	435	0	480	0	na	480	0
Bullocks 4 yrs .	0	0	na	0	0	0	0	na	0	0	0	0	na	0	0
Bullocks 5 yrs .	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Bullocks 6 yrs +	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Herd bulls	46	10	na	6	49	49	10	na	8	50	50	10	na	9	50
BYO bulls 2 yrs	0	na	na	na	na	0	na	na	na	na	0	na	na	na	na
Total Cattle ...	4897	10	0	662	5342	5342	10	0	855	5619	5619	10	0	989	5762
Total Adults ...	3790	10	0	662	4174	4174	10	0	855	4423	4423	10	0	989	4564

Refers to this year' s mating ONLY
Use overrides only if mating for this year' s calves is in previous yr

Review override values following any change to breeder entries in current or previous years.

Bull requirements are calculated fo the current year' s MATING, which not necessarily for this year' s calv

Cows sold or spayed after mating	0	0	0
Cows mated and kept to calve	1669	1709	1712
Total mated for "new calves" produced	1669	1709	1712
Bulls required for this year' s mating	50	51	51
Weaning rate on cows kept	69.98%	69.98%	69.98%
Weaning rate on all cows mated	69.98%	69.92%	69.28%
Bull/cow ratio	3.00%	3.00%	3.00%
Minimum purchase % of bulls required	20.00%	20.00%	20.00%
BYO retention % bulls required	0.00%	0.00%	0.00%
Bull death rate	2.00%	2.00%	2.00%
Closing new calves % female	50.00%	50.00%	50.00%

HERD TABLE 7

Start of Year / Description	01-Jan-2010 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2010 Closing Numbers	01-Jan-2011 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2011 Closing Numbers	*** AE Ratings per Head *** Carried Whole Yr	Carried to Sale	**** AUTOSALES INPUT **** Sales % of Opening No	Preferred Residual
New calves	na	0	na	0	1198	na	0	na	0	1198	0.35	na	New Calves	1285
Heifer weaners .	599	0	0	0	587	599	0	0	0	587	0.48	0.00	0.00%	642
Heifers 1 yr ...	586	0	0	0	580	587	0	0	0	581	0.66	0.00	0.00%	630
Heifers 2 yrs ..	566	0	0	247	313	580	0	0	261	313	0.80	0.00	0.00%	319
Cows 3 yrs	313	0	0	32	275	313	0	0	32	275	0.88	0.00	0.00%	281
Cows 4 yrs	275	0	0	27	243	275	0	0	27	243	0.88	0.00	0.00%	248
Cows 5 yrs	243	0	0	24	215	243	0	0	24	215	0.88	0.00	0.00%	219
Cows 6 yrs	215	0	0	22	189	215	0	0	22	189	0.88	0.00	0.00%	193
Cows 7 yrs	189	0	0	19	167	189	0	0	19	167	0.88	0.00	0.00%	170
Cows 8 yrs	167	0	0	17	147	167	0	0	17	147	0.88	0.00	0.00%	150
Cows 9 yrs	147	0	0	15	129	147	0	0	15	129	0.88	0.00	0.00%	132
Cows 10 yrs	129	0	0	129	0	129	0	0	129	0	0.88	0.00	100.00%	0
Cows 11 yrs plus	0	0	0	0	0	0	0	0	0	0	0.88	0.00	na	na
Spayed cows	0	na	na	0	0	0	na	na	0	0	1.00	0.00	na	na
Steer weaners ..	599	0	na	0	587	599	0	na	0	587	0.48	0.00	0.00%	0
Steers 1 yr old	586	0	na	0	580	587	0	na	0	581	0.69	0.00	0.00%	0
Steers 2 yrs ...	566	0	na	0	560	580	0	na	0	574	0.89	0.00	0.00%	0
Bullocks 3 yrs .	532	0	na	532	0	560	0	na	560	0	1.09	0.00	100.00%	0
Bullocks 4 yrs .	0	0	na	0	0	0	0	na	0	0	1.29	0.00	100.00%	0
Bullocks 5 yrs .	0	na	na	0	0	0	na	na	0	0	1.46	0.00	100.00%	0
Bullocks 6 yrs +	0	na	na	0	0	0	na	na	0	0	1.46	0.00	na	na
Herd bulls	50	10	na	9	50	50	10	na	9	50	1.43	0.00	na	na
BYO bulls 2 yrs	0	na	na	na	na	0	na	na	na	na	na	na	na	na
Total Cattle ...	5762	10	0	1073	5820	5820	10	0	1115	5836				
Total Adults ...	4564	10	0	1073	4622	4622	10	0	1115	4638				

Default sales will be whichever is more, % of opening number, or sales required to reduce the group to the preferred residual. Sales % is worked on opening number plus purchases less spays.

For example, if opening number is 500 head, % sales are 10%, and preferred residual is 400, sales will be 100, which is the greater of 50 (10% of 500) and 100.

If opening number is 500, % sales are 10%, and preferred residual is 480, sales will be 50, since 50 is more than 20 (500-480).

If both % sales and preferred residual are zero, i.e. no entries, sales will be zero. Therefore, to sell all of one class, enter 100%, rather than preferred residual 0.

Sales figures generated for each year by the sales formulas may be overridden by numeric entries.

Refers to this year' s mating ONL
Use overrides only if mating for
this year' s calves is in previous

Review override values following
any change to breeder entries
in current or previous years.

Bull requirements are calculated
the current year' s MATING, whi
not necessarily for this year' s ca

Cows sold or spayed after mating	0	Cows sold or spayed after mating	0
Cows mated and kept to calve	1712	Cows mated and kept to calve	1712
Total mated for "new calves" produced	1712	Total mated for "new calves" produced	1712
Bulls required for this year' s mating	51	Bulls required for this year' s mating	51
Weaning rate on cows kept	69.98%	Weaning rate on cows kept	69.98%
Weaning rate on all cows mated	69.10%	Weaning rate on all cows mated	69.10%
Bull/cow ratio	3.00%	Bull/cow ratio	3.00%
Minimum purchase % of bulls required	20.00%	Minimum purchase % of bulls required	20.00%
BYO retention % bulls required	0.00%	BYO retention % bulls required	0.00%
Bull death rate	2.00%	Bull death rate	2.00%
Closing new calves % female	50.00%	Closing new calves % female	50.00%

COSTS TABLE 8 - VARIABLE AND FIXED COSTS ***(Do not include GST in individual categories)***

Variable Cost/Hd	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Per weaner	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90
Per heifer 1 yr	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90
Per heifer 2 yrs	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90
Per cow 3 yrs +	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90
Per spayed cow .	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Per steer 1 yr .	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per steer 2 yrs	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per bullock 3 yr	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per bullock 4 yr	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per bullock 5 +	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per herd bull ..	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90
Total Herd VC ..	$14,429	$15,700	$17,620	$20,407	$22,915	$24,941	$26,054	$26,499	$26,644	$26,665

(Do not include GST in individual categories)

Fixed Costs	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
VC on sale cattle	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
Repulling	$0	$0	$0	$0	$0	$0	$14,000	$14,000	$14,000	$14,000
Category 2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 5	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 6	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 7	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 8	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 9	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 10	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 11	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 12	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 13	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 14	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 15	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 16	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 17	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 18	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
GST on all outlays	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
GST paid to ATO ..	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Fixed Cost	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$114,000	$114,000	$114,000	$114,000

Re Tables 8 & 9: Debt reduction and interest paid and received are calculated at Table 10. Do not include at Tables 8 or 9.

INCOME TABLE 9 - INCOME, DEBT AND NET WORTH

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Cattle sales	$264,494	$211,817	$222,548	$228,320	$255,445	$376,389	$487,049	$557,498	$606,313	$631,146
Other livestock sales .sheep	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other livestock sales .other stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Net wool sales	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sundry income (1)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sundry income (2)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
GST on all receipts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total operating receipts	$264,494	$211,817	$222,548	$228,320	$255,445	$376,389	$487,049	$557,498	$606,313	$631,146
Total fixed and variable costs	$114,429	$115,700	$117,620	$120,407	$122,915	$124,941	$140,054	$140,499	$140,644	$140,665
Cattle purchases	$9,000	$10,500	$12,000	$13,500	$13,500	$15,000	$15,000	$15,000	$15,000	$15,000
Other LS purchases . sheep	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other LS purchases . other stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total operating outlays	$123,429	$126,200	$129,620	$133,907	$136,415	$139,941	$155,054	$155,499	$155,644	$155,665
Opening value of cattle	$1,129,864	$1,177,220	$1,317,000	$1,513,199	$1,754,263	$2,035,799	$2,245,908	$2,374,137	$2,449,093	$2,482,116
Opening value of ..... sheep	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Opening value of ..... other stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total opening stock value ..	$1,129,864	$1,177,220	$1,317,000	$1,513,199	$1,754,263	$2,035,799	$2,245,908	$2,374,137	$2,449,093	$2,482,116
Closing value of cattle	$1,177,220	$1,317,000	$1,513,199	$1,754,263	$2,035,799	$2,245,908	$2,374,137	$2,449,093	$2,482,116	$2,492,523
Closing value of ..... sheep	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Closing value of ..... other stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total closing stock value ..	$1,177,220	$1,317,000	$1,513,199	$1,754,263	$2,035,799	$2,245,908	$2,374,137	$2,449,093	$2,482,116	$2,492,523
Capital transfers in	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capital transfers out	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Family living or drawings ..	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000
Tax paid on last yr' s income	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Opening land plant & imprvts	$1,500,000	$1,570,000	$1,640,000	$1,710,000	$1,780,000	$1,850,000	$1,850,000	$1,850,000	$1,850,000	$1,850,000
Capital purchases	$100,000	$100,000	$100,000	$100,000	$100,000	$30,000	$30,000	$30,000	$30,000	$30,000
Capital sales	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Depreciation estimate	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Asset revaluation (+ or -)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Closing land plant & imprvts	$1,570,000	$1,640,000	$1,710,000	$1,780,000	$1,850,000	$1,850,000	$1,850,000	$1,850,000	$1,850,000	$1,850,000
Opening net debt (credit) ..	$0	-$1,065	$53,319	$100,391	$145,978	$166,947	$500	-$261,496	-$593,494	-$974,163
Closing net debt (credit) ..	-$1,065	$53,319	$100,391	$145,978	$166,947	$500	-$261,496	-$593,494	-$974,163	-$1,379,644
Interest paid (received) ...	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Closing total non-cash assets	$2,747,220	$2,957,000	$3,223,199	$3,534,263	$3,885,799	$4,095,908	$4,224,137	$4,299,093	$4,332,116	$4,342,523
Closing net worth (incl cash) ..	$2,748,285	$2,903,681	$3,122,808	$3,388,285	$3,718,852	$4,095,408	$4,485,633	$4,892,587	$5,306,279	$5,722,167
Closing net worth % (incl cash)	100%	98%	97%	96%	96%	100%	100%	100%	100%	100%
Cash flow for debt service .	$1,065	-$54,384	-$47,072	-$45,587	-$20,969	$166,447	$261,995	$331,998	$380,669	$405,481
Net income after Int & Depn	$158,421	$195,396	$259,127	$305,477	$370,566	$416,557	$430,224	$446,954	$453,692	$455,888
Allowance for unpaid labour ..	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Return on total non-cash assets	$158,421	$195,396	$259,127	$305,477	$370,566	$416,557	$430,224	$446,954	$453,692	$455,888
Return on total non-cash assets	5.89%	6.85%	8.39%	9.04%	9.98%	10.44%	10.34%	10.49%	10.51%	10.51%

Note: Percent return on total non-cash assets is calculated on the average of opening and closing non-cash assets.

