



DEPARTMENT
OF LANDS

THE GOVERNMENT OF SOUTH AUSTRALIA

Rangeland Assessment Unit



LEASE ASSESSMENT REPORT

Paney Station



LEASE ASSESSMENT REPORT

PANEY STATION

Land Assessments Branch,
Department of Lands,
Adelaide

Lib. no. 16/88

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INTRODUCTION

This report is written primarily for the Pastoralist and will also be referred to by the Pastoral Inspectors, Rangeland Assessment Unit and Pastoral Board. It acts to highlight land management issues on the Pastoral Lease concerned.

The report has been submitted to the Pastoral Board by the Department of Lands, Range Assessment Unit, under the requirement to report on the condition of pastoral leases, and has been compiled by Edwina Faithfull, Rangeland Officer. Field work was carried out between August and October 1987 by the author and Leath Stewart.

This report is complemented by 2 other documents both relating to pastoral leases on the Yardea 1:250,000 mapsheet. They are:

1. Land System Description of the Pastoral Lands on the Yardea 1:250,00 mapsheet. This report provides a broad description of landform, soil and vegetation of the mapsheet including the lease assessed herein.
2. Range Assessment Guidelines for the pastoral leases of Yardea 1:250,000 mapsheet. This outlines the procedures and concepts forming the basis of range assessment in the area and discusses land management problems in the various vegetation types.

Photopoints have been established in each paddock. These are pegged sites at which photographs are taken and vegetation measured. These will be revisited for the purposes of monitoring change to soil and vegetation. The photopoint sites are used to represent changes occurring in a particular land unit within a paddock. Information regarding changes to the rest of the paddock is attained from field notes taken, and from discussions of visits with the lessee.

Section 1 gives brief details on location, rainfall and lease tenure. Rainfall and tenure details are taken from Department of Lands records. Section 2 gives details of each paddock - landsystems, photopoints and range condition, watering points comments on use of the paddock, hazards to soil or vegetation, recommendations for management and an overall estimate of paddock condition.

Section 3 covers land management issues on the lease. This includes specific problems relating to use of the country for grazing. Recommendations are made where appropriate. These recommendations collate or summarize those made in the paddock assessment.

This report forms an assessment following the initial visits and installation of photopoint site for monitoring. Subsequent measurements may reveal new information leading to a revision of the initial condition ratings. Additional information including research or anecdotal evidence may also lead to a revision of recommendations or current condition assessments.

I would like to thank the lessees Mr. and Mrs. Lyall Barnes for their hospitality and helpful co-operation.

1. Location Rainfall and Tenure

Paney station is approximately 55 kms north of the Eyre Highway at Wudinna, and lies 310 km west of Port Augusta by road.

