RESEARCH TEAM

LANDS

MANAGEMENT OF THE MOUNT NEURUM ROSS SITE (ACCESS, USE, EXPANSION)

Author: David Marlow (Principal Research Adviser)

Date of Issue: 21 November 1995

Issue Number: 1.0

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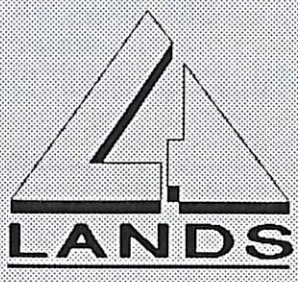

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DISCLAIMER

The views expressed in this report are solely those of the author. They are not necessarily the views of the Department of Lands, or those of the ROSS Committee.

EXECUTIVE SUMMARY

Purpose of the work

1. To examine the various road access options to the Mount Neurum ROSS site.

2. To examine various management options for the Mount Neurum ROSS site - the ROSS Committee has contracted the Caboolture Shire Council to create a more detailed management plan for Mount Neurum.

3. To investigate various options for expanding the Mount Neurum ROSS site, given the limited areas of the present ROSS blocks on Mount Neurum.

4. To examine the links (if any) between Mount Neurum and surrounding areas of regional significance - particularly Mount Mee State Forest and Mount Delaney.

Action requested of the DoL representative on the ROSS committee

Submit this report to the ROSS committee for its consideration.

Recommendations for immediate consideration by the ROSS committee

Expand the area of the ROSS site

6.1: Regarding Lot 440 on CG1537:
   a. Approve the Permit to Occupy for grazing;
   b. Incorporate this block formally into ROSS (the Permit To Occupy can be revoked WHEN the ROSS site is developed and IF cattle grazing is later determined to be incompatible with the ROSS values of Mount Neurum.

6.2: Acquire Lot 10 on RP48845 by voluntary purchase for inclusion in ROSS, if the purchase price does not exceed $200,000.

Road access to the plateau

2.3: Upgrade the old timber track from Fraser Road, if Lot 10 on RP48845 is first acquired under ROSS.

Wildlife corridors and voluntary Conservation Agreements

7.1: Use ROSS funding to fund voluntary Conservation Agreements to retain a wildlife corridor on private properties, linking Mount Neurum with Mount Delaney and Mount Mee State Forest.

7.2: Carefully plan how this wildlife corridor may be preserved to the mutual benefit of individual landholders and the general community, without generating a destructive "clear-it-all-now-before-the-Government-can-stop-us" response.

Other Recommendations

Road access to the plateau

2.1: Develop the Perkins Road from Stanton Road access to Mount Neurum, if Lot 524 on C311081 or Lot 558 on C311567 is acquired under ROSS.

2.2: Develop the Perkins Road from Fraser Road access to Mount Neurum, if neither Lot 524 on C311081 nor Lot 558 on C311567 nor Lot 10 on RP48845 is first acquired under ROSS.

Cadastral surveys

3.1: Conduct a line-of-sight survey of the boundaries of the Mount Neurum ROSS site, when the final extent of the site has been determined.

Fencing

3.2: Construct closed internal fences over some areas of the plateau to exclude cattle to monitor vegetation rehabilitation (If one aim is to discourage cattle grazing over the ROSS site, one exclusion area will be the dam).

Fire management

4.1: Close the ROSS site at times of high fire danger, by erecting relevant signs and closing and locking gates, until the fire threat had passed.

4.2: If fire management of the Mount Neurum ROSS site has to be conducted independently of fire management of surrounding properties, construct unobtrusive fire breaks and conduct prescribed burns on the plateau of Mount Neurum.

4.3: Pursue (with appropriate sensitivity) a co-operative integrated fire management regime with neighbouring landholders.

Uses and infrastructure

5.1: Seek (and seriously consider) the views of the local communities regarding the future use of Mount Neurum.

5.2: Retain cattle grazing at least until:
a. a sound fire management regime has been implemented;
b. sufficient knowledge has been gained of the effects of cattle grazing on Mount Neurum.

5.3: Allow horse riding as a recreational activity on Mount Neurum.

5.4: Ban active or noisy pursuits (such as trail bike riding).

5.5: Allow sight-seeing and hiking as a recreational activity on Mount Neurum.

5.6: Do not construct walking trails while the vegetation is open and the numbers of visitors remains small - the cattle would do more damage than the people.

5.7: Do not clear viewing areas (they would diminish the values of the major ROSS selection criteria for the site).

5.8: If funding permits, construct a single observation tower could be built say 10 metres above the tree canopy. The most likely location is the summit of Neurum Mountain at the southern end of the site.

5.9: Do not construct toilet and barbeques facilities, or provide garbage removal services while the numbers of visitors remains small - provide such facilities when increasing visitor numbers herald future health and litter problems.

5.10: a. Create a 4WD track to the top of the plateau;
b. Create a parking area, log barrier and locked gate at the end of this 4WD track;
c. Continue this 4WD track beyond the gate along the plateau.

Expand the area of the ROSS site

6.3: Acquire Lot 524 on C311081 by voluntary purchase for inclusion in ROSS, if:
- a. a detailed site inspection does not uncover problems (such as extensive recent clearing);
- b. a purchase price acceptable to both parties can be agreed upon;
- c. Lot 10 on RP48845 cannot be acquired, or if the ROSS committee decides to make major expansions to the Mount Neurum ROSS site.

6.4: Acquire Lot 557 on CG3873, Lot 281 on CG295, Lot 350 on CG536 (and possibly Lot 101 on CG3873) by voluntary purchase for inclusion in ROSS, if:
- a. a detailed site inspection does not uncover problems (such as extensive recent clearing);
- b. a purchase price acceptable to both parties can be agreed upon;
- c. Lot 10 on RP48845 and Lot 524 on C311081 cannot be acquired, or if the ROSS committee decides to make major expansions to the Mount Neurum ROSS site.

6.5: Acquire Lot 3 on RP46404 and Lot 2 on RP18210 by voluntary purchase for inclusion in ROSS, if:
- a. a detailed site inspection does not uncover problems (such as extensive recent clearing);
- b. a purchase price acceptable to both parties can be agreed upon;
- c. Lot 10 on RP48845, Lot 524 on C311081, Lot 557 on CG3873, Lot 281 on CG295 and Lot 350 on CG536 cannot be acquired, or if the ROSS committee decides to make major expansions to the Mount Neurum ROSS site.

6.6: Acquire Lot 349 on CG536 by voluntary purchase for inclusion in ROSS, if:
- a. a detailed site inspection does not uncover problems (such as extensive recent clearing);
- b. a purchase price acceptable to both parties can be agreed upon;
- c. Lot 557 on CG3873, Lot 281 on CG295 and Lot 350 on CG536 are also purchased.

6.7: Acquire Lot 558 on C311567 by voluntary purchase for inclusion in ROSS, if:
- a. a detailed site inspection does not uncover problems (such as extensive recent clearing);
- b. a purchase price acceptable to both parties can be agreed upon;
- c. the blocks previously recommended cannot be acquired.

1.0 ROSS AND MOUNT NEURUM

1.1 Definitions

Open space is land and/or water that has its surface area open to the sky and is totally or predominantly undeveloped.

ROSS (Regional Open Space System) is a spatial network of open space having regional significance, in both public and private ownership, protected by a range of proprietorial or regulatory mechanisms.

1.2 Site definition

Mount Neurum is a massif, located 5 km south-west of Woodford and 39 km west of Caboolture (Map 1).

The Mount Neurum ROSS blocks are:
a. Lot 327 on CG1552 (177.227 ha); and
b. Lot 328 on CG1537 (171.865 ha),
Parish of Durundur, County of Stanley (Map 2).

These properties total 349.092 ha (860 acres), with a common external perimeter of approximately 10.4 km.

1.3 Topography

The topography of the Mount Neurum ROSS blocks can be summarised as follows:
a. The highest point is Neurum Mountain at 507 metres, on Lot 328 of CG1537.
b. Subsidiary peaks lie on a ridge to the north, with heights of 382, 376, 357, 346 and 302 metres, on Lot 327 of CG1552.
c. Neurum Mountain and the ridge are separated by a saddle with a height of 250 to 275 metres.
d. The two lots contain much (but by no means all) of the highest land on the feature, known as Mount Neurum.
e. Most of the timbered slopes of Mount Neurum are not included in the two lots (Map 3).

1.4 Vegetation

The vegetation cover of Mount Neurum and its surrounds can be seen in the 1991 Nambour aerial photography:

a.	northern end	- run 13, number 53 (Photograph 1); and
b.	central and southern end	- run 14, number 79 (Photograph 2);
c.	south-west wildlife corridor	- run 14, number 77 (Photograph 28).

The area is presently heavily timbered, but with very little understorey. This would be due to the cattle grazing and to the high-intensity wildfire that swept through the area in 1994. Tree types found commonly on the site include tallow-wood, ironbark, gum, box and messmate. Microflora include mosses and lichens.

1.5 Purchase history

The two blocks were purchased by the State from Frieda Muller in March 1995 for inclusion in the ROSS estate. The purchase cost to the State was $275,000.

1.6 The types of ROSS land

THE TYPES OF ROSS LAND	APPLICABILITY TO MOUNT NEURUM
1. Existing public land of regional scale and quality (designated as national or environmental park, marine park, public park, reserve, State forest, esplanade, or unallocated State land).	One boundary of Mount Mee State Forest lies only 4 km to the south-west of Mount Neurum.
2. Private land purchased to augment the ROSS (where the retention of a property's open space character cannot be guaranteed by planning or other non-purchase instruments).	Mount Neurum is zoned rural, where 18 ha lots are allowed. Subdivision approval would almost certainly be granted, if suitable access were provided. This would result in a patchwork quilt of clearing, similar to that now disfiguring Mount Mee.
3. Private properties (included by agreement with the landholders but remaining privately owned).	This is the only practical means of preserving the wildlife corridor to Mount Delaney and Mount Mee.