LOANS TABLE 10

(a) Term Loan Specifications

Term Loan Description	Starting Date	Opening Balance	Payments Per Year	Amnt Each Payment	Nominal Interest
	Enter starting date as Jul-2002 or 01-Jul-2002 etc.				
Term loan 1 ...	Jan-2002	$0	4	$0	10.00%
Term loan 2 ...	Jan-2002	$0	4	$0	10.00%
Term loan 3 ...	Jan-2002	$0	4	$0	10.00%
Term loan 4 ...	Jan-2002	$0	4	$0	10.00%
Term loan 5 ...	Jan-2002	$0	4	$0	10.00%
Term loan 6 ...	Jan-2002	$0	4	$0	10.00%

Enter lease or hire purchase payments as fixed costs a
Table 8, and residuals as capital expenditure in Table 9
Interest on working accounts is calculated on closing balances. Debit account #1 adjusts when cash flow exceeds or falls short of needs for term loan repaymen
or when new loans are received or repayments altered.

For established loans enter balance owing at start of budget period, but do not change starting date.
For new loans, enter starting date, amount of loan, and loan terms.
New loans are credited to Debit a/c #1.
Enter at least one payment per year - zero will be treated as one.

(b) Term Loan Projections

Term Loan Description	Balance 01-Jan-2002	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2002	Balance 01-Jan-2003	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2003
Term loan 1 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 2 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 3 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 4 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 5 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 6 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Totals	$0	$0	na	$0	$0	$0	$0	na	$0	$0
New Loans Recd.	$0					$0				

Note re Working Accounts:

Negative numbers in the debit a/c indicate credit balances at start or end of year, or an adjustment out of the a/c.
Negative numbers in the credit a/cs indicate debit balances at start or end of year, or adjustments out of the a/c.
Adjustments into (or out of) Debit a/c #2 or Credit a/c are taken from or deposited into Debit a/c #1.

(c) Working Accounts and Term Deposits (incl FMB)

Debit and Credit Working Accounts	Balance 01-Jan-2002	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2002	Balance 01-Jan-2003	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2003
Debit a/c #1 .	$0	$1,065	0.00%	$0	-$1,065	-$1,065	-$54,384	0.00%	$0	$53,319
Debit a/c #2 .	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Credit a/c ...	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Term Deposits	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
(Term deposit interest paid to Debit a/c #1)										
Working a/c Totals	$0	na	na	$0	-$1,065	-$1,065	na	na	$0	$53,319
Term+Working Totals	$0	na	na	$0	-$1,065	-$1,065	na	na	$0	$53,319

(b) Term Loan Projec

Term Loan Description	Balance 01-Jan-2004	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2004	Balance 01-Jan-2005	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2005	Balance 01-Jan-2006	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2006
Term loan 1 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 2 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 3 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 4 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 5 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 6 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Totals	$0	$0	na	$0	$0	$0	$0	na	$0	$0	$0	$0	na	$0	$0
New Loans Recd.	$0					$0					$0				

(c) Working Account

Debit and Credit Working Accounts	Balance 01-Jan-2004	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2004	Balance 01-Jan-2005	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2005	Balance 01-Jan-2006	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2006
Debit a/c #1 .	$53,319	-$47,072	0.00%	$0	$100,391	$100,391	-$45,587	0.00%	$0	$145,978	$145,978	-$20,969	0.00%	$0	$166,947
Debit a/c #2 .	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Credit a/c ...	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Term Deposits	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
(Term deposit interest paid to Debit a															
Working a/c Totals	$53,319	-$47,072	na	$0	$100,391	$100,391	-$45,587	na	$0	$145,978	$145,978	-$20,969	na	$0	$166,947
Term+Working Totals	$53,319	na	na	$0	$100,391	$100,391	na	na	$0	$145,978	$145,978	na	na	$0	$166,947

(b) Term Loan Projec

Term Loan Description	Opening 01-Jan-2007	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2007	Balance 01-Jan-2008	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2008	Balance 01-Jan-2009	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2009
Term loan 1 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 2 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 3 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 4 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 5 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 6 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Totals	$0	$0	na	$0	$0	$0	$0	na	$0	$0	$0	$0	na	$0	$0
New Loans Recd.	$0					$0					$0				

(c) Working Account

Debit and Credit Working Accounts	Balance 01-Jan-2007	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2007	Balance 01-Jan-2008	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2008	Balance 01-Jan-2009	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2009
Debit a/c #1 .	$166,947	$166,447	0.00%	$0	$500	$500	$261,995	0.00%	$0	-$261,496	-$261,496	$331,998	0.00%	$0	-$593,494
Debit a/c #2 .	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Credit a/c ...	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Term Deposits	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
(Term deposit interest paid to Debit a															
Working a/c Totals	$166,947	$166,447	na	$0	$500	$500	na	na	$0	-$261,496	-$261,496	na	na	$0	-$593,494
Term+Working Totals	$166,947	na	na	$0	$500	$500	na	na	$0	-$261,496	-$261,496	na	na	$0	-$593,494

(b) Term Loan Projec

Term Loan Description	Balance 01-Jan-2010	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2010	Balance 01-Jan-2011	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2011
Term loan 1 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 2 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 3 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 4 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 5 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 6 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Totals	$0	$0	na	$0	$0	$0	$0	na	$0	$0
New Loans Recd.	$0					$0				

(c) Working Account

Debit and Credit Working Accounts	Balance 01-Jan-2010	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2010	Balance 01-Jan-2011	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2011
Debit a/c #1 .	-$593,494	$380,669	0.00%	$0	-$974,163	-$974,163	$405,481	0.00%	$0	-$1,379,644
Debit a/c #2 .	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Credit a/c ...	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Term Deposits	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
(Term deposit interest paid to Debit a										
Working a/c Totals	-$593,494	na	na	$0	-$974,163	-$974,163	na	na	$0	-$1,379,644
Term+Working Totals	-$593,494	na	na	$0	-$974,163	-$974,163	na	na	$0	-$1,379,644

DATA TABLE 5B - FEMALE INVENTORY PRICES

Description	Valuation for opening inventory each year:										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
New calves .	na	na	na	na	na	na	na	na	na	na	na
Heifer wnrs	$187	$199	$212	$225	$225	$225	$225	$225	$225	$225	$225
Heifers 1 yr	$301	$313	$325	$338	$338	$338	$338	$338	$338	$338	$338
Heifrs 2 yrs	$387	$399	$411	$424	$424	$424	$424	$424	$424	$424	$424
Cows 3 yrs	$424	$448	$448	$461	$461	$461	$461	$461	$461	$461	$461
Cows 4 yrs	$419	$436	$447	$447	$447	$447	$447	$447	$447	$447	$447
Cows 5 yrs	$419	$430	$441	$459	$476	$476	$476	$476	$476	$476	$476
Cows 6 yrs	$419	$436	$447	$459	$470	$476	$476	$476	$476	$476	$476
Cows 7 yrs	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476	$476
Cows 8 yrs	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476	$476
Cows 9 yrs	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476	$476
Cows 10 yrs	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476	$476
Cows 11 +	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476	$476
Spays	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Note: ***Inventory prices copy from corresponding year of sale prices, except final year which copies year before inventory price.***

DATA TABLE 6B - MALE INVENTORY PRICES

Description	Valuation for opening inventory each year:										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Steer wnrs .	$216	$230	$245	$260	$260	$260	$260	$260	$260	$260	$260
Steers 1 yr	$348	$370	$391	$391	$391	$391	$391	$391	$391	$391	$391
Steers 2 yrs	$490	$512	$533	$533	$533	$533	$533	$533	$533	$533	$533
Bullocks 3 .	$632	$654	$675	$675	$675	$675	$675	$675	$675	$675	$675
Bullocks 4 .	$780	$802	$823	$823	$823	$823	$823	$823	$823	$823	$823
Bullocks 5 .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 6 +	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Herd bulls .	$916	$916	$916	$916	$916	$916	$916	$916	$916	$916	$916

OUTCOMES	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Adult equivalents	1998	2167	2433	2783	3204	3511	3699	3802	3848	3862
Cash flow for debt service .	$1,065	-$54,384	-$47,072	-$45,587	-$20,969	$166,447	$261,995	$331,998	$380,669	$405,481
Working a/cs net debt end yr	-$1,065	$53,319	$100,391	$145,978	$166,947	$500	-$261,496	-$593,494	-$974,163	-$1,379,644
Total debt at end of year ..	-$1,065	$53,319	$100,391	$145,978	$166,947	$500	-$261,496	-$593,494	-$974,163	-$1,379,644
Total non-cash assets at end yr	$2,747,220	$2,957,000	$3,223,199	$3,534,263	$3,885,799	$4,095,908	$4,224,137	$4,299,093	$4,332,116	$4,342,523
Net worth at end of year ...	$2,748,285	$2,903,681	$3,122,808	$3,388,285	$3,718,852	$4,095,408	$4,485,633	$4,892,587	$5,306,279	$5,722,167
Net worth % at end of year .	100%	98%	97%	96%	96%	100%	100%	100%	100%	100%

LOAN REPAYMENT AND LEASE CALCULATOR

Loan principal	$100,000
Nominal interest rate	8.00%
Term of loan (yrs)	10
Repayments per year	2
Residual at end (lease only)	$0
Each repayment	$7,358
Annual repayment	$14,716
Effective interest rate	8.16%

To copy interest rate, repayments per year, and loan repayment calculation (but not loan principal) to Loan Terms (Table 10a), place cursor on target row of Table 10a and click icon (red arrow).

ADDITIONAL RATIOS:

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Herd gross margin	$288,421	$325,396	$389,127	$435,477	$500,566	$546,557	$574,224	$590,954	$597,692	$599,888
GM per adult equivalent	$144.33	$150.17	$159.95	$156.46	$156.22	$155.65	$155.25	$155.42	$155.34	$155.35
Total variable costs per AE	$7.22	$7.25	$7.24	$7.33	$7.15	$7.10	$7.04	$6.97	$6.92	$6.91
Fixed costs per AE (incl depn)	$65.06	$59.99	$53.44	$46.71	$40.57	$37.02	$38.93	$37.87	$37.43	$37.29
(excl GST)										
Net potential turnoff #	487	626	842	943	1046	1097	1122	1122	643	1121
Net potential turnoff/opening # %	16.72%	21.51%	26.38%	25.60%	24.51%	22.40%	21.00%	19.97%	11.16%	19.26%
Total F&V cost/NPT (ex GST)	$296.57	$232.75	$175.32	$159.50	$146.19	$141.24	$151.56	$151.96	$265.39	$152.24
Average sale price all classes	$534.33	$603.47	$621.64	$620.44	$599.64	$568.56	$569.65	$563.70	$565.06	$566.05
Total capital per AE	$1,345	$1,316	$1,270	$1,214	$1,158	$1,137	$1,125	$1,121	$1,122	$1,123

Note: Net potential turnoff is actual net turnoff plus or minus increase or decrease in herd.
Total fixed costs include depreciation but not GST. No allocation of fixed costs has been made to non-cattle income sources.