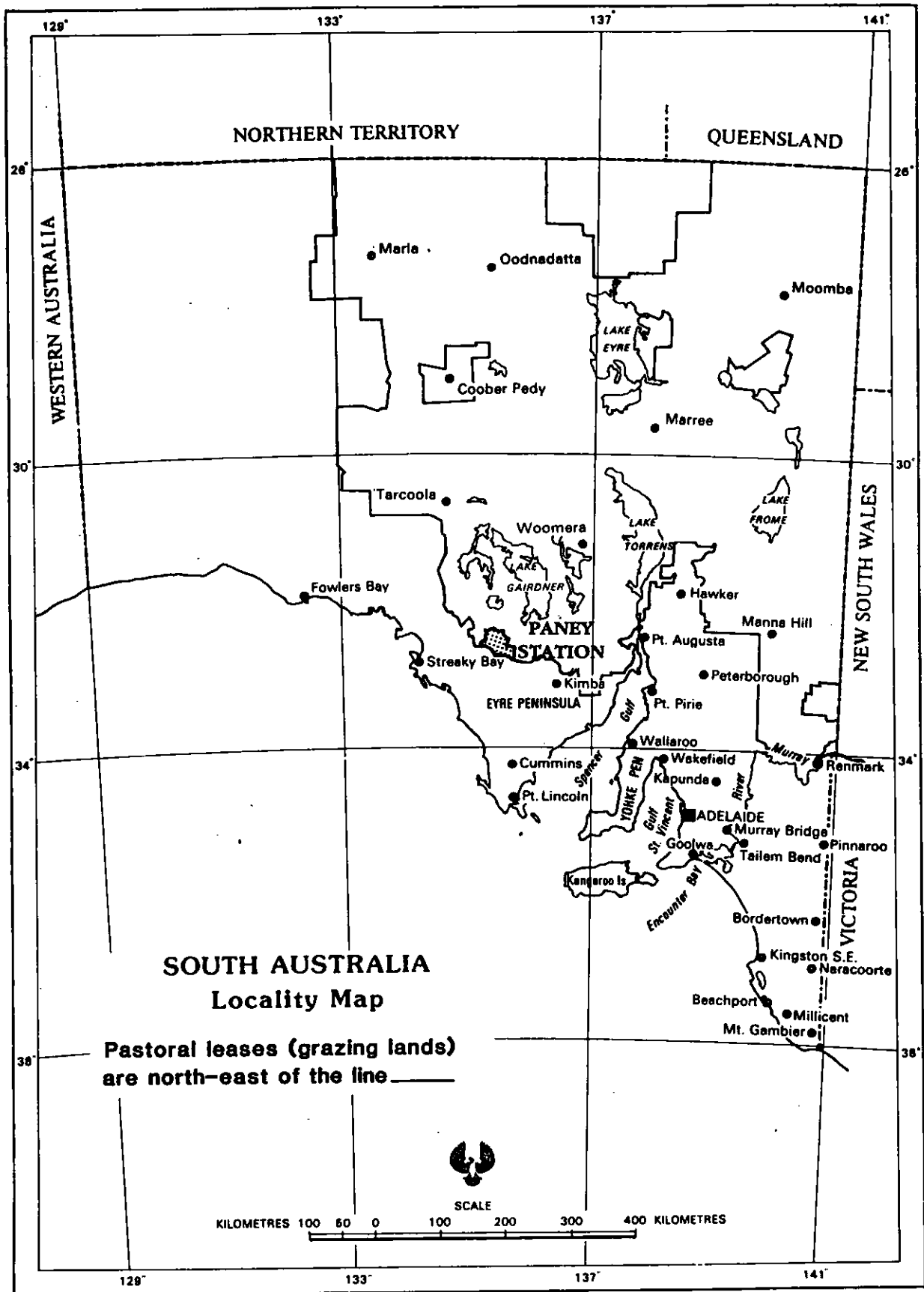
The neighbouring stations are Scrubby Peak to the west, Yardea to the north and Thurlga to the east. Pinkawillinie Conservation Park adjoins to the south and south east and a Miscellaneous Lease including Mt. Sturt lies to the south and south west. Map 1 illustrates location.

Tenure

<u>Lease Type</u>	<u>Lease No.</u>	<u>Area km²/mile²</u>	<u>Lease Term</u>	<u>Expiry Date</u>
Pastoral	2305A	1041/	42yrs	4/4/05

Rainfall

No rainfall data are available for Paney Station.



