Wilsons Creek Action Group,
PO Box 325,
Mullumbimby.2482.
Ph 066 840152

PRESS RELEASE 23/1/89

An independent engineer's report has recommended that the Forestry Commission's access road to the Blackbutt Plateau - Nevasae Road - should be closed immediately and rehabilitated. This follows massive landslides and rockfalls.

In 1984, Nevasae Road was constructed across a cliff face in a high rainfall area (4000 mm in 1988) to gain access to the previously inaccessible Blackbutt Plateau. Subsequently the road collapsed in the first wet season causing serious landslides, which washed straight into Wilsons Creek, part of the Byron Shire's water catchment.

Then in 1986 the State Ombudsman found that the Commission had acted contrary to law in roading the cliff face without an EIS.

The Forestry Commission responded, firstly by trying unsuccessfully to change the EIS legislation in the New South Wales Parliament, then proposing to reopen the road in early 1989 for "research" purposes (as advised by District Forester Mr Robertson).

The Wilsons Creek Action Group (WAG) claims this to be a deceitful ploy by the Forestry Commission and describes the Nevasae Road as an "economic, environmental and engineering disaster". How can the Forestry Commission justify such massive expenditure and earthworks for research purposes?

To obtain an independent engineering assessment, Mr Russell Corben was commissioned by WAG to investigate the Forestry roading operation.

Mr Corben studied the construction and siting of Nevasae Road including associated drainage, erosion and siltation and presented options for the future. He concluded that the evidence supported the assumption that there has been inadequate expert engineering input into the project. The disastrous results suggest that the environmental risks inherent in road consruction on such a site had not been properly identified. He also noted that the grade of Nevasae Road was significantly greater than the maximum specified in the Forestry Commission's own Environmental Review. The grade of Nevasae Road is significantly steeper than the maximum stipulated in the Forestry Commission's own Environmental Review.

Mr Corben assessment agreed with District Forester Mr Robertson that attempts to reopen Nevasae Road could not be guaranteed, further slips are inevitable and erosion will continue.

WAG has expressed concern at statements by the District Forester that roading will recommence regardless of the probability of further landslips. WAG has called on the Forestry Commission to abandon their "Daintree" type roading operation in light of Mr Corben's assessment and immediately move to rehabilitate the Nevasae Road.

RUSSELL G. CORBEN BE(Syd)LGE(NSW & Q)

CONSULTING CIVIL ENGINEER (retired)

Land use planning, project management

Wilsons Creek,
Mullumbimby,
N.S.W.2482.
Ph. 066 840156

NEVASAE ROAD, Upper Wilsons Creek.

AN ENGINEERING ASSESSMENT

Nevasae Road was constructed for 1.5 km mostly over lands outside the Nullum State Forest to provide access from Upper Wilsons Creek Road to the Blackbutt Plateau for the purpose of logging. The NSW Forestry Commission was responsible for planning and supervision of the work.

This report is provided for the Wilsons Creeek Action Group which has strongly protested the proposed logging for the past six years.

INSPECTION

An on-site survey was made 11 Dec 1988 using 100 metre tape, compass and clinometer. The surveyed alignment of the road was confirmed as the unmarked road shown Topographic Map HUONBROOK 9540-1-N Scale 1:25,000 of 1986.

LANDS INVOLVED

The route commences at the Upper Wilsons Creek Road just upstream of Fern Dip.

* the first 30 or 40 m of the road appears to be on LOT 1 of D.P.259954 of former PORTION 26, PARISH OF TOOLOND, COUNTY OF ROUS.

* it then crosses an unmade reserved road to a padlocked gate which is the point of origin for this measured length of Nevasae Road.

* 00 to 320 m is over PORTION 55.

* 320 to 560 m and
  780 to 1170 m is over PORTION 66.

* 560 to 780 m is over PORTION 57.

* these measurements were scaled from Topographic Map since the Portion boundaries were not observed on the ground.

* Portions 55,66 and 57 were held as Settlement Purchase Lease 44/1 Lismore and access to make the road was gained by the Forestry Commission with completion by the lease-holder of a Permit to Enter. Conditions attaching to the agreement are not known.