DYNAMA - Multi Year Herd Model - Version 5.036a

Software devised by W.E.Holmes, QDPI, Townsville, Qld.

Name: *Lakeview - no clearing, but increase carrying from 2000 to 2500 AE*
Date: *February 2002*
File: C:\HBVISUAL\DYNAMA\DNLKNO02.BDT

Enter start month-year	Jan-2002
First year starts	01-Jan-2002
First year ends	31-Dec-2002

Three letters, minus (-), and four digits.
May also use the form 01-Jul-2002

Re Tables 1-3: Year 1 data in Tables 1-3 copies to later years but may be overridden. Year labels refer to end of budget year. Label "2002" can refer to calendar year 2002 or financial year 2001-2002.

DATA TABLE 1 - FEMALE DEATH RATES ***(Calculated on opening numbers plus purchases, less spays and sales)***

Start of Year — Expected annual death rates (%) each year:

Description	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Heifer weaners .	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Heifers 1 year .	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Heifers 2 years	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cows 3 years ...	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cows 4 years ...	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cows 5 years ...	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cows 6 years ...	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cows 7 years ...	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cows 8 years ...	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cows 9 years ...	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Cows 10 yrs plus	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Spayed cows	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

DATA TABLE 2 - MALE DEATH RATES ***(Calculated on opening numbers plus purchases less sales)***

Start of Year — Expected death rates (%) each year:

Description	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Steer weaners ..	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Steers 1 year ..	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Steers 2 years .	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Bullocks 3 yrs .	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Bullocks 4 yrs .	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Bullocks 5 yrs +	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

DATA TABLE 3 - WEANING RATES ***(Double click in green drilldown cells to choose method of calculating calves weaned)***

Mating Age Group — Expected weaning rates (%) each year:

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
	'New calves' calculated on opening breeders + purchases - spays - sales					*Double click here to change female base for calculating "new calves"*				
Cows mated 1 yr	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cows mated 2 yrs	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Cows mated 3 yrs	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Cows mated 4 yrs	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Cows mated 5 yrs	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Cows mated 6 yrs	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Cows mated 7 yrs	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Cows mated 8 yrs	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Cows mated 9 yrs	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%
Cows mated 10 +	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%	55.0%

***Re Tables 4-6:** Data from yr 1 of Tables 4-6 copies to later years but may be overwritten. Year labels refer to the end of the budget year in which animals are sold, e.g. prices for financial year 2000 will cover animals sold from July 1999 to June 2000.*

DATA TABLE 4 - PURCHASE PRICES ***(Include freight and buying costs, but not GST.)***

Age/Sex Group	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mxd)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifer weaners .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifers 1 year .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifers 2 years	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cows 3 yrs plus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steer calves ...	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steers 1 year ..	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steers 2 years .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 3 yrs .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 4 yrs .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bulls	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500

DATA TABLE 5A - FEMALE SALE PRICES ***(Net of selling and freight costs. Do not include GST.)***

Description	Expected sale price each year:									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mxd)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifer weaners .	$187	$187	$187	$187	$187	$187	$187	$187	$187	$187
Heifers 1 year .	$301	$301	$301	$301	$301	$301	$301	$301	$301	$301
Heifers 2 years	$387	$387	$387	$387	$387	$387	$387	$387	$387	$387
Cows 3 years ...	$424	$424	$424	$424	$424	$424	$424	$424	$424	$424
Cows 4 years ...	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 5 years ...	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 6 years ...	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 7 years ...	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 8 years ...	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 9 years ...	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 10 years ..	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 11 yrs plus	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Spayed cows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

DATA TABLE 6A - MALE SALE PRICES ***(Net of selling and freight costs. Do not include GST.)***

Description	Expected sale price each year:									
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Steer weaners ..	$216	$216	$216	$216	$216	$216	$216	$216	$216	$216
Steers 1 year ..	$348	$348	$348	$348	$348	$348	$348	$348	$348	$348
Steers 2 years .	$490	$490	$490	$490	$490	$490	$490	$490	$490	$490
Bullocks 3 yrs .	$632	$632	$632	$632	$632	$632	$632	$632	$632	$632
Bullocks 4 yrs .	$774	$774	$774	$774	$774	$774	$774	$774	$774	$774
Bullocks 5 yrs .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 6 yrs +	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Herd bulls	$916	$916	$916	$916	$916	$916	$916	$916	$916	$916

Re Table 7: New calves may be calculated on opening cows, plus purchases, less sales and spays, or simply on opening breeder numbers. Double click in green drilldown cells to select method.

HERD TABLE 7 **HERD GROWTH, TRANSACTIONS AND CARRYOVERS** *To check if closing new calves = AutoSales target, press F12 key*

Start of Year	01-Jan-2002				31-Dec-2002	01-Jan-2003				31-Dec-2003
Description	Start Year (Enter No)	Purch (Enter)	Spay (Enter)	Sell (Enter)	Closing Numbers	Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	Closing Numbers
	' New calves' calculated on opening breeders + purchases - spays - sales					Double click here to change female base for calculating "new calves"				
New calves	na	0	na	0	559	na	0	na	0	608
Heifer weaners .	279	0	0	0	273	280	0	0	0	274
Heifers 1 yr ...	274	0	0	0	271	273	0	0	0	270
Heifers 2 yrs ..	271	0	0	94	168	271	0	0	50	210
Cows 3 yrs	168	0	0	8	152	168	0	0	0	160
Cows 4 yrs	152	0	0	8	137	152	0	0	0	144
Cows 5 yrs	137	0	0	7	124	137	0	0	0	130
Cows 6 yrs	124	0	0	6	112	124	0	0	0	118
Cows 7 yrs	111	0	0	6	100	112	0	0	0	106
Cows 8 yrs	101	0	0	5	91	100	0	0	0	95
Cows 9 yrs	91	0	0	5	82	91	0	0	0	86
Cows 10 yrs	82	0	0	82	0	82	0	0	82	0
Cows 11 yrs plus	0	0	0	0	0	0	0	0	0	0
Spayed cows	0	na	na	0	0	0	na	na	0	0
Steer weaners ..	279	0	na	0	273	280	0	na	0	274
Steers 1 yr old	274	0	na	0	271	273	0	na	0	270
Steers 2 yrs ...	271	0	na	0	268	271	0	na	0	268
Bullocks 3 yrs .	268	0	na	268	0	268	0	na	268	0
Bullocks 4 yrs .	0	0	na	0	0	0	0	na	0	0
Bullocks 5 yrs .	0	na	na	0	0	0	na	na	0	0
Bullocks 6 yrs +	0	na	na	0	0	0	na	na	0	0
Herd bulls	30	6	na	6	29	29	7	na	3	32
BYO bulls 2 yrs	0	na	na	na	na	0	na	na	na	na
Total Cattle ...	2912	6	0	495	2910	2910	7	0	403	3045
Total Adults ...	2354	6	0	495	2351	2351	7	0	403	2437

Double click here for layout with outcomes

Refers to this year's mating ONLY ====>	Cows sold or spayed after mating	0	Cows sold or spayed after mating	0
Use overrides only if mating for ===>	Cows mated and kept to calve	1016	Cows mated and kept to calve	1105
this year's calves is in previous yr ===>	Total mated for "new calves" produced	1016	Total mated for "new calves" produced	1105
	Bulls required for this year's mating	30	Bulls required for this year's mating	33
Review override values following	Weaning rate on cows kept	55.02%	Weaning rate on cows kept	55.02%
any change to breeder entries	Weaning rate on all cows mated	54.53%	Weaning rate on all cows mated	55.02%
in current or previous years.	Bull/cow ratio	3.00%	Bull/cow ratio	3.00%
	Minimum purchase % of bulls required	20.00%	Minimum purchase % of bulls required	20.00%
Bull requirements are calculated for	BYO retention % bulls required	0.00%	BYO retention % bulls required	0.00%
the current year's MATING, which is	Bull death rate	2.00%	Bull death rate	2.00%
not necessarily for this year's calving.	Closing new calves % female	50.00%	Closing new calves % female	50.00%

Herd Summary ...	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total AE carried	1998	2094	2195	2307	2408	2461	2489	2500	2503	2503
Total sales # ..	495	403	417	431	472	543	584	607	618	621
Total purchase #	6	7	7	7	8	8	8	8	8	8
Total new calves	559	608	646	675	694	699	699	699	699	699
Total deaths # .	72	77	80	84	85	87	86	86	86	86
Net $ sales	$264,440	$225,799	$232,239	$237,854	$255,460	$290,195	$310,735	$323,064	$329,526	$331,422
Net $ purchases	$9,000	$10,500	$10,500	$10,500	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000

HERD TABLE 7

Start of Year / Description	01-Jan-2004 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2004 Closing Numbers	01-Jan-2005 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2005 Closing Numbers	01-Jan-2006 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2006 Closing Numbers
New calves	na	0	na	0	646	na	0	na	0	675	na	0	na	0	694
Heifer weaners .	304	0	0	0	298	323	0	0	0	317	338	0	0	0	331
Heifers 1 yr ...	274	0	0	0	271	298	0	0	0	295	317	0	0	0	314
Heifers 2 yrs ..	270	0	0	49	210	271	0	0	50	210	295	0	0	74	210
Cows 3 yrs	210	0	0	10	190	210	0	0	10	190	210	0	0	10	190
Cows 4 yrs	160	0	0	0	152	190	0	0	10	171	190	0	0	10	171
Cows 5 yrs	144	0	0	0	137	152	0	0	0	144	171	0	0	8	155
Cows 6 yrs	130	0	0	0	124	137	0	0	0	130	144	0	0	0	137
Cows 7 yrs	118	0	0	0	112	124	0	0	0	118	130	0	0	0	124
Cows 8 yrs	106	0	0	0	101	112	0	0	0	106	118	0	0	0	112
Cows 9 yrs	95	0	0	0	90	101	0	0	0	96	106	0	0	0	101
Cows 10 yrs	86	0	0	86	0	90	0	0	90	0	96	0	0	96	0
Cows 11 yrs plus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spayed cows	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Steer weaners ..	304	0	na	0	298	323	0	na	0	317	338	0	na	0	331
Steers 1 yr old	274	0	na	0	271	298	0	na	0	295	317	0	na	0	314
Steers 2 yrs ...	270	0	na	0	267	271	0	na	0	268	295	0	na	0	292
Bullocks 3 yrs .	268	0	na	268	0	267	0	na	267	0	268	0	na	268	0
Bullocks 4 yrs .	0	0	na	0	0	0	0	na	0	0	0	0	na	0	0
Bullocks 5 yrs .	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Bullocks 6 yrs +	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Herd bulls	32	7	na	4	34	34	7	na	4	36	36	8	na	6	37
BYO bulls 2 yrs	0	na	na	na	na	0	na	na	na	na	0	na	na	na	na
Total Cattle ...	3045	7	0	417	3201	3201	7	0	431	3368	3368	8	0	472	3513
Total Adults ...	2437	7	0	417	2555	2555	7	0	431	2693	2693	8	0	472	3513

Refers to this year' s mating ONLY
Use overrides only if mating for this year' s calves is in previous yr

Review override values following any change to breeder entries in current or previous years.