1.7 ROSS selection criteria

ROSS SELECTION CRITERIA	APPLICABILITY TO MOUNT NEURUM
1a. The land is special, for a regional framework (defining the limits and shape of urban areas).	A major acquisition criterion. Immediately to the south lies Mount Delaney and state forest. However, Mount Neurum dominates the landscape to the west, north and east: * north-east to Woodford (Photograph 3); * east to D'Aguilar (Photograph 4); * south-east to Mt Mee (Photograph 5); * west to Neurum (Photograph 6); * west to Villeneuve (Photograph 7); * north to Neurum Road (Photograph 8).
1b. The land is special, for recreation (passive or active).	A minor acquisition criterion. No active recreation use is likely. The most likely passive recreation uses are bushwalking and picnicking. Its location in a region of rapidly expanding population will increase its recreational value in the future.
1c. The land is special, for conservation (protecting the environment, culture, heritage, or habitat-linking corridors).	A moderate acquisition criterion. The biodiversity is currently restricted by cattle grazing. The dominant species are well represented in the Mount Mee State Forest Park, immediately to the south. Mount Neurum can be seen as the northern-most extension of the Mount Mee Park and is presently linked to the Mount Mee Park by a narrow wildlife corridor across private land.
1d. The land is special, for landscape protection (contributing to scenic quality, environmental amenity, or cultural enhancement).	A major acquisition criterion. The upper reaches of Mount Neurum are heavily timbered, with no observable man-made impacts - no clearing, no structures, no fencelines.
1e. The land is special, for its economic potential (facilitating sustainable economic activity by using natural or cultural resources without destroying their value).	Not applicable. Mount Neurum is used only for low-density cattle grazing. There is an indirect benefit by removing the need for the expensive infrastructure required to access and service subdivisional development of this isolated and rugged site. At present, there is no infrastructure - no formed roads, no water mains, no electricity supply.

ROSS SELECTION CRITERIA	APPLICABILITY TO MOUNT NEURUM
2. The land is of regional importance (separately or collectively).	A minor acquisition criterion. If a wildlife corridor can be maintained south to Mount Delaney with the co-operation of the intervening private landholders, Mount Neurum will remain part of a greater regional framework and not degenerate to an isolated feature.
3. The land forms part of a system of non-urban land which is subjected to a co-operative form of planning, development and management.	Not applicable at this time.

2.0 ROAD ACCESS TO THE PLATEAU

2.1 General

There is no formed road to the site.

The only present road access is via a 4WD track on private property (Lot 564 of C311015) from Delaney Creek Road. This property is not presently for sale. It has also been extensively cleared and is not suitable as a ROSS block, except conceivably as a future revegetated wildlife corridor block to Mount Delaney. Another access route must therefore be found.

The only viable options are along the existing unformed road reserves (Map 2). None of these road reserves offer so much as a 4WD track.

2.2 Batchelor (Batchell) Road

2.2.1 Location

Lot 327 on CG1552 is theoretically accessed via Batchelor Road from Kropp Road, on the eastern side. *This route was the preferred option in the developer's plans for Mount Neurum*. This route was referred to by the developer as Batchell Road (Maps 4, 5 and 6 - Maps 3, 4 and 5 in the developer's plans). Possible approximate locations are displayed in Photographs 9 and 10.

2.2.2 Advantages

1. It is the closest to Woodford and the D'Aguilar highway.

2. Much of Kropp Road is presently being upgraded.

2.2.3 Disadvantages

1. It would require approximately 2 km of road construction.

2. The steep slope (with an average grade of about 1 in 5) makes the formation of a road on this alignment a very expensive operation (The developer reputedly estimated road costs of about M$1.2, most of which would have been expended on the Batchelor Road access. Maps 4 and 6 indicate the difficulty of road construction).

3. Batchelor Road would need to be resurveyed to determine the location of the road reserve. Any road survey will require 4 km of line-of-sight pegs (both sides of the road) in rugged, densely vegetated terrain. This work has been estimated to take about 15 days of on-site work at $1,300 per day. With preliminary work and plan drawing, the total cost is estimated at $25,000, with a minimum cost of $20,000.

2.2.4 Conclusion

The cost is prohibitive for any low-profile, low-impact development of a ROSS site, where there is no economic return to justify the additional cost of the shorter access from the highway.

Do not develop this access route.

2.3 Webb Road

2.3.1 Location

Lot 328 on CG1537 is theoretically accessed via Webb Road from Kropp Road, on the south-east side. Webb Road accesses the eastern boundary of this lot, at the bottom of Mount Neurum. Webb Road lies along a creek gully at the foot of Mount Neurum (Photograph 11).

2.3.2 Advantages

1. Although longer than the Batchelor Road access route, it is still close to Woodford and the D'Aguilar highway.

2. Much of Kropp Road is presently being upgraded.

3. The road construction is relatively simple, if no internal road to the plateau is required. Any internal road can be a simple 4WD track anywhere on Lot 328.

4. The survey cost will be much less than that for the Batchelor Road route, because the slope is gentle and the ground only lightly vegetated.

2.3.3 Disadvantages

1. It would require about 2.5 km of road construction to the foot of Mount Neurum, plus another 1 km of internal track.

2. The access is along a creek gully, which will often flood in wet weather and thus threaten to trap visitors to the site. The continual flooding will damage the road surface and thus significantly increase maintenance costs.

2.3.4 Conclusion

Continual flooding of the road introduces safety concerns and significant maintenance costs.

Do not develop this access route.

2.4 Perkins Road from Stanton Road

2.4.1 Location

Lot 328 on CG1537 is theoretically accessed via Perkins Road from Stanton Road, on the west side.

This is also the theoretical access to Lot 524 on C311081 and Lot 558 on C311567, which border the northern ROSS block (Lot 327 on CG1552). See Photograph 12.

2.4.2 Advantages

These following advantages apply if either Lot 524 on C311081 or Lot 558 on C311567 is first acquired under ROSS.

1. It is 3.5 km closer to Woodford and the highway than the Fraser Road option.
2. It requires only 1 km of road construction to access the ROSS site.
3. Road construction is simple, because:
   a. the slope is gentle;
   b. the vegetation is light;
   c. the route is flood-free.

2.4.3 Disadvantages

The following disadvantage applies if neither Lot 524 on C311081 nor Lot 558 on C311567 is first acquired under ROSS.

1. It would require 4 km of road formation to access the southern ROSS block (Lot 328 on CG1537), when the same end point can be reached by formed road from the nearby bitumened Vidoni Road (See Section 2.5).

2.4.4 Conclusion

If Lot 524 on C311081 or Lot 558 on C311567 is first acquired under ROSS, this would be the logical access to Mount Neurum. In this situation, develop this access route.

If neither Lot 524 on C311081 nor Lot 558 on C311567 is first acquired under ROSS, this would not be a logical access to Mount Neurum. In this situation, do not develop this access route.

Recommendation 2.1: *Develop the Perkins Road from Stanton Road access to Mount Neurum, if Lot 524 on C311081 or Lot 558 on C311567 is acquired under ROSS.*

2.5 Perkins Road from Fraser Road

2.5.1 Location

Lot 328 on CG1537 is theoretically accessed via Perkins Road and Fraser Road from Vidoni Road and Stanton Road, on the south-south-west side (Photographs 13 and 14).

2.5.2 Advantages

1. It requires only 1 km of road construction to access the ROSS site and the vegetation cover is not dense (Photograph 15).

2. This access is easily accessible from D'Aguilar and Mount Mee, via Delaney Creek Road.

3. If Lot 10 on RP48845 were acquired under ROSS, road construction would be much simpler, because the former timber track on Lot 10 could be used as a basis for the track (Photograph 16).

4. The timber track links up with the present 4WD access track over Mount Neurum (Photographs 17 and 18).

2.5.3 Disadvantages

1. This access point is the longest distance (14 km) from the highway - 4 km further on from the Perkins-Road-from-Stanton-Road access point.

2. Road access limited to the road reserve will be difficult in the hilly rocky terrain (Photograph 19).

2.5.4 Conclusion

If neither Lot 524 on C311081 nor Lot 558 on C311567 is first acquired under ROSS, this is the logical access to Mount Neurum.

If Lot 10 on RP48845 is first acquired under ROSS, the old timber track which sometimes crosses into the road reserve from Lot 10 is the easiest access to Mount Neurum.

Recommendation 2.2: *Develop the Perkins Road from Fraser Road access to Mount Neurum, if neither Lot 524 on C311081 nor Lot 558 on C311567 nor Lot 10 on RP48845 is first acquired under ROSS.*

Recommendation 2.3: *Upgrade the old timber track from Fraser Road, if Lot 10 on RP48845 is first acquired under ROSS.*

3.0 PRELIMINARY WORK

3.1 Boundary surveys

Barry Andrews of J.F. Murray and Company estimated that:

a. a survey to locate the boundary points of the ROSS blocks will cost $10,000.
b. a survey giving line-of-sight boundary markers will cost $30,000 (this more-detailed survey will be required, for the proper management of the ROSS site).

Recommendation 3.1: *Conduct a line-of-sight survey of the boundaries of the Mount Neurum ROSS site, when the final extent of the site has been determined.*

3.2 Biological survey

A biological survey of the ROSS site is required prior to determining a detailed management plan.

The NatureSearch 2000 data for Mount Neurum is available and Caboolture Shire Council has requested a more detailed survey of the area by NatureSearch 2000.

3.3 Weed control

A cursory examination of the present ROSS blocks indicates that weed infestation is presently light. An early eradication program should thus not be expensive, while lengthy delays will allow minor infestations to become major infestations and dramatically increase the cost of eradication.

3.4 Fence construction

3.4.1 Boundary fences

It is desirable to exclude cattle, to re-invigorate the biodiversity of the ROSS site. However, other native fauna might also be disadvantaged by this restriction on movement.