Map 1 Location of Paney Station

PADDOCK ASSESSMENT -PANEY

PADDOCK	WATER	LAND SYSTEM	P.P. AND CONDITION	DISTANCE (KM)	COMMENTS	HAZARDS	RECOMMENDATIONS	PADDOCK CONDITION ESTIMATE
Chillunie	Chillunie Well	Ebunbanie	1824 poor	1.5	- plant cover all annuals N of Chillunie Well - S of Chillunie Dam some Stipa providing greater stability in vegetation cover	- soil susceptible to erosion with dry season grazing especially around Chillunie Well	- grazing use of Chillunie Well limited to short term use when herbage growth is high	fair - poor
	Chillunie Dam	Ebunbanie	1842	1.5	- goats seasonally high numbers in these hills - scalding on annual flats in SW of paddock			
Conical Hill	Pondana Dam	Ebunbanie	1834 poor	1.5	- wild oats dominant species seasonal cover on flats - high litter cover improves stability here - high rabbit numbers in hills N of paddock - medic growth with winter rains	- soil erosion risk with drying off of wild oats and medic	- rabbit control needed in N of paddock	poor
Coolgundibbie H.P.	Coolgundibbie Tank, trough	Ebunbanie	1833 poor	1.5	- ground cover of annuals only - scalding present on flats N of tank - used as holding or water access paddock	- soil particularly susceptible to further erosion with drying off of annuals	- capable of sustaining grazing following good winter rain and high herbage growth only	poor
East Charba	Charba Well	Ebunbanie	1838 poor	1.6	- high production of annuals, including medics, with winter rain	- erosion risk in dry seasons due to short lived plants unstable soil cover	- pipe water out from Charba Well to relieve overuse of this corner, requires negotiation with Yardea lessee	fair - poor
	Kola Dam	Ebunbanie	1839 fair	1.5	- N of Kola Dam, speargrass provides more stable cover, less erosion here, no wards weed		- graze these annual areas only in times of high herbage growth	
East Paney	Paney Well	Eucarro	1830 poor	2.1	- Paney Well old water with history of heavy use, old homestead - severe scalding on flats to S of well - areas of annual cover only - S of paddock more stable; daisy bluebush and pearl bluebush with regeneration - replaced by bitter saltbush in some areas - S of paddock able to sustain grazing if water is supplied	- severe scalding S of Paney Well, N. half of paddock unstable and eroded	- N of paddock watering on Paney Well incapable of sustaining grazing - suggest piping water to centre of paddock for grazing use of southern sector	poor
Front Pennas	trough	Yarierberrie	1845 fair	1.5	- grazing has reduced density of scotia bush and stiff Westringia - corresponding increase in gallweed, spearfruit copperburr and tarbush - lower litter cover and increased bare areas - gallweed abundant around trough	- some (low) susceptibility to erosion with removal of shrubs and opening up cover - v. sandy soil - unpalatable shrubs may increase with heavy grazing use	none	fair

Paddock Assessment - Paney (Cont.)

Mattera	Mattera Well	Ebunbanie	1829 poor	1.5	<ul style="list-style-type: none"> - flats in N and along creek show severe scalds and soil loss - annual ground cover only - unstable seasonal cover - grazing concentrated along valley and flats along creek - mallees enhance soil stability - low plant vigour 	<ul style="list-style-type: none"> - soil susceptible to continued erosion with dry season grazing in E - annual plants of poor vigour indicating reduced site productivity in E 	<ul style="list-style-type: none"> - use these waters only for short periods when herbage growth is high; alternatively close to stock - recommend rabbit control near Mattera Well 	poor in E
	Coolgundibbie Tank	Ebunbanie	1828 poor	1.6	<ul style="list-style-type: none"> - high rabbit numbers near Mattera Well - creek flood out flat has pearl bluebush shrubland in S of paddock 			
Mt. Allalone	Cacuppa Well	Yarierberrie	1837 poor	1.8	<ul style="list-style-type: none"> - loss of bluebush for approximately 2km SE of Cacuppa Well - east of Cacuppa Well, annual cover only 	<ul style="list-style-type: none"> - risk continued scalding around Cacuppa Well may prevent re-establishment of bluebush 	<ul style="list-style-type: none"> - close Cacuppa Well to grazing use - retain trough in E as only watering point for small mob (200) 	poor in W good in E
	trough from house	Yarierberrie	1641 poor	1.4	<ul style="list-style-type: none"> - bluebush further E shows some areas with regeneration - mallee with bluebush daisy and other shrubs in S shows good stability 			
Mt. Double	trough	Ebunbanie	1843 good - fair	1.5	<ul style="list-style-type: none"> - good cover of bitter saltbush N of trough means favourable stability but low palatability - bladder saltbush probably dominant here in past 	<ul style="list-style-type: none"> - continued scalding along creek line in N of paddock 	<ul style="list-style-type: none"> - close Chillunie dam water in north of paddock - allow restabilizing of eroded and scalded creek flats 	fair
Nukey	Kolay Well	Ebunbanie	1841 poor	1.5	<ul style="list-style-type: none"> - annual cover only, unstable area 	<ul style="list-style-type: none"> - v. severe scalding for 1km around Nukey Dam 	<ul style="list-style-type: none"> - contact Department of Agriculture re revegetation of scalded creek line and dam 	poor
	Nukey Dam	Ebunbanie	1840 poor	1.2	<ul style="list-style-type: none"> - scalding evident across paddock, especially along drainage line with dam in E 	<ul style="list-style-type: none"> - high goat numbers in area at time of sampling 	<ul style="list-style-type: none"> - remove stock or fence off dam and pipe water north to graze with small numbers approximately 200) cease grazing use of east and central sectors of paddocks 	
Open Country	trough	Yarierberrie	1844 good	1.4	<ul style="list-style-type: none"> - mallee woodland shows favourable species diversity - no evidence of increase in unpalatable species - favourable density of shrub species and mallee box regeneration - good litter and cover - contributes to stability of site - large paddock with limited grazing use 	none	none	good
Pine Well	Pine Well Bore	Ebunbanie	1827 poor	1.5	<ul style="list-style-type: none"> - ground cover all annual; good vigour - some biennial speargrass 	<ul style="list-style-type: none"> - soil particularly susceptible to erosion with drying off of annual forbs and grasses 	<ul style="list-style-type: none"> - capable of sustaining grazing following good winter rain and high herbage growth only 	poor