RESIDENTS INVOLVED

The Wilsons River downstream from the Nevasae Road is the source of water for the town of Mullumbimby and for a large number of residents who live in the valley of the Wilsons River above the dam at Laverty's Gap. Water is drawn from the stream for domestic use and is legally protected from siltation, turbidity and other contamination.

These lands were proclaimed 11 March 1955 as part of the Mullumbimby Water Supply Catchment District, and have 7(c) Zoning - Water Catchment in the Byron Shire Local Environment Plan of 1988.

The residents are also gravely concerned about the disturbance to their normal peaceful use of the mountain valley's narrow winding roads by logging trucks.

EARTH SLIPS AND SOIL EROSION.

From the Upper Wilsons Creek Road to the measured distance of 900 m the Nevasae Road was formed by cutting into side slopes of 35 to 45^{o} in brown podsolic soils with rhyolite rock showing occasionally as a substrate. This section shows many land slips due to slope instability and active erosion by water scour. These are caused by the roadworks which have undercut the uphill slopes and diverted and concentrated the natural flow of surface water run-off.

In this section 00 to 900 m there were recorded:-

a) NINE places with gully erosion caused by water scour. Of these, FIVE places discharged directly into Wilsons River. Eroded soil would be washed into Wilsons River when there was rainwater run-off.

b) NINE landslips were observed where the ground above the road had slumped towards and/or on to the road - toppled trees and palms were noted 20 m above the road.

A major land slip 70 m long and 15 to 20 m high in brown soil at 800 m probably occurred at the time of construction.

c) Active soil erosion was noted in the tabledrain of the road in the first 50 m from the locked gate. The erosion gully measured 1.5 X 0.7 m in width and depth - seepage water was flowing. This is at the point where the run-off from a major side catchment would cross the road as shown on the topographic map. No provision for the control of this water was

observed and it is more than likely that heavy pollution of Wilsons River would occur from this large catchment.

ROCKFALL

Between measured distance 900 and 1200 m the Nevasae Road was made by cutting into rhyolite rock formation with a natural side slope of 45° to 50°. This section has suffered a slope failure, due to undercutting, with a massive rockfall starting some 30 -40 m above the road, and covering the road completely over a length of some 90 m. The fall of rocks, rubble and soil has spread below the road for a slope distance of about 200 m spilling finally on to what was most likely former cultivation land. This is close to a stream bed which is a major tributory of the Wilsons River and flows into it 250 m further on.

The raw rock face and spill have a slope area of about 1.8 ha which is highly visible from the Upper Wilsons Creek Road as a scar in the green mountain side.

GRADE OF NEVASAE ROAD.

a) Clinometer readings of gradients on the road were taken at measured distance 500 m which indicated 12° uphill/12° downhill and at 700 m the uphill reading was 12° to 15° uphill.

b) Measurements made on photographs of the rockfall show the gradient as 15° to 16° between 950 and 1150 m.

c) These gradients indicate that the road was built to a grade significantly steeper than the maximum of 10° stipulated in the Forestry Commission's own Environmental Review of 1983.

OPTIONS FOR THE FUTURE

OPTION I. LEAVE AS IS.

a) The route is not accessible for motor vehicles due to the diversion banks, soil slips and the large rockfall.

b) Pollution of Wilsons River will continue due to soil erosion.

c) Further earth slips will occur.

d) Further rockfalls can be expected and are a hidden danger to users of the road, particularly in the major rockfall area.

e) There will be continuing degradation of the properties.

OPTION II. OPEN FOR MOTOR TRAFFIC

a) Diversion banks will have to be removed. It is not expected that each diversion bank will be replaced with a culvert, so the present flow of surface run-off will be concentrated again with much increased erosion of scoured gullies. All of these lead to Wilsons River, some discharge directly into it and silt traps should be provided.

b) Increased pollution of Wilsons River can be expected.

c) At the existing rockfall the unstable ground above has to be removed and the roadway cleared of fallen rock and rubble.

d) Adjoining the rockfall and above the cut rock faces there is unstable ground. These areas should be investigated and all doubtful ground removed.

e) There will be continuing degradation of the properties.