The more-expensive, thicker-gauge barbed wire is needed to fence this bushland site - the cheaper high-tension wire snaps in bushfires. The rugged terrain and often shallow soils will also increase costs, as it will not be possible to access the entire boundary with fencing machinery.

A cost of $8/metre for fencing is reasonable. At this cost, it would thus cost $83,200 to fence the entire perimeter of the two ROSS blocks. This cost would be reduced significantly, by widespread use of existing trees as fence posts.

There would also be an ongoing monitoring and maintenance cost on the fence. Falling trees will cause breaks in the fence. However, most damage will be caused by cattle forcing their way through or over the fence - particularly in times of drought when feed is scarce outside the fence.

On the whole, perimeter fencing is desirable, but probably cost-prohibitive.

3.4.2 Internal fences

Internal fences that enclose various areas of the ROSS site would allow researchers to determine the regeneration potential and rate of fuel load accumulation, when cattle are totally excluded.

Because fixed boundary lines do not have to be closely followed, existing trees (rather than fence posts) can be used to run the wire. Consequently, the cost of creating and maintaining such experimental plots will be affordable.

Grazing by cattle over the ROSS site can be substantially reduced (though not prevented) by fencing off the one dam on the site. Other water supplies are minor and seasonal.

Photograph 20 shows:
a. the one dam;
b. the relatively gentle ground on the plateau of the massif;
c. the lack of undergrowth, caused by grazing and the 1994 fire.

Recommendation 3.2: *Construct closed internal fences over some areas of the plateau to exclude cattle to monitor vegetation rehabilitation (If one aim is to discourage cattle grazing over the ROSS site, one exclusion area will be the dam).*

4.0 FIRE MANAGEMENT

4.1 The need

Fires moving up the steep slopes from surrounding privately-held properties (particularly those with a westerly or north-westerly aspect) will be of very high intensity. Such fires are very damaging to the flora and very dangerous to any hikers or picnickers on the mountain.

If fuel loads grow to dangerous levels and a fire starts within the ROSS site, the fire intensity will be much reduced because the fire will have to move down steep slopes. However, neighbouring landholders will feel justified in blaming the State for land acquisition without management - even if the land had not been fire-managed when under previous private control.

4.2 Site closure

Mount Neurum is relatively isolated from ranger control, either DEH or DPI. This relatively small ROSS site also does not warrant its own ranger. If fuel loads accumulate to greater than 8 to 10 tonnes per hectare, a fire (particularly one sweeping up the western escarpment) will present grave dangers to anyone in its path on the mountain.

Recommendation 4.1: *Close the ROSS site at times of high fire danger, by erecting relevant signs and closing and locking gates, until the fire threat had passed.*

4.3 The boundary fire breaks option

The steep slopes require wide fire breaks.

The combination of steep slopes and rough terrain makes construction very difficult and consequently very expensive. Even if boundary fire breaks could be created, maintenance by slashing would be out of the question. However, without properly-maintained boundary fire breaks, it would be very difficult to quarantine perimeter prescribed burns inside the ROSS boundaries.

4.4 The plateau fire breaks option

Fire breaks and prescribed burning on relatively level areas of the plateau are possible, if a 4WD track is constructed to the plateau.

Major healthy native trees would be maintained on the fire breaks - only the understorey would be slashed. This will prevent unsightly fire break lines being visible from surrounding areas.

The perimeter fire break would be 15 metres wide and the internal fire breaks would be 10 metres wide. Prescribed burning would take place in different vegetation blocks in different years, with an individual block being burnt every 5 to 7 years.

This is an achievable compromise between no fire management and recommended fire management practice. However, the slopes will be unmanaged.

Recommendation 4.2: *If fire management of the Mount Neurum ROSS site has to be conducted independently of fire management of surrounding properties, construct unobtrusive fire breaks and conduct prescribed burns on the plateau of Mount Neurum.*

4.5 The expanded boundaries option

Optimal fire management is impossible on the present boundaries.

Fire management would be made easier by judicious increases in contiguous ROSS blocks to:

a. simplify the boundaries (reducing the number of edges);
b. take in more of the timbered foothills.

See Section 6 for details of potential sites for voluntary purchase.

4.6 The integrated fire management option

Optimal fire management can be achieved only by treating the plateau and the timbered slopes as a whole. This requires a management plan to be agreed upon by both the State and the affected private landholders.

The perimeter fire breaks would thus be on the forest/grassland interface on the gentler lower slopes. Fire breaks separating blocks on the slopes could be constructed where construction and maintenance is easiest.

Most - probably all - of the cost of such fire management should be borne by the State.

Recommendation 4.3: *Pursue (with appropriate sensitivity) a co-operative integrated fire management regime with neighbouring landholders.*

4.7 Implementation timetable

The high-intensity fires of 1994 removed the understorey. A high fuel load is not expected to accumulate until 1999 to 2001. There is thus no need for a rushed solution to the problems of fire management on Mount Neurum.

5.0 USES AND INFRASTRUCTURE

5.1 Community views

The surrounding communities will be the major users and beneficiaries of the ROSS site on Mount Neurum. It is right and sensible to seek their views, but a phoney consultation process will serve only to alienate the local communities.

Recommendation 5.1: *Seek (and seriously consider) the views of the local communities regarding the future use of Mount Neurum.*

5.2 Cattle grazing

Beef cattle from neighbouring properties currently graze free-of-charge on Mount Neurum and this grazing is facilitated by the presence of a dam. There are probably fewer than 50 cattle on Mount Neurum at any one time. This limited grazing:

a. reduces the undergrowth and thus the fuel load (and thus is beneficial as a hazard reduction tool);
b. reduces the biodiversity and compacts the soil (and thus creates ecological damage).

Recommendation 5.2: *Retain cattle grazing at least until:*

a. a sound fire management regime has been implemented;
b. sufficient knowledge has been gained of the effects of cattle grazing on Mount Neurum.

5.3 Horse riding

Horse riding on public lands in the area is presently limited to road reserves and an area of Mount Mee State Forest. The Mount Mee riding area requires a permit and access times are restricted to avoid clashes with trail bike riders.

If unofficial cattle grazing of Mount Neurum is to continue, it would be inconsistent to ban horse riding. The horse riding benefits the general community, while the cattle grazing benefits only one or two neighbouring properties.

Recommendation 5.3: *Allow horse riding as a recreational activity on Mount Neurum.*

5.4 Active or noisy pursuits

Noise on Mount Neurum will be easily heard on the surrounding lower land. ROSS has become an unnecessarily unpopular concept with landholders - further alienation of the local communities must be avoided.

Recommendation 5.4: *Ban active or noisy pursuits (such as trail bike riding).*

5.5 Sight-seeing and hiking

The area has been logged in the past and the relatively thin soils do not promote rapid regrowth. The forest type is dry sclerophyll rather than the more spectacular wet sclerophyll of some of the Mount Mee State Forest. However, the relatively open and undisturbed appearance of the plateau has its attractions and there are many areas of scenic interest (Photograph 21).

Recommendation 5.5: *Allow sight-seeing and hiking as a recreational activity on Mount Neurum.*

Recommendation 5.6: *Do not construct walking trails while the vegetation is open and the numbers of visitors remains small - the cattle would do more damage than the people.*

Views over the surrounding landscape are not dramatic, because most country to the east, north and north has been cleared for grazing (Photographs 22 and 23). The timber cover restricts the number and width of viewing sites.

Recommendation 5.7: *Do not clear viewing areas (they would diminish the values of the major ROSS selection criteria [1a, 1d] for the site).*

Recommendation 5.8: *If funding permits, construct a single observation tower could be built say 10 metres above the tree canopy. The most likely location is the summit of Neurum Mountain at the southern end of the site.*

5.6 Infrastructure

A relatively simple toilet system would cost about $50,000. The provision of barbeque pits would not be expensive, but would encourage litter. Any garbage removal vehicle would require a 4WD capability.

Recommendation 5.9: *Do not construct toilet and barbeques facilities, or provide garbage removal services while the numbers of visitors remains small - provide such facilities when increasing visitor numbers herald future health and litter problems.*

5.7 Access over Mount Neurum

As the principal user purpose is passive recreation and relaxation, 4WD access along the plateau should be restricted to official vehicles - ambulances, fire fighting vehicles, litter removal vehicles, etc.

Recommendation 5.10:

a. *Create a 4WD track to the top of the plateau;*
b. *Create a parking area, log barrier and locked gate at the end of this 4WD track;*
c. *Continue this 4WD track beyond the gate along the plateau.*

6.0 POTENTIAL EXPANSION OF THE ROSS SITE

6.1 A general case for expansion

1. The present ROSS blocks cover much of the plateau and some of the upper slopes. Mount Neurum as an entity has not been "saved" under ROSS. Most of the slopes of Mount Neurum could still be cleared for horticultural purposes and thereby significantly detract from the values of the criteria under which the two ROSS blocks were acquired.

2. The present boundaries do not lend themselves to easy management - there are too many edges on too many steep slopes. In particular, fire management would be made easier by judicious increases in contiguous ROSS blocks to simplify the boundaries and take in more of the timbered foothills.