Bull requirements are calculated fo the current year' s MATING, which not necessarily for this year' s calv

Cows sold or spayed after mating	0	0	0
Cows mated and kept to calve	1174	1227	1262
Total mated for "new calves" produced	1174	1227	1262
Bulls required for this year' s mating	35	37	38
Weaning rate on cows kept	55.03%	55.01%	54.99%
Weaning rate on all cows mated	55.03%	55.01%	54.99%
Bull/cow ratio	3.00%	3.00%	3.00%
Minimum purchase % of bulls required	20.00%	20.00%	20.00%
BYO retention % bulls required	0.00%	0.00%	0.00%
Bull death rate	2.00%	2.00%	2.00%
Closing new calves % female	50.00%	50.00%	50.00%

HERD TABLE 7

Start of Year / Description	01-Jan-2007 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2007 Closing Numbers	01-Jan-2008 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2008 Closing Numbers	01-Jan-2009 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2009 Closing Numbers
New calves	na	0	na	0	699	na	0	na	0	699	na	0	na	0	699
Heifer weaners .	347	0	0	0	340	350	0	0	1	342	350	0	0	1	342
Heifers 1 yr ...	331	0	0	0	328	340	0	0	0	337	342	0	0	0	339
Heifers 2 yrs ..	314	0	0	93	210	328	0	0	107	210	337	0	0	116	210
Cows 3 yrs	210	0	0	10	190	210	0	0	10	190	210	0	0	10	190
Cows 4 yrs	190	0	0	10	171	190	0	0	10	171	190	0	0	10	171
Cows 5 yrs	171	0	0	8	155	171	0	0	8	155	171	0	0	8	155
Cows 6 yrs	155	0	0	8	140	155	0	0	8	140	155	0	0	8	140
Cows 7 yrs	137	0	0	5	125	140	0	0	8	125	140	0	0	8	125
Cows 8 yrs	124	0	0	5	113	125	0	0	6	113	125	0	0	6	113
Cows 9 yrs	112	0	0	4	103	113	0	0	5	103	113	0	0	5	103
Cows 10 yrs	101	0	0	101	0	103	0	0	103	0	103	0	0	103	0
Cows 11 yrs plus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spayed cows	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Steer weaners ..	347	0	na	0	340	350	0	na	0	343	350	0	na	0	343
Steers 1 yr old	331	0	na	0	328	340	0	na	0	337	343	0	na	0	340
Steers 2 yrs ...	314	0	na	0	311	328	0	na	0	325	337	0	na	0	334
Bullocks 3 yrs .	292	0	na	292	0	311	0	na	311	0	325	0	na	325	0
Bullocks 4 yrs .	0	0	na	0	0	0	0	na	0	0	0	0	na	0	0
Bullocks 5 yrs .	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Bullocks 6 yrs +	0	na	na	0	0	0	na	na	0	0	0	na	na	0	0
Herd bulls	37	8	na	7	37	37	8	na	7	37	37	8	na	7	37
BYO bulls 2 yrs	0	na	na	na	na	0	na	na	na	na	0	na	na	na	na
Total Cattle ...	3513	8	0	543	3590	3590	8	0	584	3627	3627	8	0	607	3641
Total Adults ...	2819	8	0	543	2891	2891	8	0	583	2928	2928	8	0	606	2942

Refers to this year' s mating ONLY
Use overrides only if mating for this year' s calves is in previous yr

Review override values following any change to breeder entries in current or previous years.

Bull requirements are calculated fo the current year' s MATING, which not necessarily for this year' s calv

Cows sold or spayed after mating	0	0	0
Cows mated and kept to calve	1270	1270	1270
Total mated for "new calves" produced	1270	1270	1270
Bulls required for this year' s mating	38	38	38
Weaning rate on cows kept	55.04%	55.04%	55.04%
Weaning rate on all cows mated	54.72%	54.65%	54.65%
Bull/cow ratio	3.00%	3.00%	3.00%
Minimum purchase % of bulls required	20.00%	20.00%	20.00%
BYO retention % bulls required	0.00%	0.00%	0.00%
Bull death rate	2.00%	2.00%	2.00%
Closing new calves % female	50.00%	50.00%	50.00%

HERD TABLE 7

Start of Year / Description	01-Jan-2010 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2010 Closing Numbers	01-Jan-2011 Opening Numbers	Purch (Enter)	Spay (Enter)	Sell (Enter)	31-Dec-2011 Closing Numbers	*** AE Ratings per Head *** Carried Whole Yr	Carried to Sale	**** AUTOSALES INPUT **** Sales % of Opening No	Preferred Residual
New calves	na	0	na	0	699	na	0	na	0	699	0.35	na	New Calves	698
Heifer weaners .	350	0	0	1	342	350	0	0	1	342	0.48	0.00	0.00%	349
Heifers 1 yr ...	342	0	0	0	339	342	0	0	0	339	0.66	0.00	0.00%	342
Heifers 2 yrs ..	339	0	0	118	210	339	0	0	118	210	0.80	0.00	0.00%	221
Cows 3 yrs	210	0	0	10	190	210	0	0	10	190	0.88	0.00	0.00%	200
Cows 4 yrs	190	0	0	10	171	190	0	0	10	171	0.88	0.00	0.00%	180
Cows 5 yrs	171	0	0	8	155	171	0	0	8	155	0.88	0.00	0.00%	163
Cows 6 yrs	155	0	0	8	140	155	0	0	8	140	0.88	0.00	0.00%	147
Cows 7 yrs	140	0	0	8	125	140	0	0	8	125	0.88	0.00	0.00%	132
Cows 8 yrs	125	0	0	6	113	125	0	0	6	113	0.88	0.00	0.00%	119
Cows 9 yrs	113	0	0	5	103	113	0	0	5	103	0.88	0.00	0.00%	108
Cows 10 yrs	103	0	0	103	0	103	0	0	103	0	0.88	0.00	100.00%	0
Cows 11 yrs plus	0	0	0	0	0	0	0	0	0	0	0.88	0.00	na	na
Spayed cows	0	na	na	0	0	0	na	na	0	0	1.00	0.00	na	na
Steer weaners ..	350	0	na	0	343	350	0	na	0	343	0.48	0.00	0.00%	0
Steers 1 yr old	343	0	na	0	340	343	0	na	0	340	0.69	0.00	0.00%	0
Steers 2 yrs ...	340	0	na	0	337	340	0	na	0	337	0.89	0.00	0.00%	0
Bullocks 3 yrs .	334	0	na	334	0	337	0	na	337	0	1.09	0.00	100.00%	0
Bullocks 4 yrs .	0	0	na	0	0	0	0	na	0	0	1.29	0.00	100.00%	0
Bullocks 5 yrs .	0	na	na	0	0	0	na	na	0	0	1.46	0.00	100.00%	0
Bullocks 6 yrs +	0	na	na	0	0	0	na	na	0	0	1.46	0.00	na	na
Herd bulls	37	8	na	7	37	37	8	na	7	37	1.43	0.00	na	na
BYO bulls 2 yrs	0	na	na	na	na	0	na	na	na	na	na	na	na	na
Total Cattle ...	3641	8	0	618	3644	3644	8	0	621	3644				
Total Adults ...	2942	8	0	617	2945	2945	8	0	620	2945				

Default sales will be whichever is more, % of opening number, or sales required to reduce the group to the preferred residual. Sales % is worked on opening number plus purchases less spays.

For example, if opening number is 500 head, % sales are 10%, and preferred residual is 400, sales will be 100, which is the greater of 50 (10% of 500) and 100.

If opening number is 500, % sales are 10%, and preferred residual is 480, sales will be 50, since 50 is more than 20 (500-480).

If both % sales and preferred residual are zero, i.e. no entries, sales will be zero. Therefore, to sell all of one class, enter 100%, rather than preferred residual 0.

Sales figures generated for each year by the sales formulas may be overridden by numeric entries.

Refers to this year' s mating ONL
Use overrides only if mating for
this year' s calves is in previous

Review override values following
any change to breeder entries
in current or previous years.

Bull requirements are calculated
the current year' s MATING, whi
not necessarily for this year' s ca

Cows sold or spayed after mating	0	Cows sold or spayed after mating	0
Cows mated and kept to calve	1270	Cows mated and kept to calve	1270
Total mated for "new calves" produced	1270	Total mated for "new calves" produced	1270
Bulls required for this year' s mating	38	Bulls required for this year' s mating	38
Weaning rate on cows kept	55.04%	Weaning rate on cows kept	55.04%
Weaning rate on all cows mated	54.65%	Weaning rate on all cows mated	54.65%
Bull/cow ratio	3.00%	Bull/cow ratio	3.00%
Minimum purchase % of bulls required	20.00%	Minimum purchase % of bulls required	20.00%
BYO retention % bulls required	0.00%	BYO retention % bulls required	0.00%
Bull death rate	2.00%	Bull death rate	2.00%
Closing new calves % female	50.00%	Closing new calves % female	50.00%

COSTS TABLE 8 - VARIABLE AND FIXED COSTS ***(Do not include GST in individual categories)***

Variable Cost/Hd	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Per weaner	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90	$4.90
Per heifer 1 yr	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90	$6.90
Per heifer 2 yrs	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90
Per cow 3 yrs +	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90
Per spayed cow .	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Per steer 1 yr .	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per steer 2 yrs	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per bullock 3 yr	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per bullock 4 yr	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per bullock 5 +	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90	$0.90
Per herd bull ..	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90	$8.90
Total Herd VC ..	$14,429	$15,242	$16,121	$16,982	$17,373	$17,907	$18,009	$18,034	$18,037	$18,037

(Do not include GST in individual categories)

Fixed Costs	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Estimate only	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
Category 1	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 2	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 3	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 4	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 5	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 6	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 7	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 8	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 9	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 10	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 11	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 12	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 13	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 14	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 15	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 16	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 17	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Category 18	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
GST on all outlays	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
GST paid to ATO ..	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Fixed Cost	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000

Re Tables 8 & 9: Debt reduction and interest paid and received are calculated at Table 10. Do not include at Tables 8 or 9.

