

## **PASTORAL LAND BOARD**

*Pastoral Land Act – section 38(1)(h)*

# **CONSENT TO CLEAR PASTORAL LAND**

**PERMIT NUMBER: PLC06/2**

## **DESCRIPTION OF LAND THE SUBJECT OF THE PERMIT**

Station Name: Neutral Junction  
Pastoral Lease No: PPL 969  
NT Portion: 3375  
Pastoral District: Northern Alice Springs Pastoral District

## **DETAILS OF APPROVED CLEARING**

The Pastoral Land Board on 15 December 2005 granted consent to the selective clearing of dense stands of *Acacia* and *Senna* shrubs within an area of approximately 420 hectares for the purposes of reducing shrub dominance, in accordance with the attached schedule of conditions and the endorsed plans.

## **REASONS FOR DECISION**

1. The application is in accordance with the Land Clearing Guidelines 2002.
2. Soil types in the areas approved for clearing are suitable for selective clearing and pastoral land use.
3. The property management plan for land clearing development addresses relevant resource management issues.

## **PERIOD OF THE PERMIT**

This permit will lapse if clearing has not commenced within 3 years and/or has not been completed within 5 years of the date of this permit; and the lessee will need to seek an extension of time from the Pastoral Land Board to complete the clearing.



J B Forwood AM  
Chairman  
Pastoral Land Board  
8/2/2006

## CONSENT TO CLEAR PASTORAL LAND

### PERMIT NUMBER: PLC06/2 SCHEDULE OF CONDITIONS

1. Clearing carried out under this permit shall be in accordance with drawing number 06/969/1 endorsed as forming part of this permit, to the satisfaction of the Chairman Pastoral Land Board.
2. Selective clearing is to be limited to dense stands of *Acacia* and *Senna* shrubs, and all tree species, palatable woody species and isolated shrubs scattered throughout the area are to be retained, to the satisfaction of the Chairman, Pastoral Land Board
3. A buffer zone of intact vegetation is to be left along the entire length of watercourses to a minimum width of 50 metres adjacent to drainage lines, 100 metres adjacent to creeks and 250 metres adjacent to rivers. Buffer widths should protect all riparian vegetation associated with the watercourses and flood-out areas, to the satisfaction of the Chairman, Pastoral Land Board.
4. The lessee shall prepare an Erosion and Sediment Control Plan (ESCP) in consultation with officers of the Advisory and Regulatory Services Branch, Department of Natural Resources, Environment and the Arts, prior to the commencement of clearing works. The ESCP shall address the construction and placement of any new tracks in the holding paddock, erosion prevention and drainage works, creek crossings and the determination of all exclusion and buffer zones.
5. All clearing is to be carried out on the contour, to the satisfaction of the Chairman, Pastoral Land Board.
6. Areas of rock outcrops and stone arrangements are not to be cleared and are to be avoided during clearing procedures and any construction works carried out.
7. The lessee shall seek advice from the Aboriginal Areas Protection Authority, prior to the commencement of clearing works, regarding the extent and exact location of the recorded sacred sites located within the area proposed for clearing.
8. Clearing and ongoing resource management shall be in accordance with the Property Management Plan for Land Clearing Development endorsed as forming part of this permit, to the satisfaction of the Chairman, Pastoral Land Board.
9. Erosion control shall be in accordance with the approved Erosion and Sediment Control Plan as required under Condition 4, to the satisfaction of the Chairman, Pastoral Land Board.
10. The Director Rangelands Management Branch, Department of Natural Resources, Environment and the Arts, is to be notified before the commencement of clearing and on completion of the clearing development.

### APPEAL

Under section 119 of the *Pastoral Land Act*, a pastoral lessee who is dissatisfied with a decision of the Pastoral Land Board may appeal to the Pastoral Land Appeal Tribunal against the decision of the Board. Appeals may be lodged with the Registrar of the Appeal Tribunal within 28 days of notification of the decision of the Board.