6.2 Immediately neighbouring properties

PROPERTY	AREA (HA)	OWNER	SITE	VEG'N COVER	ROAD ACCESS	COMMENT
Lot 558 on C311567	64.34	Hill & Walton	west	fully covered	Perkins	suitable
Lot 10 on RP48845	49.85	Byrne	south west	fully covered	Perkins	suitable
Lot 6 on RP45397	18.24	Jamieson	south	mostly covered	Stanton	too small
Lot 564 on C311015	64.75	Matulock	south	partly covered	Fraser	too cleared
Lot 511 on CG606	27.251	Roberts	south	fully covered	Talci	too small
Lot 440 on CG1537	21.55	Roberts (special lease 39527)	east	mostly covered	Webb	suitable (permit-to-occupy from 15.12.95)
Lot 3 on RP46404	47.988	Roberts	east	mostly covered	Webb	suitable
Lot 281 on CG295	20.523	Trim	north east	fully covered	Batchelor	too small
Lot 557 on CG3873	62.726	Trim	north	mostly covered	-	suitable
Lot 524 on C311081	64.75	Trim	north west	mostly covered	Perkins	suitable

6.3 Other Mount Neurum properties

PROPERTY	AREA (HA)	OWNER	SITE	VEG'N COVER	ROAD ACCESS	COMMENT
Lot 5 on CG3873	82.79	Trim	north	mostly covered	Neurum	suitable
Lot 3 on CG3873	27.77	Trim	north west	mostly cleared	Neurum	too cleared
Lot 101 on CG3873	32.375	Trim	west	mostly covered	-	suitable
Lot 3 on RP50344	3.207	Kregs & Wirth	west	partly covered	Perkins	too small
Lot 11 on RP48845	3.207	Jamieson	south west	partly covered	Fraser	too small
Lot 2 on RP18210	64.588	Roberts	east	mostly covered	Webb	suitable, with Lot 3 on RP46404
Lot 349 on CG536	79.513	Lindsay & McKay	east	mostly covered	Batchelor	suitable
Lot 350 on CG536	58.366	Trim	north east	mostly covered	Batchelor	suitable
Lot 569 on CP880836	21.71	Bleakley (special lease 32275)	north east	cleared	Neurum	too cleared (20 year gravel lease renewed 01.04.89)

Ron Trim and Gavin Roberts are the major landholders on Mount Neurum. If the ROSS Committee wishes to make major additions to the ROSS site on Mount Neurum, these two are the men to see. Ron Trim will be the landholder more likely to sell blocks on Mount Neurum.

6.4 Acquisition of Lot 440 on CG1537

6.4.1 Location and status

Special Lease 39527 is currently held by Mr. G W Roberts over Lot 440 on CG1537 on the eastern side of Mount Neurum. The 20-year lease will expire on 14 December 1995. The Department's latest advice to Mr Roberts is to offer a Permit to Occupy, rather than freeholding or a lease renewal, because of the potential inclusion of this block in ROSS.

Lot 440 on CG1537 is contiguous with one of the two Mount Neurum ROSS blocks - Lot 328 on CG1537 (Map 2).

6.4.2 Reasons for acquisition

1. The survey boundaries of the ROSS site would be simplified and the boundary surveying costs reduced, by reducing the number of edges and "squaring" the ROSS blocks.

2. The ROSS frontage to the more-cleared lowlands would be increased (thereby slightly reducing the management problems).

3. No ROSS purchase funds would be expended on its acquisition.

6.4.3 Rationale for the recommended approach

1. There is no pressure to develop the ROSS site (the Caboolture Shire Council will be trustee of the site and Council staff have expressed an intention to retain the site in its present undeveloped state, indefinitely).

2. Cattle are already illegally grazing the ROSS sites.

3. Grazing will reduce the fuel load and so reduce management costs (even though it will reduce biodiversity).

4. The Permit to Occupy can be withdrawn and the land formally included in ROSS, when the site is developed.

5. IF cattle grazing is later regarded as compatible with the ROSS values of the Mount Neurum site, the Permit to Occupy need not even be withdrawn.

Recommendation 6.1: *Regarding Lot 440 on CG1537:*

a. Approve the Permit to Occupy for grazing;

b. Incorporate this block formally into ROSS (the Permit To Occupy can be revoked WHEN the ROSS site is developed and IF cattle grazing is later determined to be incompatible with the ROSS values of Mount Neurum.

6.5 Acquisition of Lot 10 on RP48845

6.5.1 Location and status

Lot 10 on RP48845 on the south-western side of Mount Neurum is currently owned by Valmae and Colin Byrne. The property was on the market until recently, at an ambit price of $220,000, but the property could probably be acquired for $180,000 to $200,000. The senior valuer values the property at $180,000 to $190,000, because of its relative isolation, lack of power and limited easily-useable land. Some of the site is degraded vine scrub, with some infestations of lantana and groundsel.

Lot 10 on RP48845 is contiguous with both Mount Neurum ROSS blocks (Map 2).

6.5.2 Reasons for acquisition

1. This block would expand the ROSS site to include much of the well-timbered south-western slopes of Mount Neurum.

2. The ROSS frontage to the more-cleared lowlands would be increased.

3. The property has frontage to the formed section of Perkins Road and borders the recommended access route to Mount Neurum.

4. The survey boundaries of the ROSS site would be simplified, by "squaring" the ROSS blocks.

5. The site contains rock gullies reaching down the slopes (Photograph 24).

6. The site contains flowering trees (such as silky oaks and jacarandas) on a pasture next to the road. This area is well-suited to development as a picnic and camping site and a picturesque waterhole could easily be constructed to catch runoff from one of the rock gullies (Photograph 25).

7. Road access construction costs would be significantly reduced, because:
   a. the existing timber logging track on this block and the road reserve could be upgraded at low cost - with gentler grades than would be possible with the existing road reserve;
   b. road survey costs would be minimal, because a full survey of the road reserve would not be necessary.

8. The purchase would include the house on the block. This house is modest but fairly modern and could be rented out in the short-to-medium term and later used as a caretaker's house, if the ROSS site were extensively developed.

Recommendation 6.2: *Acquire Lot 10 on RP48845 by voluntary purchase for inclusion in ROSS, if the purchase price does not exceed $200,000.*

6.6 Acquisition of Lot 524 on C311081

6.6.1 Location and status

Lot 524 on C311081 on the western side of Mount Neurum is currently owned by Ron Trim. Ron Trim is reputed to be willing to sell the block for inclusion into ROSS. However, no approach has been made to him and the block has not been recently inspected by Department of Lands officers. Consequently, a mutually reasonable acquisition price cannot be quoted for this report.

Lot 524 on C311081 is contiguous with the northern Mount Neurum ROSS block - Lot 327 on CG1552 (Map 2).

6.6.2 Reasons for acquisition

1. This block would expand the ROSS site to include much of the well-timbered north-western slopes of Mount Neurum.

2. The block is mostly timbered, with one area of pasture suitable for camping, picnicking and vehicle parking.

3. The western boundary borders cleared lowland.

4. It is 3.5 km closer to Woodford and the highway than the Fraser Road access option.

5. It requires only 1 km of road construction to access the block.

6. Road construction to the block is simple, because the slope is gentle, the vegetation is light and the route is flood-free.

Recommendation 6.3: *Acquire Lot 524 on C311081 by voluntary purchase for inclusion in ROSS, if:*

a. a detailed site inspection does not uncover problems (such as extensive recent clearing);

b. a purchase price acceptable to both parties can be agreed upon;

c. Lot 10 on RP48845 cannot be acquired, or if the ROSS committee decides to make major expansions to the Mount Neurum ROSS site.

6.7 Acquisition of Lot 557 on CG3873, Lot 281 on CG295, Lot 350 on CG536 and possibly Lot 101 on CG3873

6.7.1 Location and status

The total area of Lots 557, 281 and 350 is 141.614 ha. If Lot 101 on CG3873 is also included, the total area increases to 169.386 ha. All four blocks are owned by Ron Trim. No approach has been made to him and the blocks have not been recently inspected by Department of Lands officers. Consequently, a mutually reasonable acquisition price cannot be quoted for this report.

These blocks border the northern Mount Neurum ROSS block - Lot 327 on CG1552 (Map 2).

6.7.2 Reasons for acquisition

1. The four blocks are contiguous.

2. Lots 557, 281 and 350 would expand the ROSS site to include the well-timbered northern end of the plateau of Mount Neurum and most of the north-west slopes (and Lot 101 would include more of the north-west slopes).

3. All these vacant blocks are owned by the one man, which would simplify purchase, if the ROSS site is to be expanded to include all of the Mount Neurum plateau.

4. Road construction to the blocks is simple, because the slope is gentle, the vegetation is light and the route is flood-free.

NOTE: Lot 101 on CG3873 is less important than the other three blocks, because it includes some cleared lowland. However, it is contiguous with the other blocks and with the previously recommended Lot 524 on C311081 and all five blocks are owned by Ron Trim.

Recommendation 6.4: *Acquire Lot 557 on CG3873, Lot 281 on CG295, Lot 350 on CG536 (and possibly Lot 101 on CG3873) by voluntary purchase for inclusion in ROSS, if:*

a. a detailed site inspection does not uncover problems (such as extensive recent clearing);

b. a purchase price acceptable to both parties can be agreed upon;

c. Lot 10 on RP48845 and Lot 524 on C311081 cannot be acquired, or if the ROSS committee decides to make major expansions to the Mount Neurum ROSS site.

6.8 Acquisition of Lot 3 on RP46404 and Lot 2 on RP18210

6.8.1 Location and status

The total area of the two blocks is 112.575 ha. Both blocks are owned by Gavin Roberts. No approach has been made to him and the blocks have not been recently inspected by Department of Lands officers. Consequently, a mutually reasonable acquisition price cannot be quoted for this report.

These blocks border both Mount Neurum ROSS blocks (Map 2).

6.8.2 Reasons for acquisition

1. These two contiguous blocks would expand the ROSS site to include much of the well-timbered eastern slopes of Mount Neurum.

2. The acquisition would simplify the ROSS site by "squaring" the boundaries.

3. These two vacant blocks are owned by the one man, which would simplify purchase, if the ROSS site is to be expanded to include much of the eastern slopes of Mount Neurum.

4. The wide road reserve of the unformed Batchelor Road can be informally included in the ROSS site (Batchelor Road provides theoretical access to other blocks - Lot 281 on CG295 and Lot 350 on CG536 - so it cannot be closed unless the other lots are also acquired).

NOTE:
There is no evidence that these blocks are for sale.

Recommendation 6.5: *Acquire Lot 3 on RP46404 and Lot 2 on RP18210 by voluntary purchase for inclusion in ROSS, if:*

a. a detailed site inspection does not uncover problems (such as extensive recent clearing);

b. a purchase price acceptable to both parties can be agreed upon;

c. the blocks previously recommended cannot be acquired, or if the ROSS committee decides to make major expansions to the Mount Neurum ROSS site.