OPTION III. CLOSE PERMANENTLY

It is not possible to unmake the road as most of it was constructed by cutting into the mountain side, blasting solid rock, and pushing the excavated material over the edge where it was "lost" down the natural slope.

The land cannot be returned to original condition. The best that can be done is to stabilise the mountain side above and below the existing road formation.

Stabilisation should include the following factors:-

a) Remove all ground and loose material found to be unstable after thorough investigation.

b) Construct more drainage diversion banks to minimise concentration of rainwater run-off and so reduce erosion potential.

c) Provide traps to prevent silt from entering the Wilsons River.

d) Stabilise and reduce erosion of earth slip areas by trimming, draining, revegetating etc.

e) Turbidity pollution will continue until vegetation cover is complete.

f) Further degradation of the properties will then be minimised.

CONCLUSION

Nevasae Road has been built in country where there was a fragile balance held between a steep mountain side, vegetation and a particularly heavy rainfall.

Competent investigation in the location of the route and design of the road would have disclosed the environmental risks inherent in constructing a road in this place.

The risks were:-

a) Excavation in side-cut weakens the slopes and gives rise to landslides.

b) Road formation across the slopes intercepts the natural flow of drainage, concentrates the flows to just a few places with consequent erosion and pollution of the waters of Wilsons River.

c) The road doubles back on itself and this fact conpounds the problems. Drainage water is concentrated at the upper levels from where it erodes down the slopes and mixes with landslides onto the road below.

d) Where rock was blasted with explosives expert knowledge was required to avoid shaking the hillside and increasing the hazard from loosened ground above.

A reasonable assumption is that there was a lack of sufficient involvement of professional engineers in this project.

The recommended option is permanent closure as being the only way to minimise the continuing damage to the lands and to the pollution of the Wilsons River.

R.G.Corben
11-1-89

APPENDIX A

NEVASAE ROAD - ENGINEERING ASSESSMENT

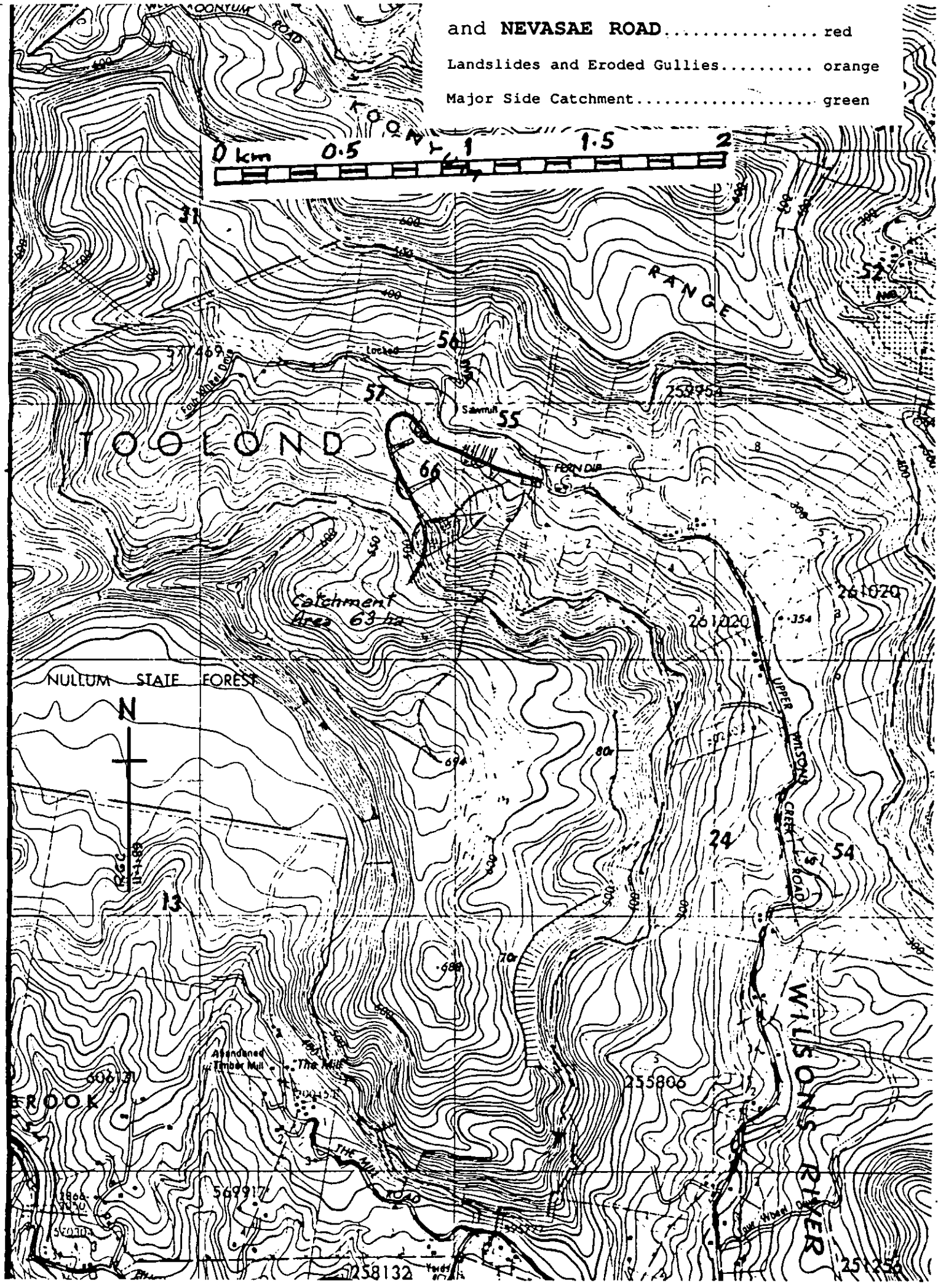
SURVEY FIELD NOTES (EDITED)