J B Forwood AM  
Chairman  
Pastoral Land Board

## NOTES:

1. The Aboriginal Areas Protection Authority recommends that the pastoral lessee obtain an Authority Certificate to indemnify against prosecution under the *Aboriginal Sacred Sites Act 1989*.
2. The permit holder is advised that there are statutory obligations under the *Weeds Management Act 2001* to take all practical measures to manage weeds on the property. For advice on weed management please phone (08) 8973 8110.
3. Fire prevention measures are to be implemented in accordance with the requirements of the *Bushfires Act*. Permits must be obtained from the Regional Fire Control Officer of the Department of Natural Resources, Environment and the Arts (telephone 89 760321) before ignition of any felled timber in this area.
4. The *Heritage Conservation Act 1991* protects archaeological places and objects, regardless of the level of documentation that the Heritage Conservation Services, Department of Natural Resources, Environment and the Arts has of such sites. It is an offence to undertake work on a place or object without the consent of the Minister for Natural Resource, the Environment and Heritage.
5. It is the responsibility of the pastoral lessee to refer the proposed development to the Commonwealth Department of the Environment and Heritage under the *Environment Protection and Biodiversity Conservation Act* should they believe the proposed development may have a significant impact on a matter of national environmental significance as outlined in that legislation.



J B Forwood AM  
Chairman  
Pastoral Land Board

8/2/2006



CHAIRMAN  
PASTORAL LAND BOARD

## **Pastoral Lease No: PPL 969 Neutral Junction Property Management Plan for Land Clearing Development**

### **1. Overview of Proposed Clearing & Whole Property Development**

**Details of the natural resources (native vegetation, pastures, soils, waters, average rainfall) and status (is native vegetation stable, land condition and weed status).**

There is 1:100,000 scale land resource mapping available for the area proposed to be selectively cleared.

Land Unit 7-2 is described by Edgoose and Lehmann (1996) as minor creeks and associated floodplains in mulga and hill country with open ironwood over annual grasses. There are sandy loam textured alluvial soils susceptible to wind erosion when the pasture ground cover is sparse. Both the main access road and the existing fence are perpendicular to the flow of water to reduce erosion risk.

The pastoral productivity of 7-2 is high with pastures of good quality, attractive to stock. The most productive species are oatgrass, button, curly windmill, buffel and the short-lived eight day and five-minute grasses. The abundance of oatgrass and other palatable grasses may decline if there is prolonged heavy grazing pressure. Moderate utilisation and periodic spelling is therefore desirable. This land unit is subject to occasional flooding and watering points or other improvements would be better located elsewhere. Woody weeds may become a problem along these creek-lines.

Land Unit 5-6 is relatively thick grove mulga country supporting woolly-butt, bunched kerosene, and cotton panic grasses. Generally, this type of country has a low erosion potential, however storm runoff may initiate minor rilling where surface flows are concentrated by graded tracks or similar earthworks. Tracks should be formed with minimal disturbance to the surface soil. Only vegetation (not soil) should be scraped away and the formation of windrows should be avoided as they concentrate the surface water flow.

Pasture productivity of Unit 5-6 is low to moderate. The most dominant grasses include woolly-butt and bunched kerosene grass which are high in bulk, but have a low grazing value. Palatable species (such as cotton panic, oatgrass and five-minute grass) will be selectively grazed and may decrease in abundance under heavy grazing pressure. The scatterings of silky bluebush which although not keenly grazed do, however, form a useful drought forage. Hot summer wildfires tend to promote a dense growth of unpalatable wiregrass which has no grazing value. Moderate grazing pressures and summer spelling should ensure the longevity of the palatable grasses.

**How does the proposed clearing development fit into the long term aims for the property?**

The selective clearing development will provide a fenced short-term grazing area providing better control of cattle and the education of weaner cattle. After the selective clearing has been completed, a water-point will be established in a central, stable area of the development area, possibly by piping water from the Neutral Junction homestead.

The proposed development is a key part of the overall property plan for Neutral Junction, which includes spreading grazing pressure to more areas of the station, by piping and opening new waters and by fencing. The long term aim is to have enough grazing options to be able to spell areas for significant periods, thereby maintaining native pasture health and vigour.

Achieving this type of grazing control with ever-decreasing staff resources requires suitable cattle handling and holding facilities, and it is envisaged cattle will move through the proposed holding paddock prior to being trucked off, or before moving to different parts of the property.