INCOME TABLE 9 - INCOME, DEBT AND NET WORTH

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Cattle sales	$264,440	$225,799	$232,239	$237,854	$255,460	$290,195	$310,735	$323,064	$329,526	$331,422
Other livestock sales .sheep	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other livestock sales .other stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Net wool sales	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sundry income (1)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Sundry income (2)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
GST on all receipts	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total operating receipts	$264,440	$225,799	$232,239	$237,854	$255,460	$290,195	$310,735	$323,064	$329,526	$331,422
Total fixed and variable costs	$114,429	$115,242	$116,121	$116,982	$117,373	$117,907	$118,009	$118,034	$118,037	$118,037
Cattle purchases	$9,000	$10,500	$10,500	$10,500	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000
Other LS purchases . sheep	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other LS purchases . other stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total operating outlays	$123,429	$125,742	$126,621	$127,482	$129,373	$129,907	$130,009	$130,034	$130,037	$130,037
Opening value of cattle	$1,129,603	$1,128,240	$1,175,578	$1,228,913	$1,291,083	$1,351,375	$1,385,427	$1,403,808	$1,411,739	$1,413,635
Opening value of ..... sheep	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Opening value of ..... other stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total opening stock value ..	$1,129,603	$1,128,240	$1,175,578	$1,228,913	$1,291,083	$1,351,375	$1,385,427	$1,403,808	$1,411,739	$1,413,635
Closing value of cattle	$1,128,240	$1,175,578	$1,228,913	$1,291,083	$1,351,375	$1,385,427	$1,403,808	$1,411,739	$1,413,635	$1,413,635
Closing value of ..... sheep	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Closing value of ..... other stock	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total closing stock value ..	$1,128,240	$1,175,578	$1,228,913	$1,291,083	$1,351,375	$1,385,427	$1,403,808	$1,411,739	$1,413,635	$1,413,635
Capital transfers in	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Capital transfers out	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Family living or drawings ..	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000
Tax paid on last yr' s income	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Opening land plant & imprvts	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Capital purchases	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Capital sales	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Depreciation estimate	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000	$30,000
Asset revaluation (+ or -)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Closing land plant & imprvts	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000
Opening net debt (credit) ..	$0	-$71,011	-$101,069	-$136,686	-$177,059	-$233,146	-$323,434	-$434,160	-$557,190	-$686,679
Closing net debt (credit) ..	-$71,011	-$101,069	-$136,686	-$177,059	-$233,146	-$323,434	-$434,160	-$557,190	-$686,679	-$818,065
Interest paid (received) ...	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Closing total non-cash assets	$2,628,240	$2,675,578	$2,728,913	$2,791,083	$2,851,375	$2,885,427	$2,903,808	$2,911,739	$2,913,635	$2,913,635
Closing net worth (incl cash) ..	$2,699,251	$2,776,646	$2,865,600	$2,968,142	$3,084,521	$3,208,861	$3,337,968	$3,468,929	$3,600,315	$3,731,700
Closing net worth % (incl cash)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cash flow for debt service .	$71,011	$30,058	$35,618	$40,373	$56,087	$90,288	$110,726	$123,030	$129,489	$131,385
Net income after Int & Depn	$109,648	$117,395	$128,953	$142,542	$156,379	$164,340	$169,107	$170,961	$171,385	$171,385
Allowance for unpaid labour ..	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Return on total non-cash assets	$109,648	$117,395	$128,953	$142,542	$156,379	$164,340	$169,107	$170,961	$171,385	$171,385
Return on total non-cash assets	4.17%	4.43%	4.77%	5.16%	5.54%	5.73%	5.84%	5.88%	5.88%	5.88%

Note: Percent return on total non-cash assets is calculated on the average of opening and closing non-cash assets.

LOANS TABLE 10

(a) Term Loan Specifications

Term Loan Description	Starting Date	Opening Balance	Payments Per Year	Amnt Each Payment	Nominal Interest
	Enter starting date as Jul-2002 or 01-Jul-2002 etc.				
Term loan 1 ...	Jan-2002	$0	4	$0	10.00%
Term loan 2 ...	Jan-2002	$0	4	$0	10.00%
Term loan 3 ...	Jan-2002	$0	4	$0	10.00%
Term loan 4 ...	Jan-2002	$0	4	$0	10.00%
Term loan 5 ...	Jan-2002	$0	4	$0	10.00%
Term loan 6 ...	Jan-2002	$0	4	$0	10.00%

Enter lease or hire purchase payments as fixed costs a Table 8, and residuals as capital expenditure in Table 9 Interest on working accounts is calculated on closing balances. Debit account #1 adjusts when cash flow exceeds or falls short of needs for term loan repaymen or when new loans are received or repayments altered.

For established loans enter balance owing at start of budget period, but do not change starting date.
For new loans, enter starting date, amount of loan, and loan terms.
New loans are credited to Debit a/c #1.
Enter at least one payment per year - zero will be treated as one.

(b) Term Loan Projections

Term Loan Description	Balance 01-Jan-2002	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2002	Balance 01-Jan-2003	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2003
Term loan 1 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 2 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 3 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 4 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 5 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 6 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Totals	$0	$0	na	$0	$0	$0	$0	na	$0	$0
New Loans Recd.	$0					$0				

Note re Working Accounts:

Negative numbers in the debit a/c indicate credit balances at start or end of year, or an adjustment out of the a/c.
Negative numbers in the credit a/cs indicate debit balances at start or end of year, or adjustments out of the a/c.
Adjustments into (or out of) Debit a/c #2 or Credit a/c are taken from or deposited into Debit a/c #1.

(c) Working Accounts and Term Deposits (incl FMB)

Debit and Credit Working Accounts	Balance 01-Jan-2002	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2002	Balance 01-Jan-2003	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2003
Debit a/c #1 .	$0	$71,011	0.00%	$0	-$71,011	-$71,011	$30,058	0.00%	$0	-$101,069
Debit a/c #2 .	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Credit a/c ...	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Term Deposits	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
(Term deposit interest paid to Debit a/c #1)										
Working a/c Totals	$0	na	na	$0	-$71,011	-$71,011	na	na	$0	-$101,069
Term+Working Totals	$0	na	na	$0	-$71,011	-$71,011	na	na	$0	-$101,069

(b) Term Loan Projec

Term Loan Description	Balance 01-Jan-2004	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2004	Balance 01-Jan-2005	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2005	Balance 01-Jan-2006	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2006
Term loan 1 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 2 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 3 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 4 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 5 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 6 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Totals	$0	$0	na	$0	$0	$0	$0	na	$0	$0	$0	$0	na	$0	$0
New Loans Recd.	$0					$0					$0				

(c) Working Account

Debit and Credit Working Accounts	Balance 01-Jan-2004	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2004	Balance 01-Jan-2005	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2005	Balance 01-Jan-2006	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2006
Debit a/c #1 .	-$101,069	$35,618	0.00%	$0	-$136,686	-$136,686	$40,373	0.00%	$0	-$177,059	-$177,059	$56,087	0.00%	$0	-$233,146
Debit a/c #2 .	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Credit a/c ...	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Term Deposits	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
(Term deposit interest paid to Debit a															
Working a/c Totals	-$101,069	$35,618	na	$0	-$136,686	-$136,686	$40,373	na	$0	-$177,059	-$177,059	$56,087	na	$0	-$233,146
Term+Working Totals	-$101,069	na	na	$0	-$136,686	-$136,686	na	na	$0	-$177,059	-$177,059	na	na	$0	-$233,146

(b) Term Loan Projec

Term Loan Description	Opening 01-Jan-2007	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2007	Balance 01-Jan-2008	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2008	Balance 01-Jan-2009	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2009
Term loan 1 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 2 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 3 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 4 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 5 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 6 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Totals	$0	$0	na	$0	$0	$0	$0	na	$0	$0	$0	$0	na	$0	$0
New Loans Recd.	$0					$0					$0				

(c) Working Account

Debit and Credit Working Accounts	Balance 01-Jan-2007	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2007	Balance 01-Jan-2008	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2008	Balance 01-Jan-2009	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2009
Debit a/c #1 .	-$233,146	$90,288	0.00%	$0	-$323,434	-$323,434	$110,726	0.00%	$0	-$434,160	-$434,160	$123,030	0.00%	$0	-$557,190
Debit a/c #2 .	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Credit a/c ...	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Term Deposits	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
(Term deposit interest paid to Debit a															
Working a/c Totals	-$233,146	$90,288	na	$0	-$323,434	-$323,434	na	na	$0	-$434,160	-$434,160	na	na	$0	-$557,190
Term+Working Totals	-$233,146	na	na	$0	-$323,434	-$323,434	na	na	$0	-$434,160	-$434,160	na	na	$0	-$557,190

(b) Term Loan Projec

Term Loan Description	Balance 01-Jan-2010	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2010	Balance 01-Jan-2011	Payments This Year	Interest Rate	Interest Amount	Balance 31-Dec-2011
Term loan 1 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 2 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 3 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 4 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 5 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Term loan 6 ...	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
Totals	$0	$0	na	$0	$0	$0	$0	na	$0	$0
New Loans Recd.	$0					$0				

(c) Working Account

Debit and Credit Working Accounts	Balance 01-Jan-2010	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2010	Balance 01-Jan-2011	Adjustment Into a/c	Interest Rate	Interest Estimate	Balance 31-Dec-2011
Debit a/c #1 .	-$557,190	$129,489	0.00%	$0	-$686,679	-$686,679	$131,385	0.00%	$0	-$818,065
Debit a/c #2 .	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Credit a/c ...	$0	$0	0.00%	$0	$0	$0	$0	0.00%	$0	$0
Term Deposits	$0	$0	10.00%	$0	$0	$0	$0	10.00%	$0	$0
(Term deposit interest paid to Debit a										
Working a/c Totals	-$557,190	na	na	$0	-$686,679	-$686,679	na	na	$0	-$818,065
Term+Working Totals	-$557,190	na	na	$0	-$686,679	-$686,679	na	na	$0	-$818,065

DATA TABLE 5B - FEMALE INVENTORY PRICES

Description	Valuation for opening inventory each year:										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
New calves .	na	na	na	na	na	na	na	na	na	na	na
Heifer wnrs	$187	$187	$187	$187	$187	$187	$187	$187	$187	$187	$187
Heifers 1 yr	$301	$301	$301	$301	$301	$301	$301	$301	$301	$301	$301
Heifrs 2 yrs	$387	$387	$387	$387	$387	$387	$387	$387	$387	$387	$387
Cows 3 yrs	$424	$424	$424	$424	$424	$424	$424	$424	$424	$424	$424
Cows 4 yrs	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 5 yrs	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 6 yrs	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 7 yrs	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 8 yrs	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 9 yrs	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 10 yrs	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 11 +	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Spays	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Note: ***Inventory prices copy from corresponding year of sale prices, except final year which copies year before inventory price.***

DATA TABLE 6B - MALE INVENTORY PRICES

Description	Valuation for opening inventory each year:										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Steer wnrs .	$216	$216	$216	$216	$216	$216	$216	$216	$216	$216	$216
Steers 1 yr	$348	$348	$348	$348	$348	$348	$348	$348	$348	$348	$348
Steers 2 yrs	$490	$490	$490	$490	$490	$490	$490	$490	$490	$490	$490
Bullocks 3 .	$632	$632	$632	$632	$632	$632	$632	$632	$632	$632	$632
Bullocks 4 .	$774	$774	$774	$774	$774	$774	$774	$774	$774	$774	$774
Bullocks 5 .	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 6 +	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Herd bulls .	$916	$916	$916	$916	$916	$916	$916	$916	$916	$916	$916