Recorders: Leath Stewart, Russell Corben.

Chainage	
00 metres	gate
00-46	gully erosion in table drain on high side.
46	diversion bank
69	d/b interval 23 m.
95	d/b interval 26 m.
100	active scour from road towards Wilsons Creek.
120	d/b interval 25 m.
150	d/b interval 30 m. M/traffic block; U/H eroded side creek water flowing
170	d/b interval 20 m.
195	d/b interval 25m. outlet active scour (to Wilsons Creek?)
220	d/b interval 25 m. large scour downslope above road, landslip on to road, scour below road to Wilsons Creek.
244	d/b interval 24 m. dge line crosses road severe scour down to Wilsons Creek.
255	uphill major scour, many slips, toppled trees, downhill active scour right to Wilsons Creek.
280	uphill landslide onto road, toppled palms extends 20 m above the road.
283-300	water along topside of road in a little gully (L.S.)
300-400	three (3) d/b - less erosion rock substrate (L.S.)
420	d/b
-	d/b
464	d/b uphill landslide onto road
484	d/b uphill landslide onto road
500	uphill landslide onto road bearing 270° grade 12°
515	d/b new bearing 310° road grade 12°
-	d/b
615	d/b
-	d/b
-	d/b
-	d/b
700	new bearing approx 115° sighting difficult - grade 12-15°
400-700	road doubles back on itself
700	d/b d/b d/b
820	d/b
845	active scour from road
860	d/b major landslide onto road begins
883	d/b
900	major scour with landslips from road right down to road at lower level probably about chainage 300 m.
910	RC Pipe Culvert 450 mm diameter (?)
928	major landslide onto road ends
	d/b d/b
1000	d/b
	d/b