**Number of cattle currently carried and proposed final number of cattle to be carried on the property following completion of the clearing development.**

Neutral Junction Station currently runs approximately 6,500 head. There will be no increase as a result of this development.

## **2. Cost and Benefit of Development**

**Cost of the proposed clearing development; total, per ha or km<sup>2</sup>.**

The estimated cost of the selective clearing project is \$50 per hectare, or approximately \$25,000.

**Annual cost of ongoing maintenance following completion of the clearing development per ha or km<sup>2</sup>.**

There are no identifiable ongoing annual costs associated with the clearing itself. Pastures will naturally re-seed and the highly episodic recruitment of shrubs in central Australia makes it impossible to know how many years or decades of benefit the clearing will provide.

**Projected increase in carrying capacity following completion of the clearing development (per km<sup>2</sup> and total for the clearing project).**

Not applicable. The development will not increase carrying capacity.

### **Projected increased annual income from the clearing development; per ha or km<sup>2</sup>.**

It is not possible to project an annual income from the development as the benefits are hard to value in purely financial terms. However increased productivity and cost savings will come from a safer, more efficient, cattle handling system. This cleared area will allow newly weaned stock to be observed and animal husbandry problems identified. Improved access for fire management close to the homestead will reduce anxiety during the summer months.

## **3. Details of Proposed Clearing**

**Areas not to be cleared due to natural resource limitations (slope, rock outcrop, seasonal inundation, poor soils, highly erodable soils, watercourse and drainage line buffers and native vegetation strips to be retained for soil and drainage management).**

- Buffer zones extending 50-100m from the banks of the two second and third-order drainage-lines in the development area will be left untouched by selective clearing.
- Selective clearing will only begin 50m south of, and parallel to, the main access road into Neutral Junction and fencelines to provide access corridors and shelter belts for native fauna and other livestock.
- No rocky outcrops are expected in the development area, but would certainly be avoided.
- Slope is minimal over the area to be selectively cleared (<1%), and development of gully erosion is not expected. The area will not be utilised by cattle as a holding paddock until other infrastructure is developed, which will assist natural regeneration of ground cover.

**Areas not to be cleared due to environmental and heritage considerations identified in Section II on the application form. Areas to be retained for wildlife corridors.**

Two fairly well defined drainage lines will be left untouched, with 50-100m buffer zones, which will double as wildlife corridors. However, large trees and shrubs will also be left throughout the development area, providing focal points for wildlife.

**Details of clearing method, technique & timing of each stage (eg chaining, windrowing, raking, burning, pin wheel rake, site preparation).**

A stick-raking blade on a D6 tractor will be used, which will, by its mechanism, leave some vegetation intact. This machinery has also been chosen as it will remove the vegetation but not deep rip the soil, which is unnecessary in the land types involved. Care will be taken to not leave soil windrows by using a cross-hatching approach. Operations will begin as small-scale selective clearing, and work will be monitored as it progresses, particularly after rainfall.

Cattle won't be present in any numbers in the newly created holding paddock until it is fenced and water is supplied, which will be some time after selective clearing is complete. This will give native pasture plants a chance to establish and set seed.

#### **Details of waterway establishment, graded banks and other earthworks for run off management and infrastructure development.**

Establishment of waterways or earth structures to manage excess run-off are not envisaged for this project. Existing identifiable drainage lines will be left with a minimum 50-100m buffer zone from each bank, in accordance with the NTG technical guidelines for land clearing.

Water movement will be closely monitored after rainfall in areas that have been selectively cleared, and any evidence of water erosion will be dealt with quickly and appropriately, using perpendicular check banks at appropriate intervals. The selective clearing will initially be in small sections, to monitor progress and effects of the work done.

A cleared line, one or two blades wide, will be established 50m south of, and parallel to, the main access road for the fence to be constructed, and best practice methods will be used here also, i.e. nil windrows left and no grading across the one creek-line crossing.

A water-point will be established in the new holding paddock created. It will be located in the more resilient mulga country.

#### **Details of pasture establishment and development methods (species, sowing rates, sowing methods, fertiliser regimes).**

Native pasture species will be left to re-establish themselves with less competition for water and nutrients after the selective clearing of the area.