Paddock Assessment - Paney (CONT'D)

Paddock	Water	Land System	P.P. AND CONDITION	Distance (KM)	Comments	Hazards	Recommendations	Paddock Condition Estimate
Standley Flat	pipeline trough and Woolshed Dam	Yarlerberrie	1846 fair	1.5	<ul style="list-style-type: none"> - spear grass grasslands on flats in S and W relatively stable due to biennial nature of grass present at sampling - scalding around Woolshed Dam - scattered rises probably once supported pearl bluebush historical records state this area was a chenopod shrubland in mid 1800's 	<ul style="list-style-type: none"> - continued gulying and cave ins E of Woolshed Dam - continued soil loss around dam 	<ul style="list-style-type: none"> - fence off Woolshed Dam cease grazing of this side of paddock - light grazing on rest of paddock - investigate potential for revegetation or stabilization of scalded flats 	fair
Waganny	Waganny Catch trough	Yarlerberrie	1835 very poor	1.6	<ul style="list-style-type: none"> - annual forbs main cover E of Waganny Catch - very poor stability - old drifts and scalding - continued instability, also salting 	<ul style="list-style-type: none"> - risk of continued soil loss around Waganny Catch 	<ul style="list-style-type: none"> - limited grazing only in seasons when herbage production is high 	poor
	Cacuppa Well	Yarlerberrie	1836 poor	1.7	<ul style="list-style-type: none"> - poor stability W of Cacuppa Well - moderate scalding and increase in gallweed 			
West Charba	Coolgundibbie Tank, trough	Ebunbanie	1825 poor	1.6	<ul style="list-style-type: none"> - flats to N of trough and old dam scalded with annuals only and isolated remaining perennial chenopod shrubs - unstable area, past heavy use, poor water placement in SW corner 	<ul style="list-style-type: none"> - scalding N of Coolgundibbie - continued erosion risk with dry season grazing - moderate water sheeting W of Charba Well 	<ul style="list-style-type: none"> - pipe water out from Tank to allow stabilization of SW corner and regeneration of shrubs - seasonal grazing in times of high herbage growth only; alternatively close to stock 	poor
	Charba Well	Ebunbanie	1826 poor	1.5	<ul style="list-style-type: none"> - annual cover of medic and wards weed - unstable area on Charba Well side of paddock 		<ul style="list-style-type: none"> - pipe water out from Charba Well to more stable site 	
West Paney	trough	Eucarro	1831 good	2.8	<ul style="list-style-type: none"> - aged bluebush stand in W of paddock some young bushes along track - good foliar cover at time of sampling - moderate erosion 	<ul style="list-style-type: none"> - annual flats in N and E poor stability - drifting sand flats near creek in middle of paddock - result of old erosion event 	<ul style="list-style-type: none"> - pipe water to west of paddock; discontinue use of eastern flats 	good in W poor in E
	trough	Eucarro	1832 poor	1.5	<ul style="list-style-type: none"> - perennial pearl bush grazed out in E of paddock, stumps remain - low ground cover, all annual, v. unstable in E 			
			739		<ul style="list-style-type: none"> - stable bluebush and daisy bluebush shrubland on S fence 			
Wooly	Chillunie Dam	Ebunbanie			<ul style="list-style-type: none"> - holding paddock - annual ground cover - lessee reports termite activity following storms; termites consume dry standing grass 	<ul style="list-style-type: none"> - small regular scalds on flats near dam may increase with dry time grazing 	<ul style="list-style-type: none"> - use as holding paddock only when necessary 	none