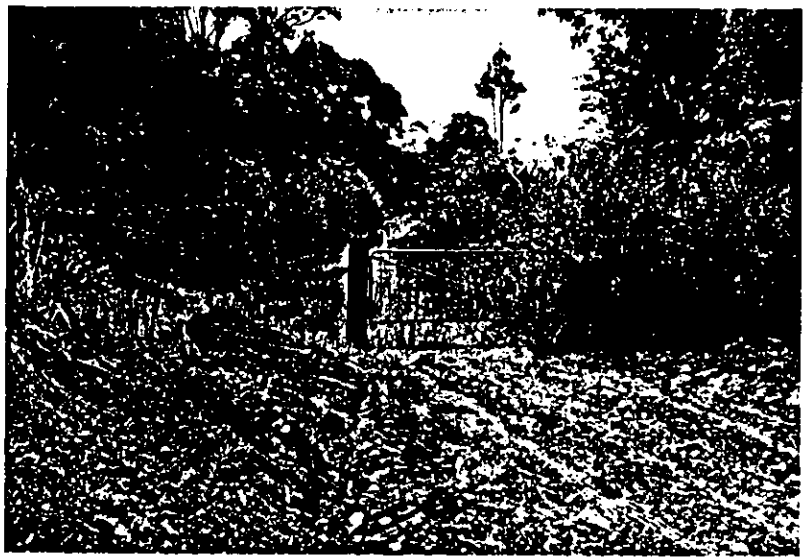
1065 massive rockfall blocks road completely. estimated length of road covered 80-90 m. estimated height of landslide above road 30-40 m. hillside slope 50° uphill, 45 to 50° downhill. This landslide comprised highly unstable large boulders with mostly unconsolidated rubble etc between boulders. The risk of crossing this section was judged an unnecessary exposure for the present purposes. The survey was terminated at this point.

Note: a few diversion banks may not be recorded. Average interval between banks 25 - 30 m.


BLACKBUTT PLATEAU..... yellow
and NEVASAE ROAD..... red
Landslides and Eroded Gullies..... orange
Major Side Catchment..... green
0 km 0.5 1 1.5 2
TOOLOND
RANGE
NULLUM STATE FOREST
Catchment Area 63 ha
FERN DR
Locked
Sawmill
Abandoned Timber Mill
The Mill
THE MILL ROAD
WILSONS RIVER
UPPER WILSONS CREEK ROAD
BROOK
N
31
56
57
55
66
24
54
13
259954
261020
255806
251250
258132

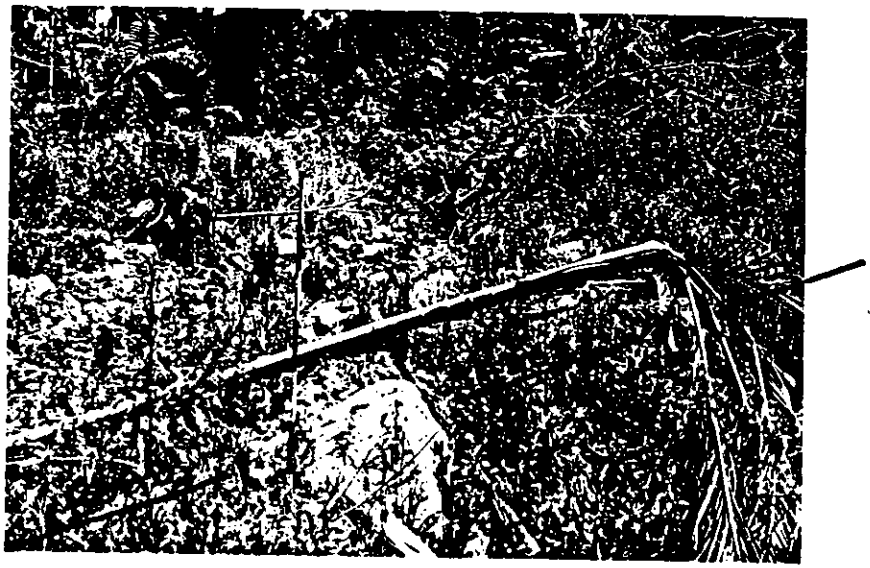
PHOTOGRAPH 1 (left)

At 00 m, gate on boundary of reserved road and PORTION 55
Note table drain erosion on high side of Nevasae Road.



PHOTOGRAPH 2 (right)

At about 500 m, shows typical diversion bank constructed to reduce damage by concentrated rainfall run off. Person with 2 m ranging poles gives idea of size. In background is Koonyum Range (eastern part).