### **4. Ongoing Resource Management**

#### **Grazing regimes and pasture management plan (periods of stocking, stocking rates, spelling, fertiliser and woody regrowth management)**

The paddock will be used as a holding paddock for short duration grazing by cattle. Most cattle work will be carried out during the cooler, drier months and the paddock is likely to be spelled when summer rains occur.

It is impossible to say whether there will be much woody re-growth in the proposed development. The main shrubs targeted (mulga, cassia, witchetty bush) do not sucker and would have to re-grow from seed. The aim is not to eliminate these shrubs, but to thin the denser stands which have progressively restricted access in recent decades.

Whitewood (*Atalaya hemiglauca*) is very prevalent and it is a desirable top-feed species with an upright growth habit and softer foliage. Larger whitewoods will be left, but some smaller trees may be cleared amongst other shrubs, and the sucker regrowth from these will be encouraged.

**Weed Management Plan (to include weed species present, area of weeds, areas at risk, control measures proposed, including measures to prevent new weed infestations)**

Preliminary advice was sought from Chris Brown, Regional Weeds Officer, who confirmed there were no specific weed management issues in the area planned for development. A weeds survey by officers from Alice Springs or Tennant Creek will be requested before and/or after the proposed work.

Based on the NT Noxious Weeds Act, there are no known Class “A” weeds (ie. to be eradicated) present in the development area. Neither are there any known Class “B” weeds but it is understood that rubber bush (*Calotropis procera*), Mexican poppy (*Argemone ochroleuca*), Parkinsonia (*Parkinsonia aculeata*), and perhaps a few other weeds do occur on properties in the Tennant Creek pastoral district.

It is expected that after selective clearing, native species will quickly establish following rainfall, including button grass, tick-weed, mulga grasses, tar vine, etc., and these native plants will assist excluding potential weed species.

The weed management plan for the proposed development is to:

1. Look for any weed species during selective clearing operations. If weeds such as rubber-bush or Parkinsonia are identified, their positions will be noted and the plants will be left in situ for treatment and any follow-up work.
2. Regularly monitor the selectively cleared area for weed incursions when mustering and when driving in and out the main access road into Neutral Junction. This is especially important for roadside species such as noogoora burr and saffron thistle.
3. Generally abide by conditions in the NT Noxious Weeds Act.

**Exotic Pasture Species Management Plan (to include details of exotic pasture species and areas planted. Buffer zones around exotic pasture species, location of watercourses, measures proposed to prevent spread to non target areas, grazing systems, location of fences & watering points)**

On Neutral Junction buffel grass is largely restricted to alluvial and/or calcareous soils where higher nutrient levels are available. Virtually all creek-lines on the property have buffel grass lining their banks, from 1<sup>st</sup> order streams to major creeks and waterholes.

It is believed that buffel grass has already spread to all of its most preferred habitats, both within the development zone, and in the surrounding areas, and that this project will have no bearing on it's future ability to colonise new areas. The work being proposed may well spread buffel grass to other areas within the development zone, perhaps on machinery, and perhaps due to the flux of nutrients created by soil disturbance. However, it is expected that its presence will be short-lived in those micro-habitats that don't provide high enough ongoing nutrient supply.

It is native grasses upon which overall productivity substantially depends across all grazed areas of the property.



### **Fire Management Plan (use of fire for management and protection from wildfires).**

It is hoped, but not guaranteed, that native pasture plants will increase following selective clearing, and this can lead to higher ground fuel loads, more likely to carry fire.

There is great danger operating a grader or fire unit in thick scrub with a fire approaching, particularly from staked tyres or breakdown.

The proposed development will improve fire management by:

1. Creating greater visibility for observing fire movement and behaviour.
2. Creating an area of relatively clear ground where fires can be approached more safely and firebreaks can be constructed.
3. Allowing better control on grazing through fencing, so that high fuel loads may be reduced with a pulse of grazing pressure at critical times.

### **Native Vegetation Management Plan (prevention of degradation to remaining native vegetation, including native vegetation buffers).**

The project involves altering the mid-storey structure of native vegetation over a very small area, surrounded by vast tracts of similar intact native vegetation. The vegetation in the development area will remain native. The project will take pressure of native vegetation in the area and particularly sensitive vegetation along the major creeks in the area.