3. Land Management Issues

Much of Paney Lease is occupied by the Eucarro and Eburnabnie Land systems with annual and ephemeral dominated plains occurring between the mallee and porcupine grass hills. The third major land system is Yarlerberrie which is dominated by mallee woodland sand plains of relatively low grazing value. Additional minor areas of Corrobinnie, Peter Pan, Pinkawilline and Peterlumbo Land Systems occur in the southern position of the lease.

The Paney area was grazed as early as the 1880's and several old buildings remain including the Pondanna Farm and Old Paney Homestead. Pondanna was farmed for some years and today these flats carry dense production of grasses including the introduced wild oat grass following winter rains. In addition some areas which once had chenopod shrubland of pearl bluebush or more commonly, bladder saltbush, today have an annual grassland or forbland depending on the season and timing of rain. One such area is Standley Flat which at the time of sampling was dominated by a speargrass grassland.

The major issues relating to use of Paney are discussed below and recommendations stated where appropriate. These recommendations are also listed in the paddock assessment.

GENERAL

3.1 Concentration of sheep grazing

Large areas of the northern two thirds of Paney are particularly hilly. These areas receive minimal grazing use and as a result, the plains or flats which are predominantly annual grasslands, receive concentrated use. This compounds the problems associated with grazing the relatively unstable annual production areas.

SPECIFIC

3.2 Use of Annual and ephemeral flats

Many areas on Paney are considered to be in poor condition or of poor stability. These areas are dominated by short lived plants and are very productive following good rains for up to ten months. For this reason these areas are valued by the pastoralist. However without rain these flats or plains have only dry litter and are particularly susceptible to soil erosion with continued sheep grazing and traffic. Dry seasons are dominant in the long term and should be considered the norm rather than the exception.

Sheep can also graze the wards weed seed when no other feed exists, and the lessee has been taking advantage of this. Maintaining sheep on this seed store means increased risk of erosion since sheep continue to track over the bare ground and graze on the remaining litter which is vital to soil protection. For this reason grazing of these areas should be limited to periods when herbage is dense, not in dry season.

It is this instability in plant cover and soil protection which is of central concern in the long term maintenance of plant and soil resources on Paney. The

recommendations relating to grazing use, soil stabilization and water placements stem from this concern.

Recommendation

Grazing of the annual and ephemeral production areas should be limited to periods when herbage cover is sufficient to protect the soil. Grazing in dry seasons when only sparse plant litter remains present a hazard to soil stability, and is not acceptable.