PHOTOGRAPHS 3 (above left), 4 (above) and 5 (left).

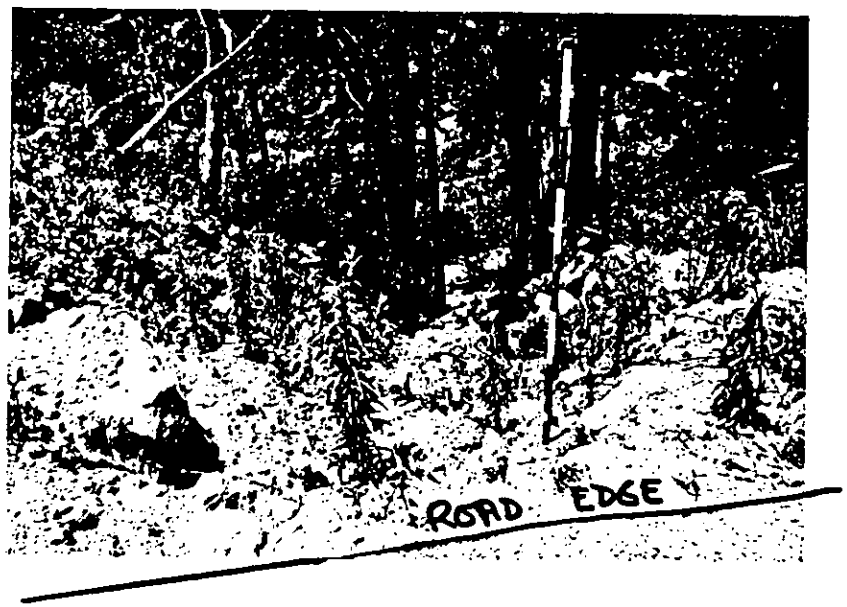
Between 400 and 500 m. Three places where concentration of drainage from upper level of road has caused scouring and land slumps down the hill side onto the road at the lower level.

PHOTCGRAPH 6 (right)

At 244 m (photograph taken from the edge of Nevasae Road). Drainage scour with landslips from the road right down to Wilsons Creek where water is showing in photograph. In background is the Upper Wilsons Creek Road.

PHOTOGRAPH 7 (left)

At 900 m (photograph taken from the edge of Nevasae Road). Drainage scour with landslips from road down hillside spreading out some 80 m below.