OUTCOMES	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Adult equivalents	1998	2094	2195	2307	2408	2461	2489	2500	2503	2503
Cash flow for debt service .	$71,011	$30,058	$35,618	$40,373	$56,087	$90,288	$110,726	$123,030	$129,489	$131,385
Working a/cs net debt end yr	-$71,011	-$101,069	-$136,686	-$177,059	-$233,146	-$323,434	-$434,160	-$557,190	-$686,679	-$818,065
Total debt at end of year ..	-$71,011	-$101,069	-$136,686	-$177,059	-$233,146	-$323,434	-$434,160	-$557,190	-$686,679	-$818,065
Total non-cash assets at end yr	$2,628,240	$2,675,578	$2,728,913	$2,791,083	$2,851,375	$2,885,427	$2,903,808	$2,911,739	$2,913,635	$2,913,635
Net worth at end of year ...	$2,699,251	$2,776,646	$2,865,600	$2,968,142	$3,084,521	$3,208,861	$3,337,968	$3,468,929	$3,600,315	$3,731,700
Net worth % at end of year .	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

LOAN REPAYMENT AND LEASE CALCULATOR

Loan principal	$100,000
Nominal interest rate	8.00%
Term of loan (yrs)	10
Repayments per year	2
Residual at end (lease only)	$0
Each repayment	$7,358
Annual repayment	$14,716
Effective interest rate	8.16%

To copy interest rate, repayments per year, and loan repayment calculation (but not loan principal) to Loan Terms (Table 10a), place cursor on target row of Table 10a and click icon (red arrow).

ADDITIONAL RATIOS:

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Herd gross margin	$239,648	$247,395	$258,953	$272,542	$286,379	$294,340	$299,107	$300,961	$301,385	$301,385
GM per adult equivalent	$119.93	$118.12	$117.96	$118.12	$118.95	$119.58	$120.18	$120.37	$120.41	$120.41
Total variable costs per AE	$7.22	$7.28	$7.34	$7.36	$7.22	$7.28	$7.24	$7.21	$7.21	$7.21
Fixed costs per AE (incl depn)	$65.06	$62.07	$59.22	$56.34	$54.00	$52.82	$52.24	$51.99	$51.94	$51.94
(excl GST)										
Net potential turnoff #	487	531	566	591	609	612	613	613	559	613
Net potential turnoff/opening # %	16.72%	18.25%	18.59%	18.46%	18.08%	17.42%	17.08%	16.90%	15.35%	16.82%
Total F&V cost/NPT (ex GST)	$296.57	$273.53	$258.17	$248.70	$241.99	$241.68	$241.45	$241.49	$264.82	$241.50
Average sale price all classes	$534.22	$560.30	$556.93	$551.87	$541.23	$534.43	$532.08	$532.23	$533.21	$533.69
Total capital per AE	$1,316	$1,266	$1,231	$1,196	$1,172	$1,165	$1,163	$1,163	$1,164	$1,164

Note: Net potential turnoff is actual net turnoff plus or minus increase or decrease in herd.
Total fixed costs include depreciation but not GST. No allocation of fixed costs has been made to non-cattle income sources.

PRICES - Net Price Calculator for Breedcow, Bcowplus & Dynama Version 5.036

Devised by W.E.Holmes, QDPI, Townsville, Qld.

Name: *Lakeview - prices used for base Breedcow file*
Date: *February 2002*
File: C:\HBVISUAL\PRICES\PRLKBASE.BDT

***Note:** This worksheet calculates net sale prices for BREEDCOW, BCOWPLUS and DYNAMA. Use PRICES to calculate net prices, then save the PRICES data. To access this data from within BREEDCOW, BCOWPLUS or DYNAMA, select File menu item, then Transfer Prices, and nominate the filename under which the price data was saved.*

BREEDCOW and BCOWPLUS price data is the same as DYNAMA Yr 1 data.

Enter Starting Year: 2002 ***[Four digits - can represent calendar or financial year, e.g. 2003 can be financial 2002-2003]***

TABLE 1 - WEIGHT/HEAD ***(Can be live or dressed weights)***

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	0	0	0	0	0	0	0	0	0	0
Heifer weaners	150	150	150	150	150	150	150	150	150	150
Heifers 12 to 18 months ...	250	250	250	250	250	250	250	250	250	250
Heifers 2 yrs to 30 months	320	320	320	320	320	320	320	320	320	320
Cows 3 to 3.5 years	350	350	350	350	350	350	350	350	350	350
Cows 4 to 4.5 years	375	375	375	375	375	375	375	375	375	375
Cows 5 to 5.5 years	375	375	375	375	375	375	375	375	375	375
Cows 6 to 6.5 years	375	375	375	375	375	375	375	375	375	375
Cows 7 to 7.5 years	375	375	375	375	375	375	375	375	375	375
Cows 8 to 8.5 years	375	375	375	375	375	375	375	375	375	375
Cows 9 to 9.5 years	375	375	375	375	375	375	375	375	375	375
Cows 10 to 10.5 years	375	375	375	375	375	375	375	375	375	375
Cows 11 to 11.5 yrs plus ..	375	375	375	375	375	375	375	375	375	375
Spayed cows	0	0	0	0	0	0	0	0	0	0
Steer weaners	150	150	150	150	150	150	150	150	150	150
Steers 12 to 18 months	250	250	250	250	250	250	250	250	250	250
Steers 2 years to 30 months	350	350	350	350	350	350	350	350	350	350
Bullocks 3 to 3.5 years ...	450	450	450	450	450	450	450	450	450	450
Bullocks 4 to 4.5 years ...	550	550	550	550	550	550	550	550	550	550
Bullocks 5 to 5.5 years ...	0	0	0	0	0	0	0	0	0	0
Bullocks 6 to 6.5 yrs plus	0	0	0	0	0	0	0	0	0	0
Culled herd bulls	650	650	650	650	650	650	650	650	650	650

TABLE 2 - PRICE PER KG ***(Can be live or dressed weights - do not include GST)***

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30
Heifers 12 to 18 months ...	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30
Heifers 2 yrs to 30 months	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30
Cows 3 to 3.5 years	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30
Cows 4 to 4.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 5 to 5.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 6 to 6.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 7 to 7.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 8 to 8.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 9 to 9.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 10 to 10.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 11 to 11.5 yrs plus ..	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Steers 12 to 18 months	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Steers 2 years to 30 months	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Bullocks 3 to 3.5 years ...	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Bullocks 4 to 4.5 years ...	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Bullocks 5 to 5.5 years ...	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50

TABLE 3 - SALES COMMISSION *(% of Gross Value)*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Heifer weaners	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Heifers 12 to 18 months ...	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Heifers 2 yrs to 30 months	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 3 to 3.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 4 to 4.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 5 to 5.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 6 to 6.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 7 to 7.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 8 to 8.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 9 to 9.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 10 to 10.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 11 to 11.5 yrs plus ..	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Spayed cows	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Steer weaners	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Steers 12 to 18 months	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Steers 2 years to 30 months	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bullocks 3 to 3.5 years ...	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bullocks 4 to 4.5 years ...	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bullocks 5 to 5.5 years ...	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bullocks 6 to 6.5 yrs plus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Culled herd bulls	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%

TABLE 4 - OTHER SELLING COSTS/HEAD *(Excluding commisssion % - do not include GST)*

Selling costs charged per hd	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40
Heifers 12 to 18 months ...	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Heifers 2 yrs to 30 months	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 3 to 3.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 4 to 4.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 5 to 5.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 6 to 6.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 7 to 7.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 8 to 8.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 9 to 9.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 10 to 10.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 11 to 11.5 yrs plus ..	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50
Steers 12 to 18 months	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Steers 2 years to 30 months	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Bullocks 3 to 3.5 years ...	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Bullocks 4 to 4.5 years ...	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00

TABLE 5 - FREIGHT COST/HEAI*(Do not include GST)*

Freight cost/head	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifers 12 to 18 months ...	$1.97	$1.97	$1.97	$1.97	$1.97	$1.97	$1.97	$1.97	$1.97	$1.97
Heifers 2 yrs to 30 months	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50
Cows 3 to 3.5 years	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68
Cows 4 to 4.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 5 to 5.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 6 to 6.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 7 to 7.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 8 to 8.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 9 to 9.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 10 to 10.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 11 to 11.5 yrs plus ..	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steers 12 to 18 months	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10
Steers 2 years to 30 months	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50
Bullocks 3 to 3.5 years ...	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00
Bullocks 4 to 4.5 years ...	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17

TABLE 6 - TOTAL SELLING AND FREIGHT COST/HEAD

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$8.28	$8.28	$8.28	$8.28	$8.28	$8.28	$8.28	$8.28	$8.28	$8.28
Heifers 12 to 18 months ...	$24.22	$24.22	$24.22	$24.22	$24.22	$24.22	$24.22	$24.22	$24.22	$24.22
Heifers 2 yrs to 30 months	$29.30	$29.30	$29.30	$29.30	$29.30	$29.30	$29.30	$29.30	$29.30	$29.30
Cows 3 to 3.5 years	$31.43	$31.43	$31.43	$31.43	$31.43	$31.43	$31.43	$31.43	$31.43	$31.43
Cows 4 to 4.5 years	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38
Cows 5 to 5.5 years	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38
Cows 6 to 6.5 years	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38
Cows 7 to 7.5 years	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38
Cows 8 to 8.5 years	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38
Cows 9 to 9.5 years	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38
Cows 10 to 10.5 years	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38
Cows 11 to 11.5 yrs plus ..	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38	$31.38
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$9.12	$9.12	$9.12	$9.12	$9.12	$9.12	$9.12	$9.12	$9.12	$9.12
Steers 12 to 18 months	$26.85	$26.85	$26.85	$26.85	$26.85	$26.85	$26.85	$26.85	$26.85	$26.85
Steers 2 years to 30 months	$34.75	$34.75	$34.75	$34.75	$34.75	$34.75	$34.75	$34.75	$34.75	$34.75
Bullocks 3 to 3.5 years ...	$42.75	$42.75	$42.75	$42.75	$42.75	$42.75	$42.75	$42.75	$42.75	$42.75
Bullocks 4 to 4.5 years ...	$50.85	$50.85	$50.85	$50.85	$50.85	$50.85	$50.85	$50.85	$50.85	$50.85
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92