6.9 Acquisition of Lot 349 on CG536

6.9.1 Location and status

No approach has been made to the owner and the block has not been recently inspected by Department of Lands officers. Consequently, a mutually reasonable acquisition price cannot be quoted for this report.

The block borders the northern Mount Neurum ROSS block - Lot 327 on CG1552 (Map 2).

6.9.2 Reasons for acquisition

1. This block would expand the ROSS site to include much of the well-timbered north-eastern slopes of Mount Neurum.

2. The wide road reserve of the unformed Batchelor Road can be informally included in the ROSS site (Batchelor Road provides theoretical access to other blocks - Lot 281 on CG295 and Lot 350 on CG536 - so it cannot be closed unless the other lots are also acquired).

NOTES:
The disadvantage of this block in isolation is that the shape of the ROSS site becomes much more complex, with a much greater perimeter. This block could only be considered for inclusion in ROSS, if Lot 557 on CG3873, Lot 281 on CG295 and Lot 350 on CG536 are also purchased.

There is no evidence that this block is for sale.

Recommendation 6.6: *Acquire Lot 349 on CG536 by voluntary purchase for inclusion in ROSS, if:*

a. a detailed site inspection does not uncover problems (such as extensive recent clearing);

b. a purchase price acceptable to both parties can be agreed upon;

c. Lot 557 on CG3873, Lot 281 on CG295 and Lot 350 on CG536 are also purchased.

6.10 Acquisition of Lot 558 on C311567

6.10.1 Location and status

No approach has been made to the owner and the block has not been recently inspected by Department of Lands officers. Consequently, a mutually reasonable acquisition price cannot be quoted for this report.

The block borders the northern Mount Neurum ROSS block - Lot 327 on CG1552 (Map 2).

6.10.2 Reasons for acquisition

1. This block would expand the ROSS site to include much of the well-timbered western slopes of Mount Neurum.

2. The western boundary borders cleared lowland.

3. It is 3.0 km closer to Woodford and the highway than the Fraser Road access option.

4. It requires only 1.5 km of road construction to access the block (Alternatively, the block is also accessible from the formed section of Perkins Road, from Fraser Road to the south).

5. Road construction to the block is simple, because the slope is gentle, the vegetation is light and the route is flood-free.

NOTES:
This block has a house built on it, which would significantly add to the cost of voluntary purchase.

There is no evidence that this block is for sale.

Recommendation 6.7: *Acquire Lot 558 on C311567 by voluntary purchase for inclusion in ROSS, if:*

- *a. a detailed site inspection does not uncover problems (such as extensive recent clearing);*
- *b. a purchase price acceptable to both parties can be agreed upon;*
- *c. the blocks previously recommended cannot be acquired.*

7.0 WILDLIFE CORRIDORS AND VOLUNTARY CONSERVATION AGREEMENTS

7.1 The problems of isolated fauna and flora pockets

Almost all the properties bordering Mount Neurum have been cleared for grazing. Mount Neurum is thus in great dander of becoming a small isolated fauna and flora pocket. Such pockets inevitably degrade over time. Animal species disappear because they cannot survive harsh times by temporary relocation. Vegetation species disappear because they do not survive repeated catastrophic events (such as high-intensity fires) and cannot recolonise from distant separated sites.

7.2 The wildlife corridor to Mount Delaney and Mount Archer

There is a tenuous wildlife corridor south-west from Mount Neurum across private properties to Mount Delaney (also on private property), Mount Archer and Mount Mee State Forest (Photographs 26, 27 and 28, and Map 7). However, there are too many private properties involved to make voluntary purchase a practical option.

From the aerial photograph, these properties appear to include (moving south-west from Neurum):

a. Lot 2 on RP50344;
b. Lot 11 on RP48845;
c. Lot 6 on RP45397;
d. Lot 11 on RP160319;
e. Lot 4 on RP50344;
f. Lot 9 on RP45397;
g. Lots 7,8 and 9 on RP179665;
h. Lots 2,3,4 and 5 on RP178174;
i. Lot 3 on RP160234;
j. Lot 550 on C311171;
k. Lot 551 on C311295;
l. Lot 402 on CG862;
m. Lot 172 on SL243;
n. Lots 1 and 2 on RP177211 (Mount Delaney is on Lot 2);
0. Lots 1 and 2 on RP207429;
p. Lot 32 on S312872;
q. Lots 38 and 39 on SL1859;
r. Lot 90 on SL1877;
s. Lot 181 on SL526.

NOTES:

1. Some of these lots may have been cleared since the aerial photography of 1991;
2. Many of these lots are already mostly cleared and the wildlife corridor occurs only along the boundary lines of the properties.
3. Other lots still support significant vegetative cover.
4. Some lots can be totally cleared without severing the wildlife corridor - other lots are essential to it.

7.3 Voluntary Conservation Agreements

Under ROSS, private land which has a special feature such as remnant native vegetation or wildlife habitat can be protected by the landholder entering into a voluntary Conservation Agreement under the *Nature Conservation Act*.

This is a little-used option in ROSS, but one which needs to be applied to the Mount Neurum wildlife corridor problem.

However, it needs to be pursued with tact, care and sensitivity. ROSS is now feared by many rural landholders. Some landholders are now convinced that ROSS has sinister undeclared powers to compulsorily acquire or control their properties. If any rumours begin to circulate regarding a possible ROSS wildlife corridor on private property at Mount Neurum, the bulldozers will immediately be called on to destroy the corridor.

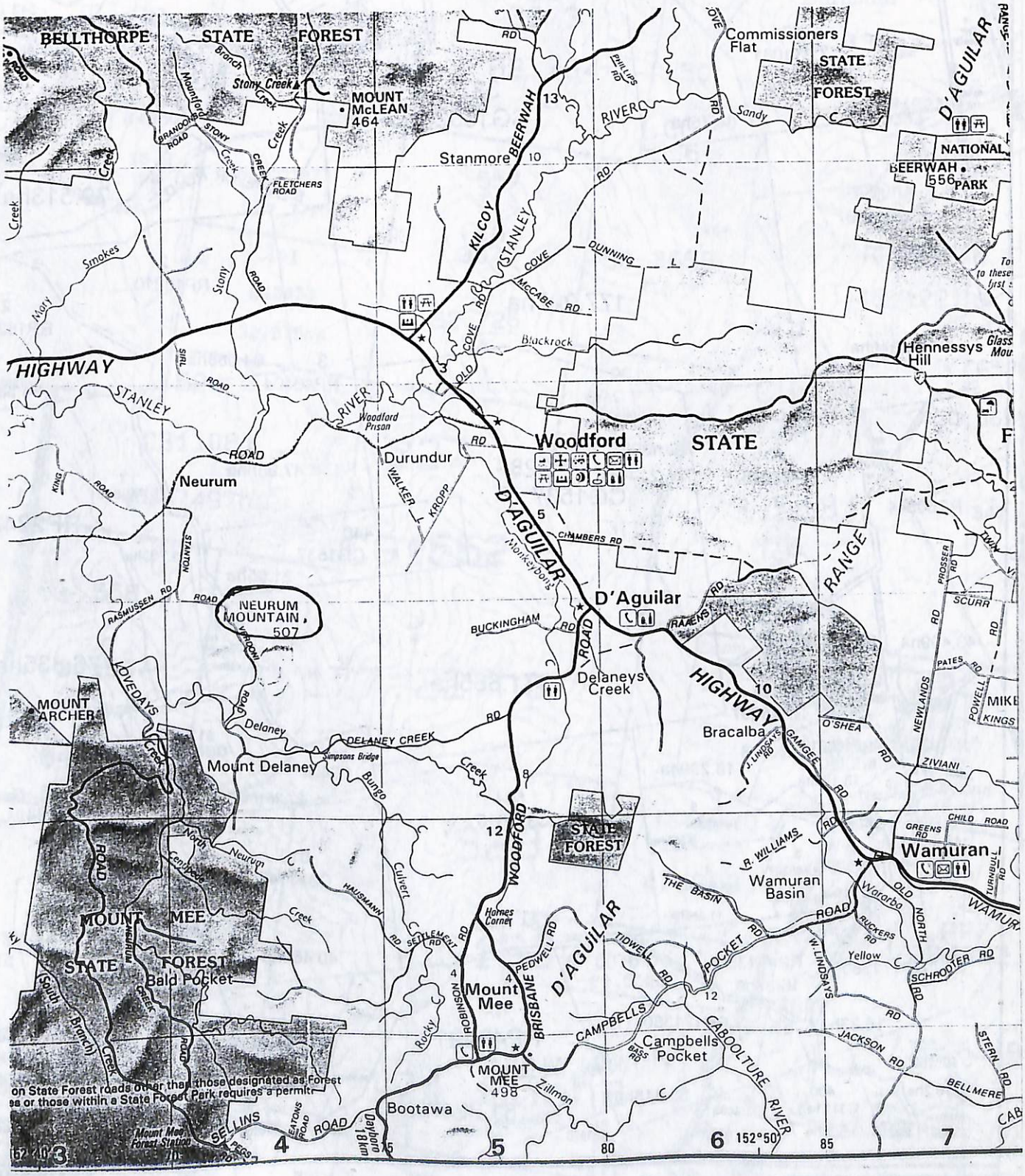
If ROSS had been properly explained to property holders so that it was perceived as an opportunity and not as a threat, the conservation instincts of many landholders could have been called on for unrewarded tree retention. Landholders could have taken pride in the importance of their properties to a greater community good.

In the present situation, if the present wildlife corridor is to remain in existence, there needs to be some payment (possibly one-off, preferably annual) to landholders to retain the segments of the wildlife corridor on their properties. Once it is severed, the value of the remaining segments is much reduced. These funds could come from rate discounts or land tax discounts, but would best be direct ROSS funding in the short term, until acceptable alternatives are implemented.