3.3 Soil erosion

Soil loss is evident across several areas on the lease. The most extensive of these are listed below:

- . scalding and washing along the creeklines in Nukey Paddock, both at Nukey Dam and further west.
- . scalding and extensive soil loss around Chillunie Dam in both:
 - Woolly Paddock along the eastern fence
 - and - Mount Double in the north along the creek.
- . topsoil loss along the flats on the creek in Mattera Paddock between Coolgundibbie Tank and Mattera Well.
- . scalding and soil loss to the north of Coolgundibbie Tank in West Charba Paddock.
- . scalding around Woolly Dam in Standley Flat.
- . deep gulying and old areas of drift now partly stabilized, to the north west of Paney Well in West Paney. These areas remain relatively unstable.
- . scalding and some salting east from Waganny Dam.

These areas need to be stabilized. The following recommendations are made for immediate implementation. The Department of Agriculture will be consulted by the Range Assessment Unit for advice on revegetation or stabilization work to further alleviate the problems.

Recommendations

1. Destock Nukey Paddock and allowing accumulation of plant litter and relieving unstable and scalded areas from sheep use. Ponding may assist in the reclamation of these scalds - further advice will be given for this area.
2. Fence of Woolshed Dam to restrict grazing use of this area in Standley Flat.
3. Close Chillunie Dam water into Mount Double, and use Woolly as a holding paddock only when absolutely necessary. Reclamation in the north of Mount Double can be carried out in conjunction with that in Nukey.
4. Pipe outwater from Coolgundibbie Tank in West Charba to relieve use of this corner. Revegetation may stabilize this area.

5. Close the current water trough from Paney Well in West Paney. To continue grazing in this paddock, pipe water south into bluebush shrubland and stock lightly.

3.4 Poor placement of waters

Poor placement of waters results in further concentration of use in restricted areas. Placement of waters in paddock corners such as Coolgundibbie Tank in West Charba, Chillunie Dam in Mt. Double, and Charba Well in East Charba are example of this.

Recommendations

Pipe water out from Charba Well into East Charba to relieve this very old watering area. This may require negotiation with the Lessee of Yardea since Charba Well is on that lease. Recommendations for Chillunie Dam and Coolgundibbie Tank are discussed in Section ~~2.3.3~~.

3.5 Goats

Goats are a proclaimed animal under the Animal and Plant Control Act of 1986. Where goats are not domesticated adequate controls must be taken to control them. Shooting small mobs or trapping on waters following musters will help to eradicate smaller mobs and will control rather than simply reduce numbers.

Goats were present in quite high numbers in the hills on Paney at time of assessment and also frequent the flats.

Recommendation

Regular action must be taken to control goats through mustering and shooting or trapping. A regional approach will greatly benefit control due to the mobility of goats.

3.6 Rabbits

Rabbits are an ongoing problem in the region and can have a particularly damaging effect on woody plants and seedlings. They are a pest animal under the Animal and Plant Control Act and action must be taken to control them

At present rabbits are in moderately high numbers on Kolendo according to the lessee. Control is difficult due to the nature of the terrain and the area involved, however localized control is necessary.

Rabbits were observed to be at moderate to low densities at the time of assessment.

Recommendation

Rabbit control in localized areas should be carried out when rabbit numbers are low.

3.7 Recreational Use

Paney has many attributes making it attractive to recreational camping and picnicing. It is relatively close to the Eyre Highway and people come from the Eyre Peninsular, Port Lincoln and local towns such as Wudinna and Minnipa for camping. Most visitors come for a day or a weekend, others for 3 or 4 days.