### **Erosion and Sediment Control Plan (erosion prevention and strategies for rehabilitation if erosion occurs).**

The area chosen for the holding paddock is very flat. Examination of the 1992 aerial photo shows that the first-order streams coming off slopes outside the development area actually flood-out as they pass through the area proposed for selective clearing, further confirming very minimal slope. The catchments of the drainage lines appear to be very small, running from the north facing slopes of the Barrow Creek plateau.

By maintaining 50m buffer zones on the more well-defined drainage lines and along the roadway, erosion, and sediment control will be greatly assisted.

The strategies to prevent erosion involved with this project include:

- Choosing an area with very small catchment
- Using known slope map to determine best location
- Choosing an area where small streams flood-out, further confirming flatness
- Maintaining 25m buffer strips along watercourses
- Retaining trees and isolated shrubs throughout
- Using selective clearing techniques only
- Increased ground cover vegetation by reduced shrub competition
- Cross-hatching approach to machinery operation
- Windrows from machinery to be avoided
- Minimal soil disturbance techniques (stick raking)

- Staying well away (50m) from roadside areas, and existing fence-lines
- Intermittent grazing only, including summer spelling

If water erosion does develop, banks will be placed across channels perpendicular to the flow of water at appropriate intervals, and the area will be monitored until stable.