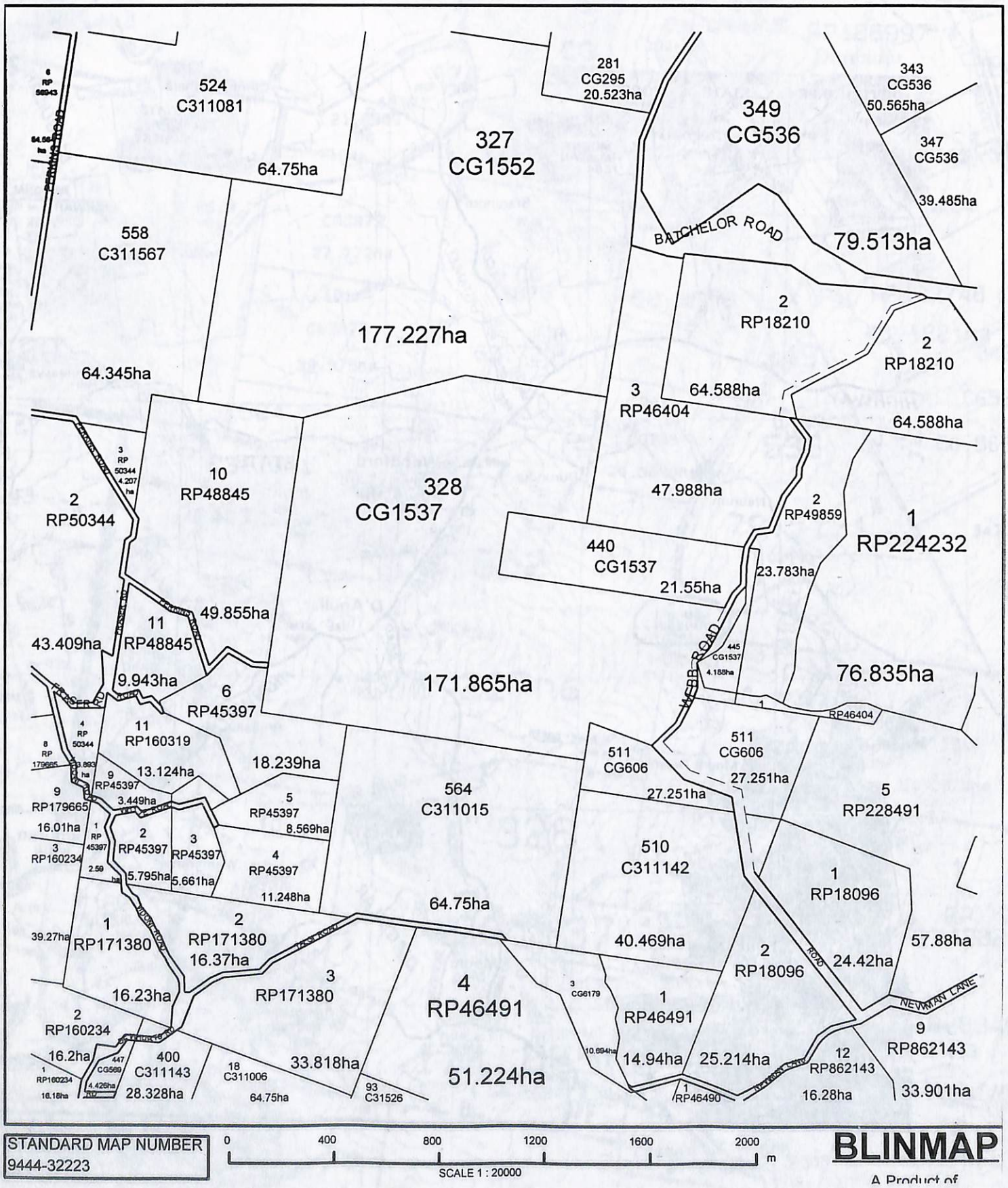
Recommendation 7.1: *Use ROSS funding to fund voluntary Conservation Agreements to retain a wildlife corridor on private properties, linking Mount Neurum with Mount Delaney and Mount Mee State Forest.*

Recommendation 7.2: *Carefully plan how this wildlife corridor may be preserved to the mutual benefit of individual landholders and the general community, without generating a destructive "clear-it-all-now-before-the-Government-can-stop-us" response.*