TABLE 7 - GROSS PRICE/HEAD *(Calculated)*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$195.00	$195.00	$195.00	$195.00	$195.00	$195.00	$195.00	$195.00	$195.00	$195.00
Heifers 12 to 18 months ...	$325.00	$325.00	$325.00	$325.00	$325.00	$325.00	$325.00	$325.00	$325.00	$325.00
Heifers 2 yrs to 30 months	$416.00	$416.00	$416.00	$416.00	$416.00	$416.00	$416.00	$416.00	$416.00	$416.00
Cows 3 to 3.5 years	$455.00	$455.00	$455.00	$455.00	$455.00	$455.00	$455.00	$455.00	$455.00	$455.00
Cows 4 to 4.5 years	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
Cows 5 to 5.5 years	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
Cows 6 to 6.5 years	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
Cows 7 to 7.5 years	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
Cows 8 to 8.5 years	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
Cows 9 to 9.5 years	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
Cows 10 to 10.5 years	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
Cows 11 to 11.5 yrs plus ..	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$225.00	$225.00	$225.00	$225.00	$225.00	$225.00	$225.00	$225.00	$225.00	$225.00
Steers 12 to 18 months	$375.00	$375.00	$375.00	$375.00	$375.00	$375.00	$375.00	$375.00	$375.00	$375.00
Steers 2 years to 30 months	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00	$525.00
Bullocks 3 to 3.5 years ...	$675.00	$675.00	$675.00	$675.00	$675.00	$675.00	$675.00	$675.00	$675.00	$675.00
Bullocks 4 to 4.5 years ...	$825.00	$825.00	$825.00	$825.00	$825.00	$825.00	$825.00	$825.00	$825.00	$825.00
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00

TABLE 8 - NET PRICES FORMATTED FOR DYNAMA

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifer weaners	$187	$187	$187	$187	$187	$187	$187	$187	$187	$187
Heifers 12 to 18 months ...	$301	$301	$301	$301	$301	$301	$301	$301	$301	$301
Heifers 2 yrs to 30 months	$387	$387	$387	$387	$387	$387	$387	$387	$387	$387
Cows 3 to 3.5 years	$424	$424	$424	$424	$424	$424	$424	$424	$424	$424
Cows 4 to 4.5 years	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 5 to 5.5 years	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 6 to 6.5 years	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 7 to 7.5 years	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 8 to 8.5 years	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 9 to 9.5 years	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 10 to 10.5 years	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Cows 11 to 11.5 yrs plus ..	$419	$419	$419	$419	$419	$419	$419	$419	$419	$419
Spayed cows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steer weaners	$216	$216	$216	$216	$216	$216	$216	$216	$216	$216
Steers 12 to 18 months	$348	$348	$348	$348	$348	$348	$348	$348	$348	$348
Steers 2 years to 30 months	$490	$490	$490	$490	$490	$490	$490	$490	$490	$490
Bullocks 3 to 3.5 years ...	$632	$632	$632	$632	$632	$632	$632	$632	$632	$632
Bullocks 4 to 4.5 years ...	$774	$774	$774	$774	$774	$774	$774	$774	$774	$774
Bullocks 5 to 5.5 years ...	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 6 to 6.5 yrs plus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Culled herd bulls	$916	$916	$916	$916	$916	$916	$916	$916	$916	$916

TABLE 9 - SPAY PRICES FOR BCOWPLUS

Sale Age for Spays ...	1	2	3	4	5	6	7	8	9	10	11
Weight/hd (kg) ...	0	0	0	0	0	0	0	0	0	0	0
Price/kg	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Commisssion %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other sell cost/hd	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Freight/hd	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Gross price/hd ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total sell and frt	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Net price/hd	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Double click here to copy weight, price and cost details from entire females to spays.

TABLE 10 - NET PRICES FORMATTED FOR BREEDCOW AND BCOWPLUS

Sale Age	Weaners	1	2	3	4	5	6	7	8	9	10	11
Heif/cows	$187	$301	$387	$424	$419	$419	$419	$419	$419	$419	$419	$419
Spays ...	na	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steers ..	$216	$348	$490	$632	$774	$0	$0	na	na	na	na	na

Cull bulls (no distinction on age) . $916

FREIGHT AND SELLING COSTS- *Source for loading density: Kaus, Lapworth and Dunn "Marketing Cattle to South-East Asia"*

Average Liveweight	Head Per 12.2m deck
250	38
300	34
350	30
400	28
450	26
500	24
550	22
600	20
650	18

"Suggested loading densities are included as a guide only. The numbers carried will be influenced particularly by the size and condition of the cattle, whether they are horned or dehorned, and the distance to be travelled."

Transport cost $/deck/km ..	$1.50
Distance (km)	50
Number of head per deck	18
Freight cost/head ...	$4.17

Transaction levy (September 1997):

Cattle 80 kg and over $/Hd.	$3.50
Bobbies under 80 kg . $/Hd.	$0.90
Commission - paddock sales ...	2.50%
Commission - saleyard	5.00%

Yard dues?
Weighing fees?
Dipping?
Tail tags?
Feed in yards?

PRICES - Net Price Calculator for Breedcow, Bcowplus & Dynama Version 5.036

Devised by W.E.Holmes, QDPI, Townsville, Qld.

Name: *Prices transition from uncleared to cleared*
Date: *February 2002*
File: C:\HBVISUAL\PRICES\PRLKCH02.BDT

Note: This worksheet calculates net sale prices for BREEDCOW, BCOWPLUS and DYNAMA. Use PRICES to calculate net prices, then save the PRICES data. To access this data from within BREEDCOW, BCOWPLUS or DYNAMA, select File menu item, then Transfer Prices, and nominate the filename under which the price data was saved.

BREEDCOW and BCOWPLUS price data is the same as DYNAMA Yr 1 data.

Enter Starting Year: 2002 ***[Four digits - can represent calendar or financial year, e.g. 2003 can be financial 2002-2003]***

TABLE 1 - WEIGHT/HEAD ***(Can be live or dressed weights)***

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	0	0	0	0	0	0	0	0	0	0
Heifer weaners	150	160	170	180	180	180	180	180	180	180
Heifers 12 to 18 months ...	250	260	270	280	280	280	280	280	280	280
Heifers 2 yrs to 30 months	320	330	340	350	350	350	350	350	350	350
Cows 3 to 3.5 years	350	370	370	380	380	380	380	380	380	380
Cows 4 to 4.5 years	375	390	400	400	400	400	400	400	400	400
Cows 5 to 5.5 years	375	385	395	410	425	425	425	425	425	425
Cows 6 to 6.5 years	375	390	400	410	420	425	425	425	425	425
Cows 7 to 7.5 years	375	390	400	410	415	420	425	425	425	425
Cows 8 to 8.5 years	375	390	400	410	415	420	425	425	425	425
Cows 9 to 9.5 years	375	390	400	410	415	420	425	425	425	425
Cows 10 to 10.5 years	375	390	400	410	415	420	425	425	425	425
Cows 11 to 11.5 yrs plus ..	375	390	400	410	415	420	425	425	425	425
Spayed cows	0	0	0	0	0	0	0	0	0	0
Steer weaners	150	160	170	180	180	180	180	180	180	180
Steers 12 to 18 months	250	265	280	280	280	280	280	280	280	280
Steers 2 years to 30 months	350	365	380	380	380	380	380	380	380	380
Bullocks 3 to 3.5 years ...	450	465	480	480	480	480	480	480	480	480
Bullocks 4 to 4.5 years ...	550	565	580	580	580	580	580	580	580	580
Bullocks 5 to 5.5 years ...	0	0	0	0	0	0	0	0	0	0
Bullocks 6 to 6.5 yrs plus	0	0	0	0	0	0	0	0	0	0
Culled herd bulls	650	650	650	650	650	650	650	650	650	650

TABLE 2 - PRICE PER KG ***(Can be live or dressed weights - do not include GST)***

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30
Heifers 12 to 18 months ...	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30
Heifers 2 yrs to 30 months	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30
Cows 3 to 3.5 years	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30	$1.30
Cows 4 to 4.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 5 to 5.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 6 to 6.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 7 to 7.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 8 to 8.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 9 to 9.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 10 to 10.5 years	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Cows 11 to 11.5 yrs plus ..	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20	$1.20
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Steers 12 to 18 months	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Steers 2 years to 30 months	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Bullocks 3 to 3.5 years ...	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Bullocks 4 to 4.5 years ...	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50	$1.50

TABLE 3 - SALES COMMISSION *(% of Gross Value)*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Heifer weaners	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Heifers 12 to 18 months ...	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Heifers 2 yrs to 30 months	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 3 to 3.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 4 to 4.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 5 to 5.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 6 to 6.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 7 to 7.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 8 to 8.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 9 to 9.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 10 to 10.5 years	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Cows 11 to 11.5 yrs plus ..	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Spayed cows	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Steer weaners	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Steers 12 to 18 months	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Steers 2 years to 30 months	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bullocks 3 to 3.5 years ...	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bullocks 4 to 4.5 years ...	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Bullocks 5 to 5.5 years ...	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bullocks 6 to 6.5 yrs plus	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Culled herd bulls	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%

TABLE 4 - OTHER SELLING COSTS/HEAD *(Excluding commisssion % - do not include GST)*

Selling costs charged per hd	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40	$3.40
Heifers 12 to 18 months ...	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Heifers 2 yrs to 30 months	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 3 to 3.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 4 to 4.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 5 to 5.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 6 to 6.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 7 to 7.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 8 to 8.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 9 to 9.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 10 to 10.5 years	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Cows 11 to 11.5 yrs plus ..	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50	$3.50
Steers 12 to 18 months	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Steers 2 years to 30 months	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Bullocks 3 to 3.5 years ...	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Bullocks 4 to 4.5 years ...	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00	$6.00

TABLE 5 - FREIGHT COST/HEAI*(Do not include GST)*

Freight cost/head	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifers 12 to 18 months ...	$2.21	$2.21	$2.21	$2.21	$2.21	$2.21	$2.21	$2.21	$2.21	$2.21
Heifers 2 yrs to 30 months	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50
Cows 3 to 3.5 years	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68	$2.68
Cows 4 to 4.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 5 to 5.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 6 to 6.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 7 to 7.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 8 to 8.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 9 to 9.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 10 to 10.5 years	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Cows 11 to 11.5 yrs plus ..	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88	$2.88
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steers 12 to 18 months	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10	$2.10
Steers 2 years to 30 months	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50	$2.50
Bullocks 3 to 3.5 years ...	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00	$3.00
Bullocks 4 to 4.5 years ...	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60	$3.60
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17	$4.17