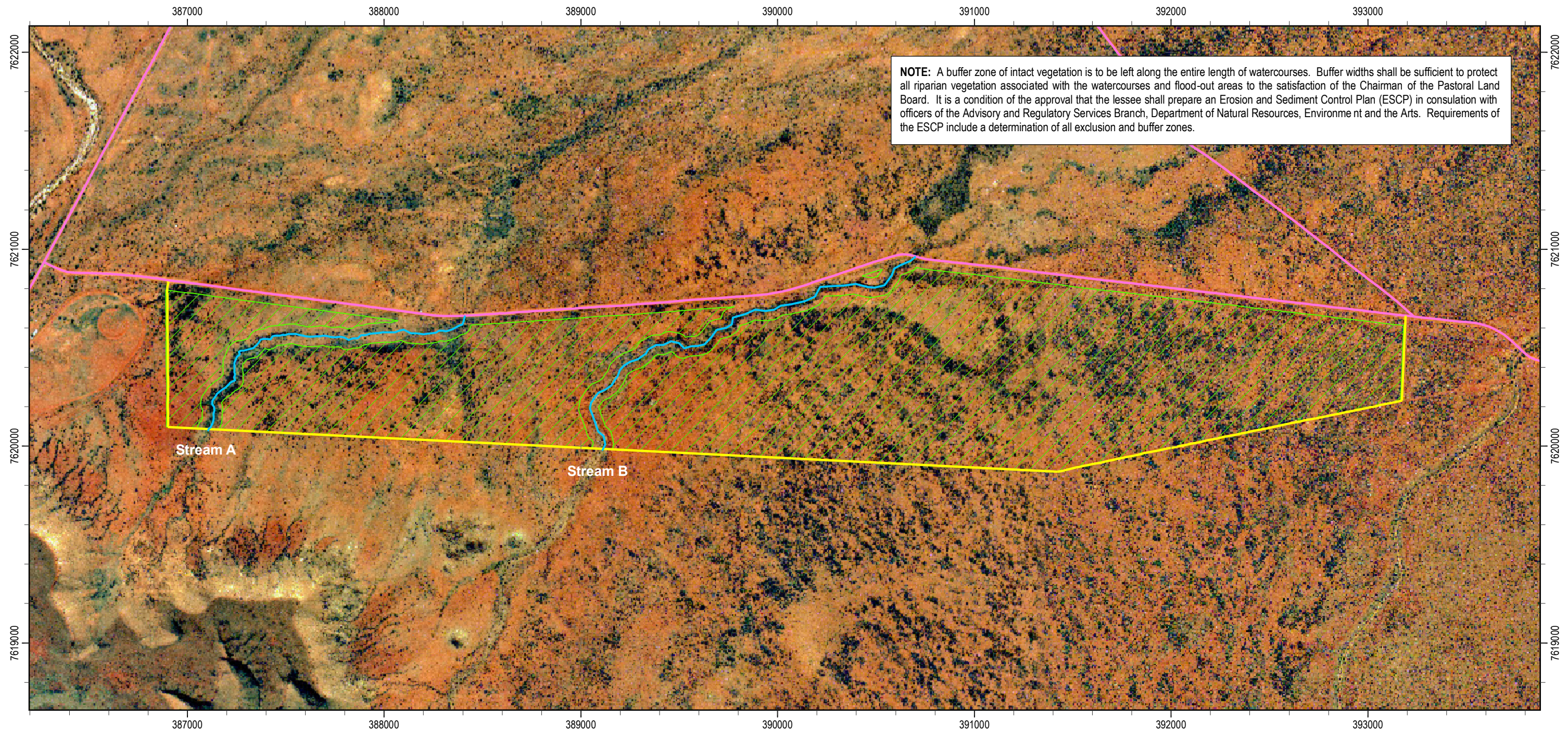
### **Feral Animal Management Plan**

There are few feral animal problems in the area proposed for selective clearing. Feral cats are prevalent as everywhere in Australia. We are unsure about foxes, but there are no rabbits, camels, donkeys, or horses in the area.

Native animal populations (dingo and kangaroo) may be more easily monitored due to greater visibility.

The feral animal management plan for Neutral Junction is simply to shoot or remove feral animals where located, and this applies to the proposed development area also.





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#### DATA SOURCE

##### Property Infrastructure:

Based on GPS point data collected by Dave Waterson, Jan 2006  
Advisory and Regulatory Services Branch, DNRETA, Alice Springs

##### Cleared Areas:

Proposed by applicant

##### Aerial Photograph:

NTc1195; Run 6, Frames 65, 66; Date 02.07.92; Scale 1:50,000

##### Map Produced by:

Spatial Data and Mapping Branch, DNRETA, Katherine

#### For further information contact

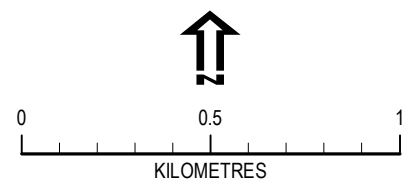
Director Rangelands Management Branch

Department of Natural Resources, Environment and the Arts

Phone: (08) 8999 4892, Fax: (08) 8999 4462


Plot file reference - Natural Resources, Katherine




NR06K003.pdf, Date 6 February, 2006



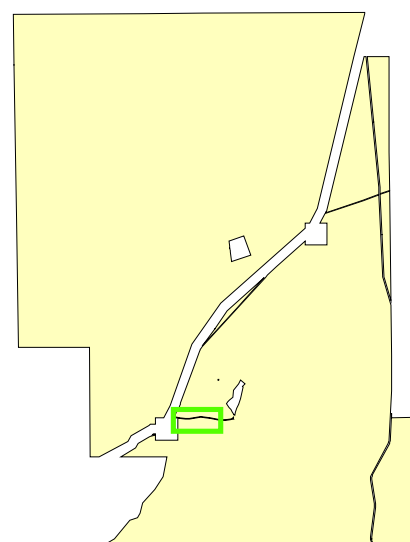
Map Grid of Australia (MGA) Zone 53  
Universal Transverse Mercator Projection  
Horizontal datum: Geocentric Datum of Australia (GDA) 1994

#### LEGEND

 Approved areas for clearing \*\*  
Based on a buffer width of 50m,  
the total area of clearing is 420.5ha

 Fenceline  
 Watercourse  
 Road / track

\*\* A buffer zone of 50 metres on watercourses is shown.  
This size is for display purposes only. Refer to NOTE on  
this map regarding the correct width of buffer zones.



MAP LOCATION OVER PROPERTY

**NEUTRAL JUNCTION  
PASTORAL LEASE  
NT Por 3375 PPL 969**

**AREAS APPROVED  
FOR CLEARING**

**Drawing No. 06 / 969 / 1**

**This is the drawing referred  
to in Pastoral Land Clearing**

**Permit No:** .....

**Issued on:** .....

CHAIRMAN, PASTORAL LAND BOARD



**Northern Territory Government**

Department of Natural Resources, Environment and the Arts