8.0 MAPS



Map 1: The location of Mount Neurum



STANDARD MAP NUMBER
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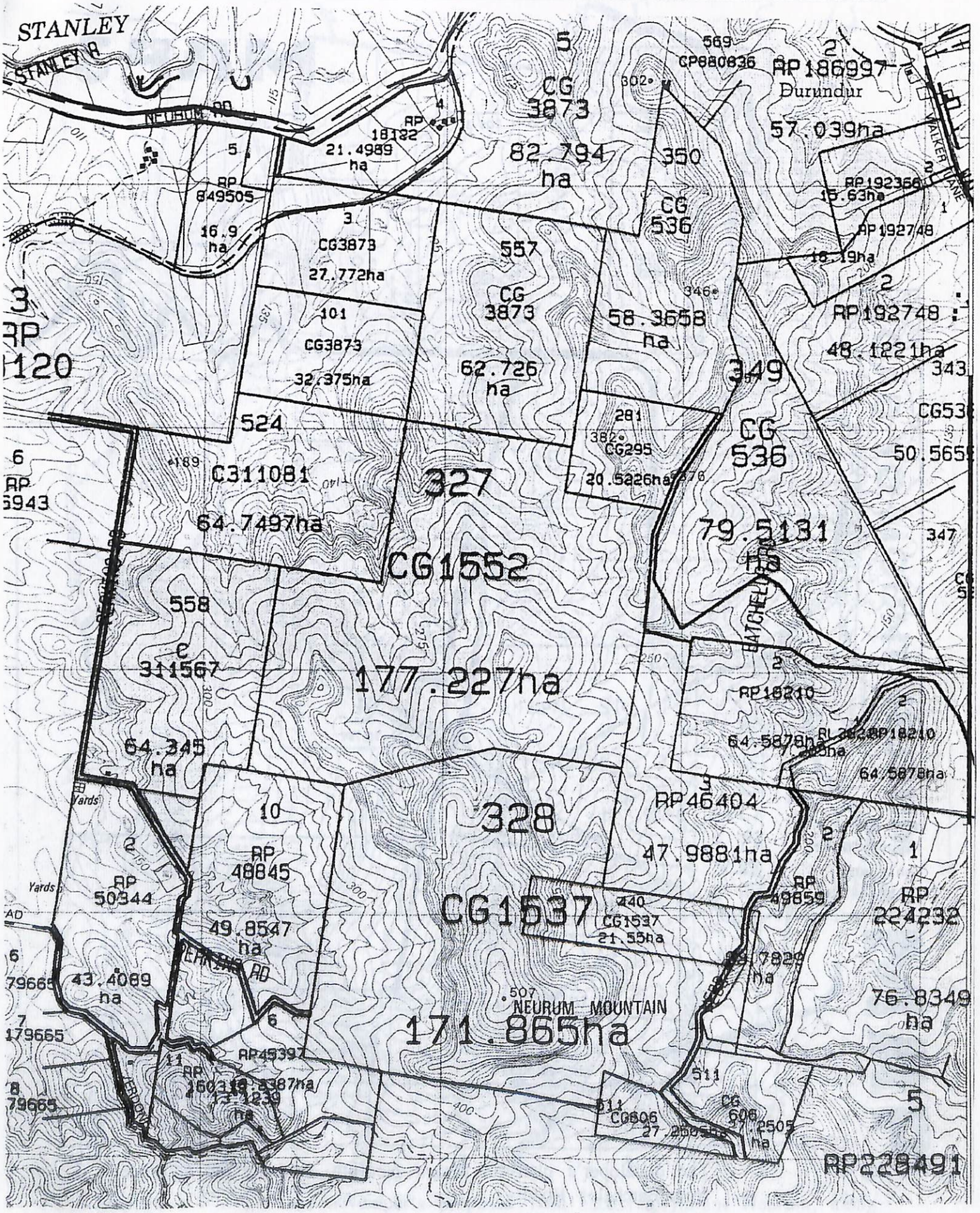
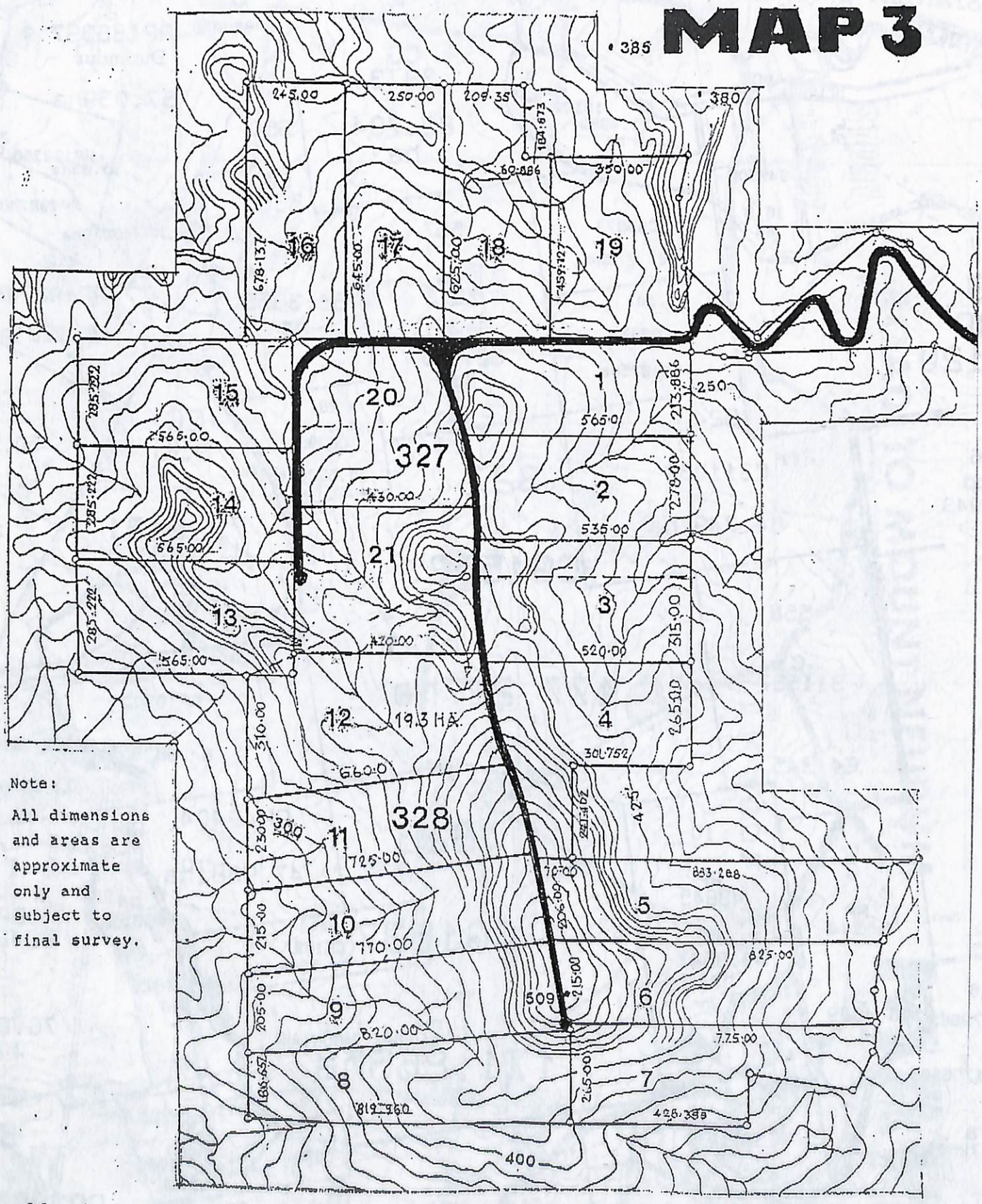
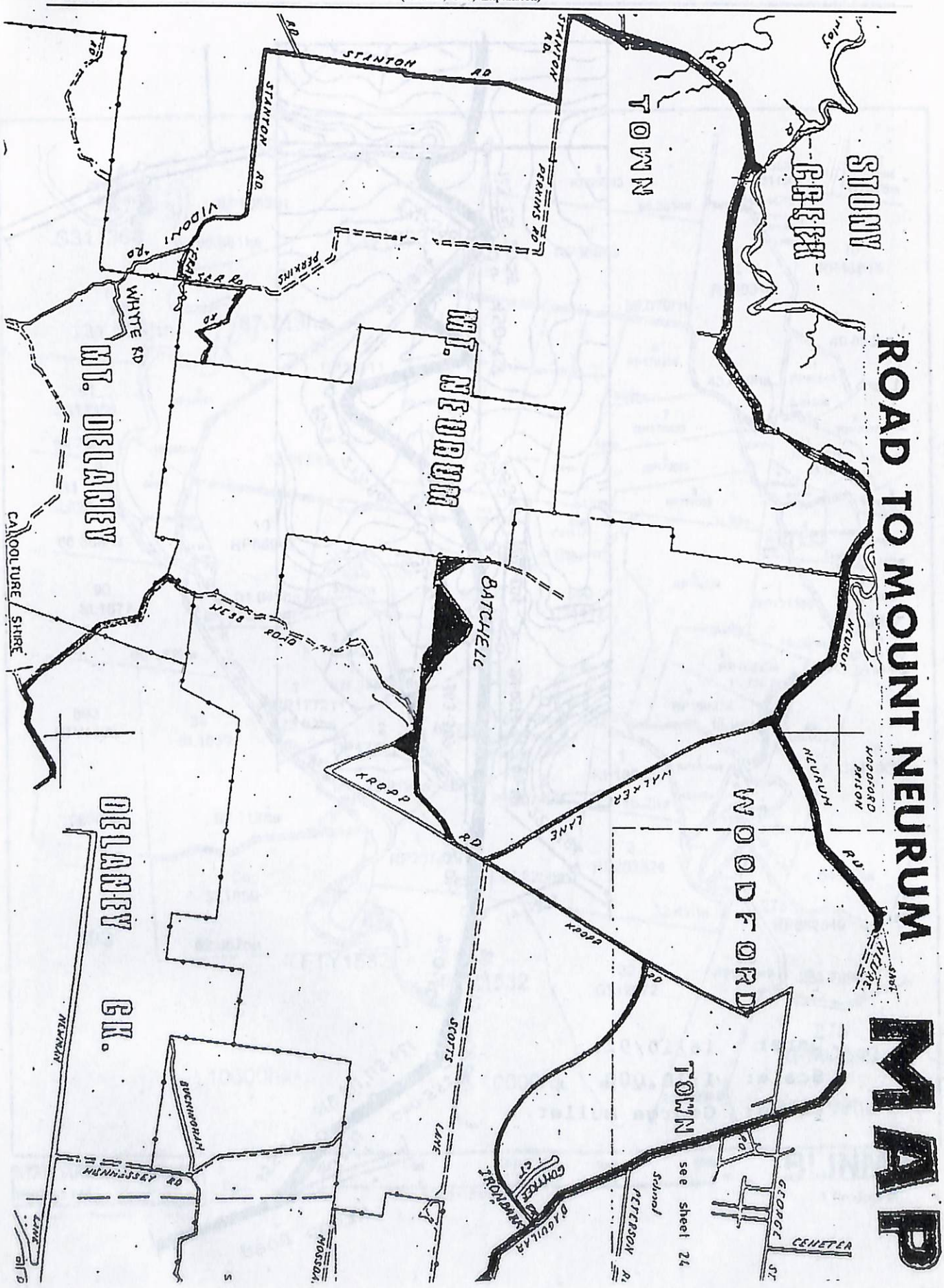
Map 2: Property boundaries on Mount Neurum
(Compare with Aerial Photographs 1 and 2)