TABLE 6 - TOTAL SELLING AND FREIGHT COST/HEAD

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$8.28	$8.60	$8.93	$9.25	$9.25	$9.25	$9.25	$9.25	$9.25	$9.25
Heifers 12 to 18 months ...	$24.46	$25.11	$25.76	$26.41	$26.41	$26.41	$26.41	$26.41	$26.41	$26.41
Heifers 2 yrs to 30 months	$29.30	$29.95	$30.60	$31.25	$31.25	$31.25	$31.25	$31.25	$31.25	$31.25
Cows 3 to 3.5 years	$31.43	$32.73	$32.73	$33.38	$33.38	$33.38	$33.38	$33.38	$33.38	$33.38
Cows 4 to 4.5 years	$31.38	$32.28	$32.88	$32.88	$32.88	$32.88	$32.88	$32.88	$32.88	$32.88
Cows 5 to 5.5 years	$31.38	$31.98	$32.58	$33.48	$34.38	$34.38	$34.38	$34.38	$34.38	$34.38
Cows 6 to 6.5 years	$31.38	$32.28	$32.88	$33.48	$34.08	$34.38	$34.38	$34.38	$34.38	$34.38
Cows 7 to 7.5 years	$31.38	$32.28	$32.88	$33.48	$33.78	$34.08	$34.38	$34.38	$34.38	$34.38
Cows 8 to 8.5 years	$31.38	$32.28	$32.88	$33.48	$33.78	$34.08	$34.38	$34.38	$34.38	$34.38
Cows 9 to 9.5 years	$31.38	$32.28	$32.88	$33.48	$33.78	$34.08	$34.38	$34.38	$34.38	$34.38
Cows 10 to 10.5 years	$31.38	$32.28	$32.88	$33.48	$33.78	$34.08	$34.38	$34.38	$34.38	$34.38
Cows 11 to 11.5 yrs plus ..	$31.38	$32.28	$32.88	$33.48	$33.78	$34.08	$34.38	$34.38	$34.38	$34.38
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$9.12	$9.50	$9.87	$10.25	$10.25	$10.25	$10.25	$10.25	$10.25	$10.25
Steers 12 to 18 months	$26.85	$27.98	$29.10	$29.10	$29.10	$29.10	$29.10	$29.10	$29.10	$29.10
Steers 2 years to 30 months	$34.75	$35.88	$37.00	$37.00	$37.00	$37.00	$37.00	$37.00	$37.00	$37.00
Bullocks 3 to 3.5 years ...	$42.75	$43.88	$45.00	$45.00	$45.00	$45.00	$45.00	$45.00	$45.00	$45.00
Bullocks 4 to 4.5 years ...	$50.85	$51.98	$53.10	$53.10	$53.10	$53.10	$53.10	$53.10	$53.10	$53.10
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92	$58.92

TABLE 7 - GROSS PRICE/HEAD *(Calculated)*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Heifer weaners	$195.00	$208.00	$221.00	$234.00	$234.00	$234.00	$234.00	$234.00	$234.00	$234.00
Heifers 12 to 18 months ...	$325.00	$338.00	$351.00	$364.00	$364.00	$364.00	$364.00	$364.00	$364.00	$364.00
Heifers 2 yrs to 30 months	$416.00	$429.00	$442.00	$455.00	$455.00	$455.00	$455.00	$455.00	$455.00	$455.00
Cows 3 to 3.5 years	$455.00	$481.00	$481.00	$494.00	$494.00	$494.00	$494.00	$494.00	$494.00	$494.00
Cows 4 to 4.5 years	$450.00	$468.00	$480.00	$480.00	$480.00	$480.00	$480.00	$480.00	$480.00	$480.00
Cows 5 to 5.5 years	$450.00	$462.00	$474.00	$492.00	$510.00	$510.00	$510.00	$510.00	$510.00	$510.00
Cows 6 to 6.5 years	$450.00	$468.00	$480.00	$492.00	$504.00	$510.00	$510.00	$510.00	$510.00	$510.00
Cows 7 to 7.5 years	$450.00	$468.00	$480.00	$492.00	$498.00	$504.00	$510.00	$510.00	$510.00	$510.00
Cows 8 to 8.5 years	$450.00	$468.00	$480.00	$492.00	$498.00	$504.00	$510.00	$510.00	$510.00	$510.00
Cows 9 to 9.5 years	$450.00	$468.00	$480.00	$492.00	$498.00	$504.00	$510.00	$510.00	$510.00	$510.00
Cows 10 to 10.5 years	$450.00	$468.00	$480.00	$492.00	$498.00	$504.00	$510.00	$510.00	$510.00	$510.00
Cows 11 to 11.5 yrs plus ..	$450.00	$468.00	$480.00	$492.00	$498.00	$504.00	$510.00	$510.00	$510.00	$510.00
Spayed cows	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Steer weaners	$225.00	$240.00	$255.00	$270.00	$270.00	$270.00	$270.00	$270.00	$270.00	$270.00
Steers 12 to 18 months	$375.00	$397.50	$420.00	$420.00	$420.00	$420.00	$420.00	$420.00	$420.00	$420.00
Steers 2 years to 30 months	$525.00	$547.50	$570.00	$570.00	$570.00	$570.00	$570.00	$570.00	$570.00	$570.00
Bullocks 3 to 3.5 years ...	$675.00	$697.50	$720.00	$720.00	$720.00	$720.00	$720.00	$720.00	$720.00	$720.00
Bullocks 4 to 4.5 years ...	$825.00	$847.50	$870.00	$870.00	$870.00	$870.00	$870.00	$870.00	$870.00	$870.00
Bullocks 5 to 5.5 years ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Bullocks 6 to 6.5 yrs plus	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Culled herd bulls	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00	$975.00

TABLE 8 - NET PRICES FORMATTED FOR DYNAMA

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New calves (mixed)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Heifer weaners	$187	$199	$212	$225	$225	$225	$225	$225	$225	$225
Heifers 12 to 18 months ...	$301	$313	$325	$338	$338	$338	$338	$338	$338	$338
Heifers 2 yrs to 30 months	$387	$399	$411	$424	$424	$424	$424	$424	$424	$424
Cows 3 to 3.5 years	$424	$448	$448	$461	$461	$461	$461	$461	$461	$461
Cows 4 to 4.5 years	$419	$436	$447	$447	$447	$447	$447	$447	$447	$447
Cows 5 to 5.5 years	$419	$430	$441	$459	$476	$476	$476	$476	$476	$476
Cows 6 to 6.5 years	$419	$436	$447	$459	$470	$476	$476	$476	$476	$476
Cows 7 to 7.5 years	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Cows 8 to 8.5 years	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Cows 9 to 9.5 years	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Cows 10 to 10.5 years	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Cows 11 to 11.5 yrs plus ..	$419	$436	$447	$459	$464	$470	$476	$476	$476	$476
Spayed cows	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steer weaners	$216	$230	$245	$260	$260	$260	$260	$260	$260	$260
Steers 12 to 18 months	$348	$370	$391	$391	$391	$391	$391	$391	$391	$391
Steers 2 years to 30 months	$490	$512	$533	$533	$533	$533	$533	$533	$533	$533
Bullocks 3 to 3.5 years ...	$632	$654	$675	$675	$675	$675	$675	$675	$675	$675
Bullocks 4 to 4.5 years ...	$774	$796	$817	$817	$817	$817	$817	$817	$817	$817
Bullocks 5 to 5.5 years ...	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Bullocks 6 to 6.5 yrs plus	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Culled herd bulls	$916	$916	$916	$916	$916	$916	$916	$916	$916	$916

TABLE 9 - SPAY PRICES FOR BCOWPLUS

Sale Age for Spays ...	1	2	3	4	5	6	7	8	9	10	11
Weight/hd (kg) ...	0	0	0	0	0	0	0	0	0	0	0
Price/kg	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Commisssion %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other sell cost/hd	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Freight/hd	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Gross price/hd ...	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total sell and frt	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Net price/hd	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Double click here to copy weight, price and cost details from entire females to spays.

TABLE 10 - NET PRICES FORMATTED FOR BREEDCOW AND BCOWPLUS

Sale Age	Weaners	1	2	3	4	5	6	7	8	9	10	11
Heif/cows	$187	$301	$387	$424	$419	$419	$419	$419	$419	$419	$419	$419
Spays ...	na	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Steers ..	$216	$348	$490	$632	$774	$0	$0	na	na	na	na	na

Cull bulls (no distinction on age) . $916

FREIGHT AND SELLING COSTS- *Source for loading density: Kaus, Lapworth and Dunn "Marketing Cattle to South-East Asia"*

Average Liveweight	Head Per 12.2m deck
250	38
300	34
350	30
400	28
450	26
500	24
550	22
600	20
650	18

"Suggested loading densities are included as a guide only. The numbers carried will be influenced particularly by the size and condition of the cattle, whether they are horned or dehorned, and the distance to be travelled."

Transport cost $/deck/km ..	$1.50
Distance (km)	50
Number of head per deck	22
Freight cost/head ...	$3.41

Transaction levy (September 1997):

Cattle 80 kg and over $/Hd.	$3.50
Bobbies under 80 kg . $/Hd.	$0.90
Commission - paddock sales ...	2.50%
Commission - saleyard	5.00%

Yard dues?
Weighing fees?
Dipping?
Tail tags?
Feed in yards?

INVESTAN - Investment analysis tool using Dynama data - Version 5.036

Devised by W.E.Holmes, QDPI, Townsville, Qld.

Name: *To delete entries overriding this message, highlight with*
Date: *cursor and click 'Restore formula ....' button on toolbar.*
File: C:\HBVISUAL\INVESTAN\INLAKEO2.BDT

Procedure: 1. Run "do nothing" scenario in DYNAMA and transfer to INVESTAN
2. Run change option in DYNAMA and transfer to INVESTAN
3. Differences, NPV and IRR of change option relative to "do nothing" will be calculated

InvestAn may optionally be run for either
For 20 year analysis, Dynama files will b
The presence of data for yrs 11-20 will e

"Do nothing" Dynama filename: *C:\HBVISUAL\DYNAMA\LAKENO02.BDT* *Path and name of Dynama file used for*
"Change option" Dynama filename: *C:\HBVISUAL\DYNAMA\LAKECL02.BDT* *Path and name of Dynama file used for*

Start month-year: *Jan-2002* ***Three letters, minus (-) and four digits - will be transferred from DYNAMA "do nothing".***

Year label	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cash flow for debt service from DYNAMA "do nothing" ..	$71,011	$30,058	$35,618	$40,373	$56,087	$90,288	$110,726	$123,030	$129,489	$131,385
Cash flow for debt service from DYNAMA "change"	$1,065	-$54,384	-$47,072	-$45,587	-$20,969	$166,447	$261,995	$331,998	$380,669	$405,481
Cash improvement on "do nothing"	-$69,946	-$84,441	-$82,690	-$85,959	-$77,056	$76,159	$151,270	$208,968	$251,180	$274,096

Final year closing total non-cash assets "do nothing"	$2,913,635
Final year closing total non-cash assets for "change"	$4,342,523
Terminal asset improvement "change" vs "do nothing"	$1,428,887
Total improvement "change" vs "do nothing"	-$69,946 -$84,441 -$82,690 -$85,959 -$77,056 $76,159 $151,270 $208,968 $251,180 $1,702,983
Interest rate for NPV	10.00%
NPV of "Change" advantage	$679,142
Annualised return (profit/yr for analysis period)	$110,527
Period of analysis (10 yrs or 20 yrs)	10
Peak deficit (with interest)	Click IRR
Year of peak deficit	Click IRR
IRR of "Change" advantage	Click IRR

Double click here to calculate IRR, Peak Deficit and Year of Peak Deficit

Note: 1. "Do nothing" and "change option" DYNAMA files must be exactly the same at the start of the first year of the analysis (herd, asset values and loans).

2. Costs, capital expenditure and other entries for receipts and outlays must be the same for the change option as for "do nothing" except where the changed entry is required for the change option.

3. DYNAMA files used for data transfer to INVESTAN must have been saved in DYNAMA V5.032 or later. Older files may be made suitable by loading and resaving in DYNAMA V5.032 or later.