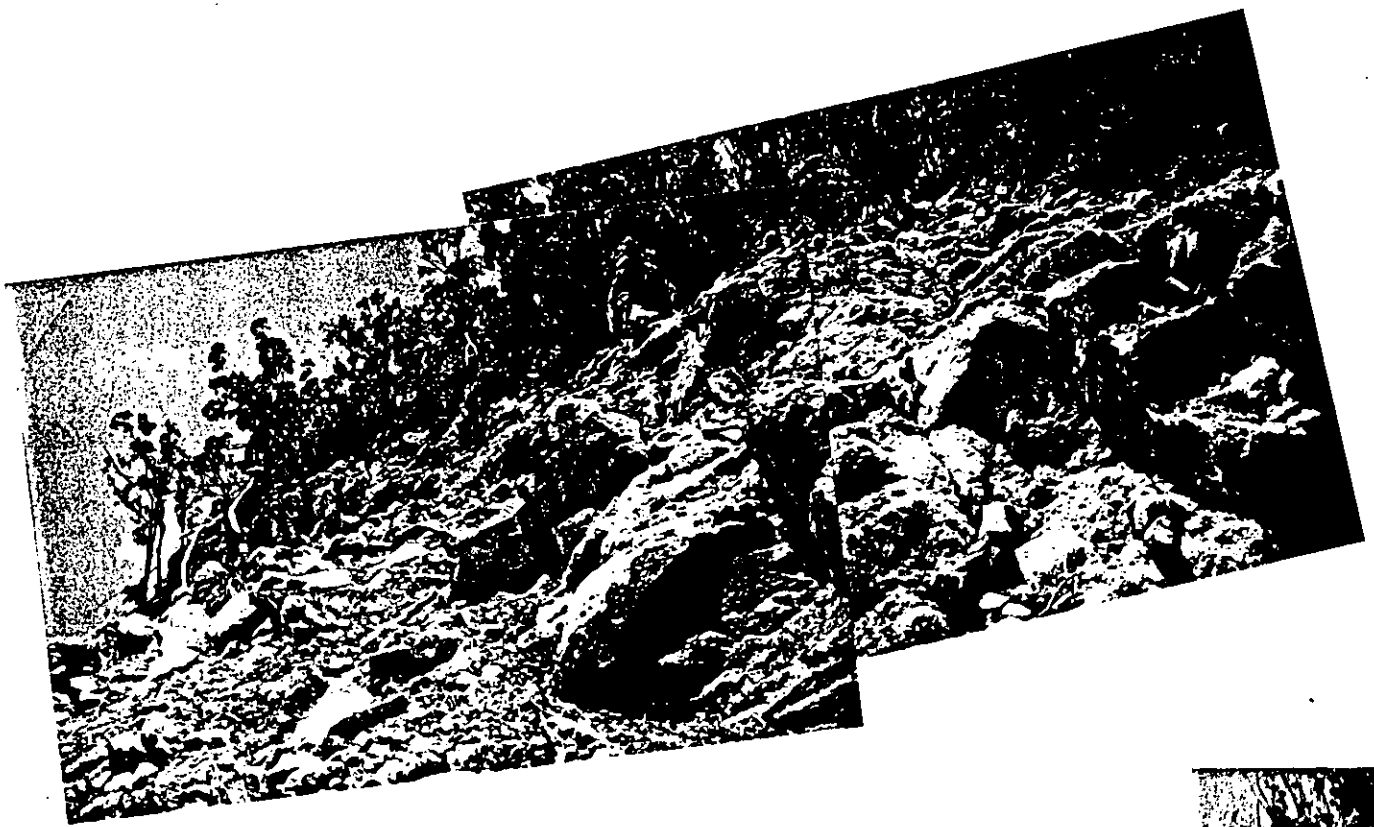
PHOTOGRAPH 8 (above)

View down road looking NW with Koonyum Range (western part) in the background. Note person on the road.

At 900 m mountainside of slope 40 - 45° rendered unstable by construction of road.

PHOTOGRAPH 9 (above)

View up road.