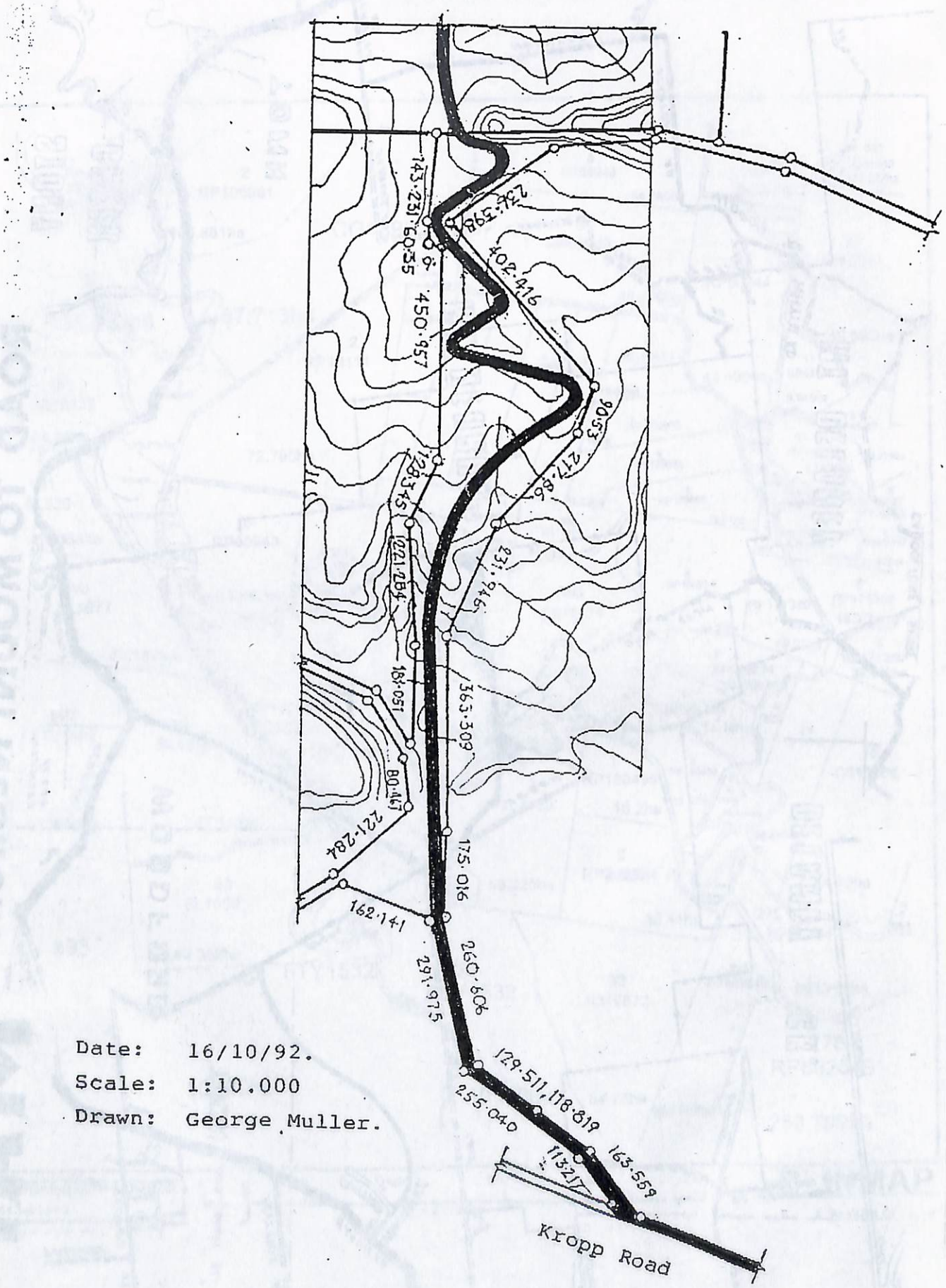
Map 3: The topography of Mount Neurum



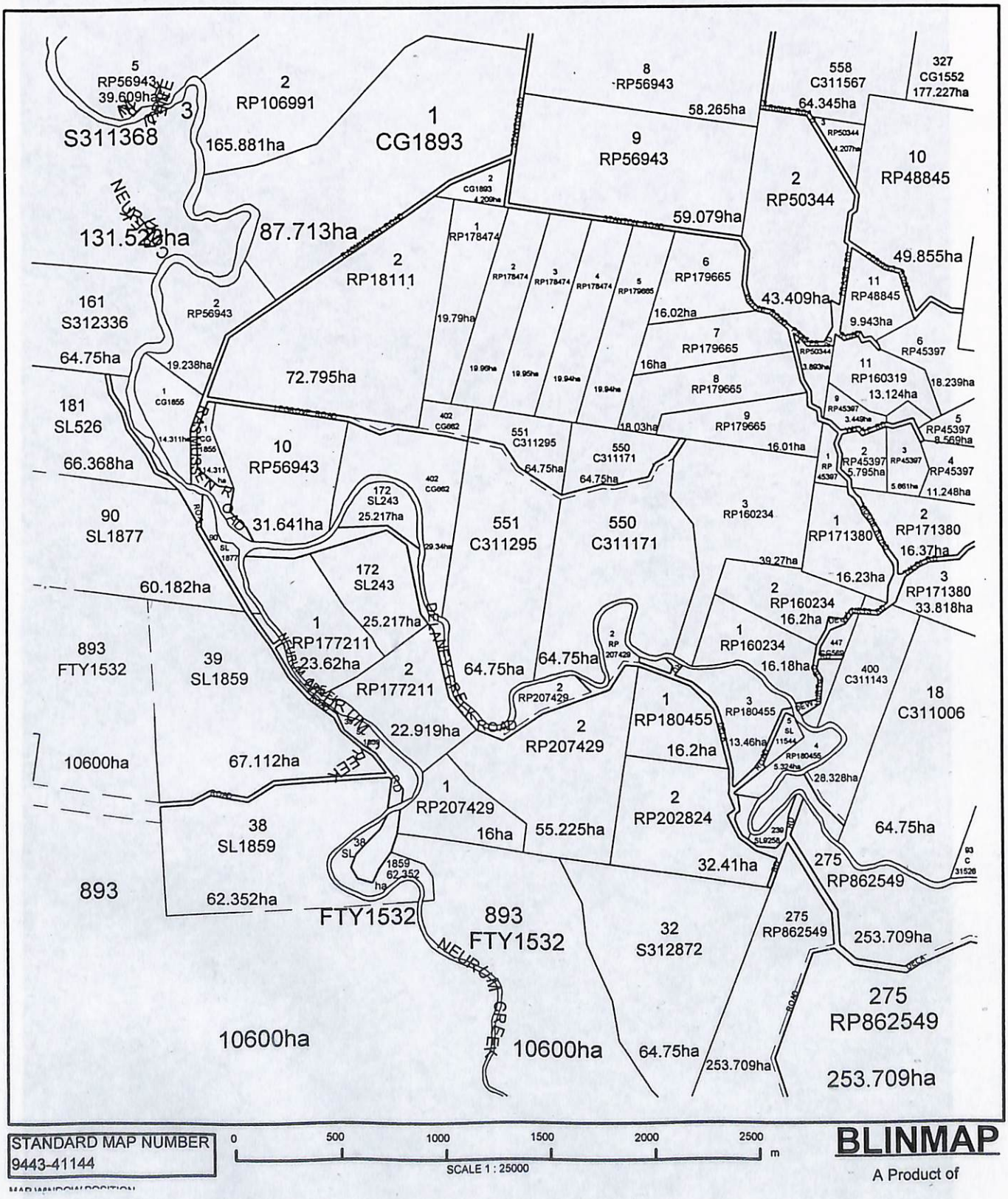
Map 4: The developer's plan for Mount Neurum, showing the entrance from Batchelor Road



Map 5: The developer's proposed road access to Mount Neurum, along Kropp Road and Batchelor (Batchell) Road



Map 6: The developer's proposed road access to Mount Neurum, along Batchelor (Batchell) Road



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BLINMAP
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Map 7: South-west of Mount Neurum
(Compare with Aerial Photograph 3)

9.0 PHOTOGRAPHS

Photograph 1: The vegetation of Mount Neurum (northern end)

Photograph 2: The vegetation of Mount Neurum (central and southern end)

Photograph 3: Mount Neurum from Woodford

Photograph 4: Mount Neurum from D'Aguilar

Photograph 5: Mount Neurum from Mount Mee

Photograph 6: Mount Neurum from Neurum

Photograph 7: Mount Neurum from Villeneuve

Photograph 8: Mount Neurum from Neurum Road, to the north

Photograph 9: Possible Batchelor Road (south)

Photograph 10: Possible Batchelor Road (north)

Photograph 11: Probable Webb Road

Photograph 12: Perkins Road from the bitumen of Stanton Road

Photograph 13: Fraser Road from the bitumen of Vidoni Road

Photograph 14: The end of the formed section of Perkins Road from Fraser Road

Photograph 15: The early terrain along the unformed Perkins Road access from Fraser Road

Photograph 16: The former timber track up Mount Neurum

Photograph 17: Looking down the timber track from its junction with the present 4WD track

Photograph 18: Looking up to the plateau of Mount Neurum along the present 4WD track from its junction with the timber track

Photograph 19: Typical terrain in the higher unformed stage of Perkins Road

Photograph 20: The dam and typical vegetation on the plateau

Photograph 21: Vegetation on the upper eastern slopes

Photograph 22: A view to the north from the plateau

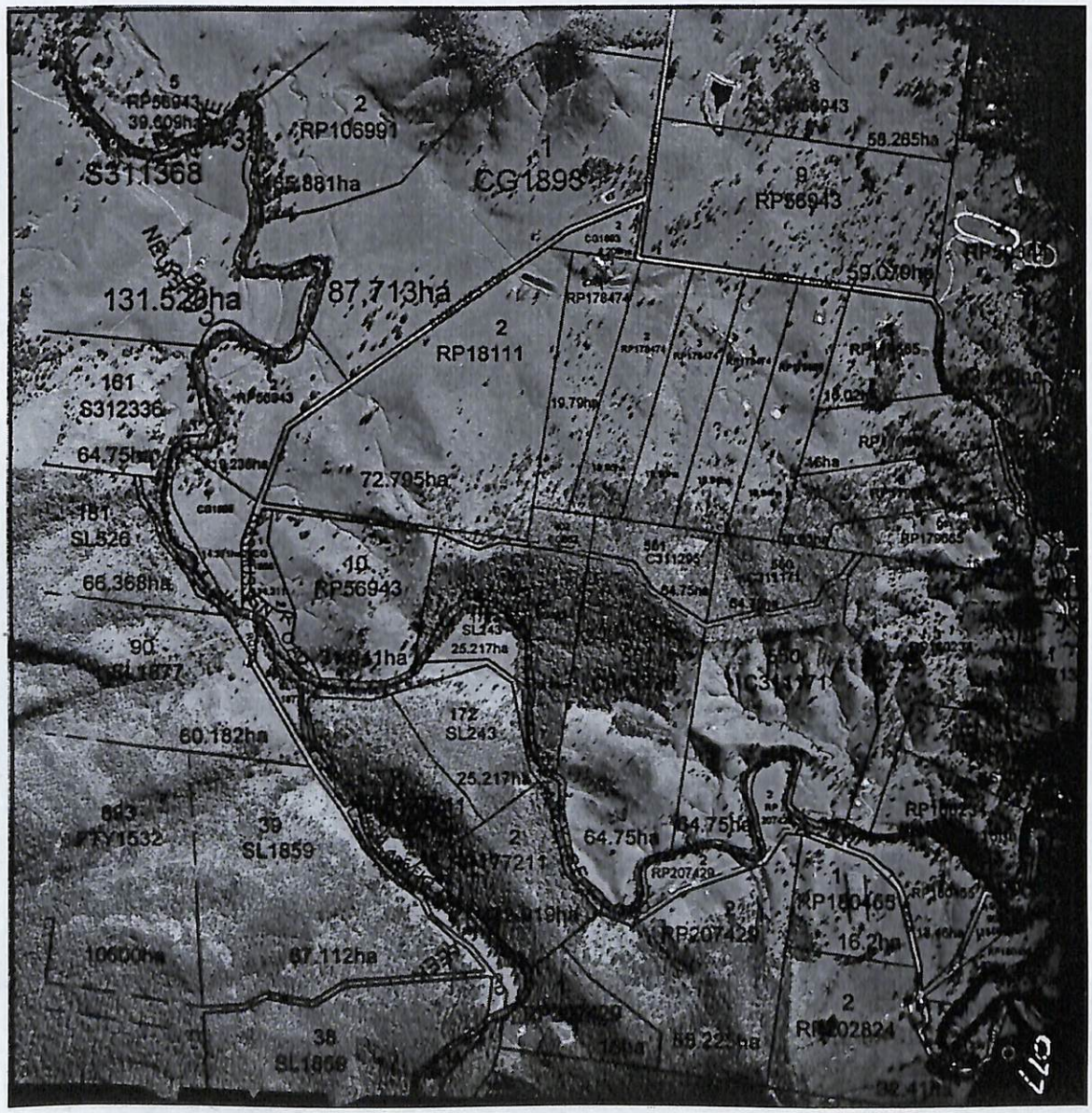
Photograph 23: A view to the south down the present 4WD track

Photograph 24: A rock gully on Lot 10 on RP48845

Photograph 25: A potential picnic and camping site, bordering Perkins Road on Lot 10 on RP48845

Photograph 26: Wildlife corridor from Mount Neurum, looking east along Delaney Creek Road

Photograph 27: Wildlife corridor from Mount Neurum, looking south-east from Stanton Road



Photograph 28: The wildlife corridor from Mount Neurum to Mount Delaney and Mount Mee State Forest