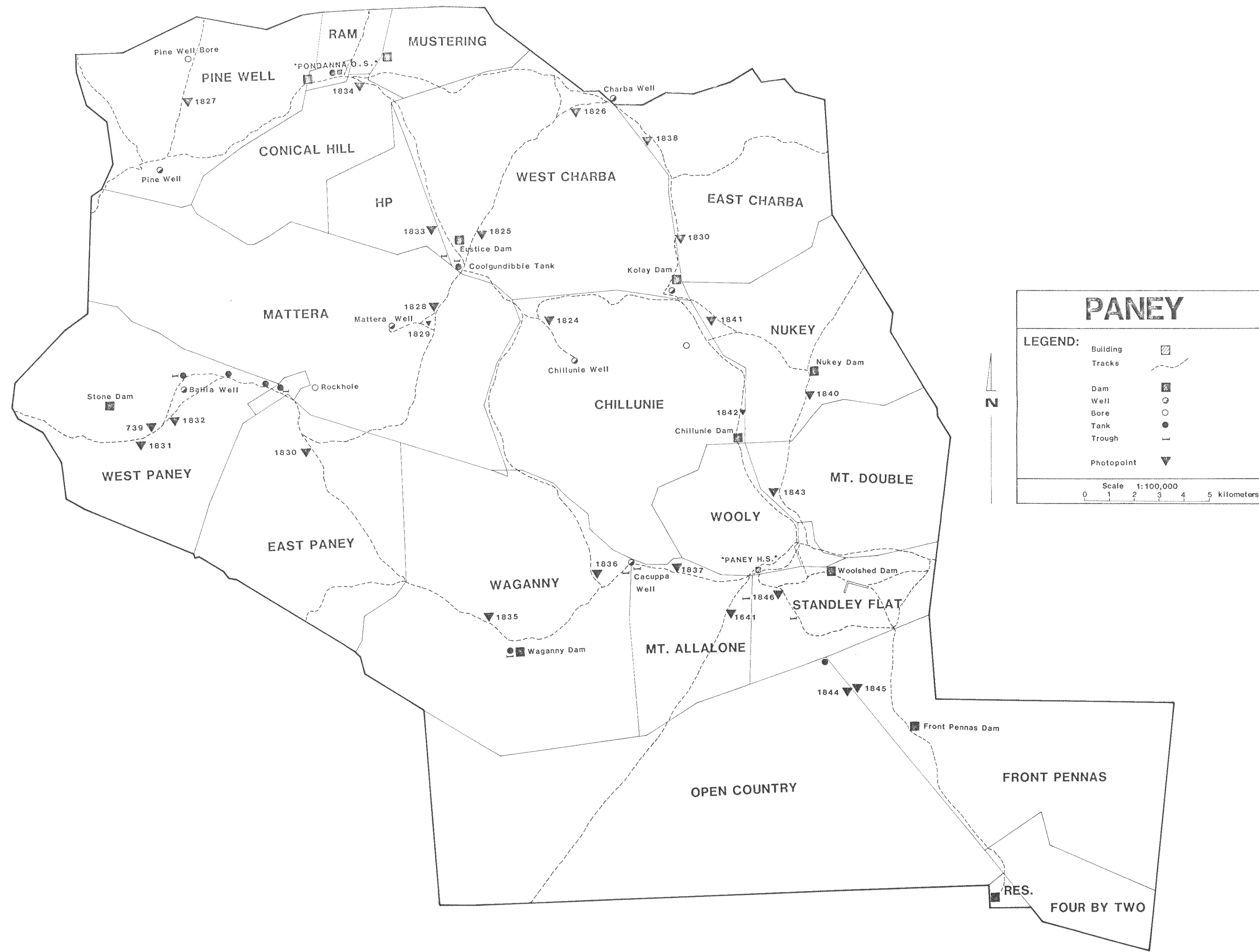
The Lessee reports that the major repercussions are wear and tear on gates and litter being left. Otherwise it does not pose a problem.

The Lessee also noted that the number of recreationalists has increased dramatically in the past ten years. Some of these call beforehand to ask permission of access others do not. Some groups make regular use of the shearers quarters for camps.

Some areas are particularly well used with tracks leading to popular camp sites and picnic spots, usually near hills. These areas have suffered little with some removal of wood and logs for firewood being the main impact.

Recommendation

The recreational use of this area may pose problems both for station management and to the physical environment. At present no action will be taken however this use of the area needs to be monitored.



PANNEY

LEGEND:

Building	□
Tracks	—
Dam	■
Well	○
Bore	●
Tank	●
Trough	—
Photopoint	▽

Scale 1:100,000
0 1 2 3 4 5 kilometers