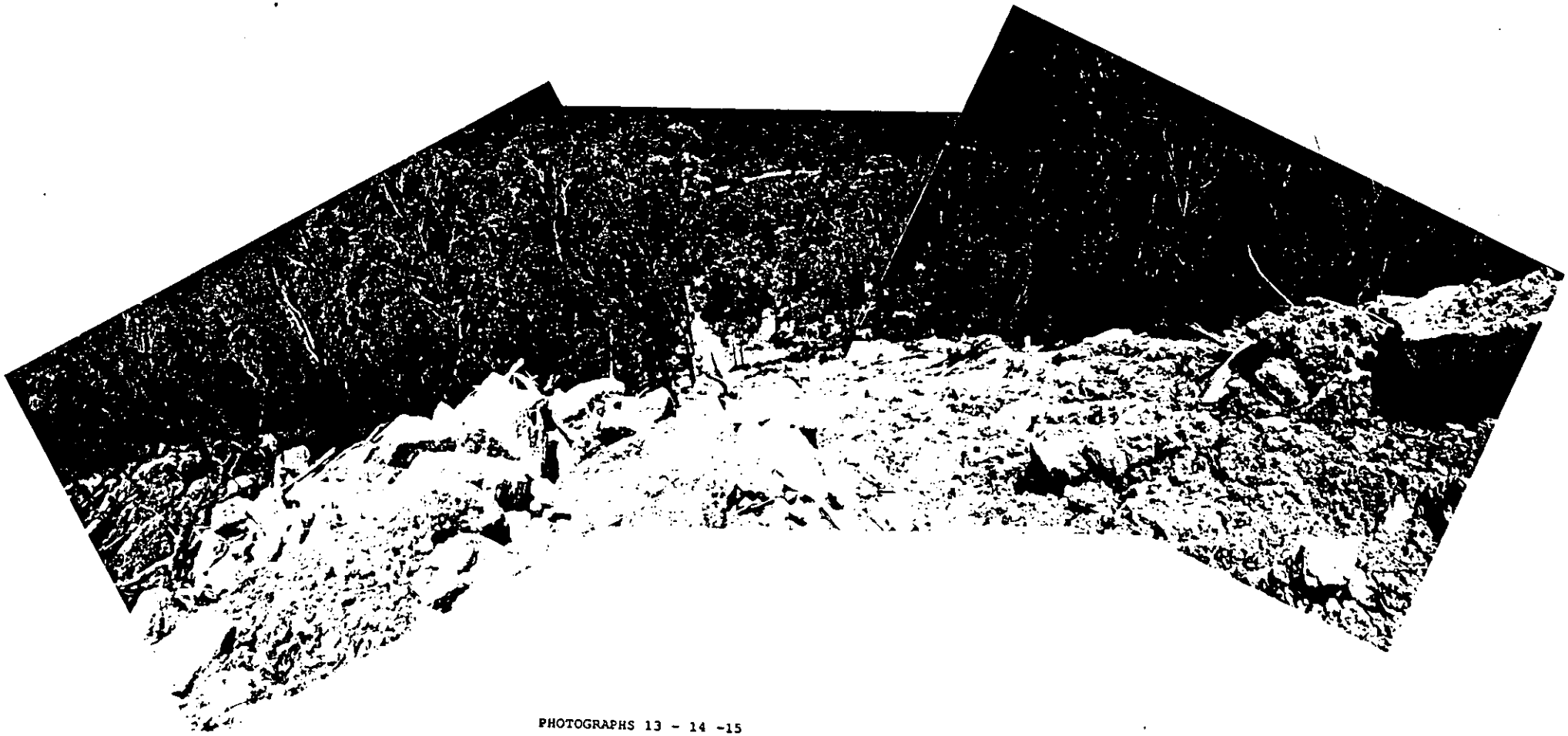
PHOTOGRAPH 10 (below)

At 1065 m Nevasae Road completely blocked over nearly 100 m by massive rockfall. Our party did not venture across this unstable ground. Spilled slope is 35 - 40°.

EDGE

PHOTOGRAPHS 11 - 12 (above)

At 1100 m, "panorama" with two over-lapping photographs of rockfall area above Nevasae Road. Note unstable nature of loose rocks and over hang along top edge with rocks and trees.



PHOTOGRAPHS 13 - 14 -15

At 1100 m "panorama" using three photographs to show rock fall below Nevasae Road. Note the Upper Wilsons Creek Road in the background.

The lower level of Nevasae Road and the Wilsons Creek are just beyond the end of the rock fall debris.

On the extreme left is part of Nevasae Road.

PHOTOGRAPHS 16 (above) and 17 (right)

Unstable ground above Nevasae Road.

Both photographs show cut rock faces rising above the road between 900 and 1200 m. Note cracked rock face, loose rocks, poised soil and trees typical of this section.

Two views from the Upper Wilsons Creek Road.

PHOTOGRAPH 19 (above)

The massive rockfall is highly visible. The grade line of Nevasae Road can be seen leading to the rockfall.

PHOTOGRAPH 18 (left)

This heavily scoured hillside leads directly from Nevasae Road to Wilsons Creek.

The lower part of another scoured section from the road is seen on the right of the picture. This also discharges directly into Wilsons Creek.

page 1 THE NORTH STAR (Lismore) 25/10/91

Rainforest illegally logged: Action group

By RUSSELL ELDRIDGE

Another logging row has broken out, with claims that the NSW Forestry Commission has illegally logged a rainforest next to the Blackbutt Plateau, near Mullumbimby.

The Wilsons Creek Action Group (WAG) claims that the commission has logged 500-year-old brushbox trees and cleared an understorey of 150-year-old coachwood in the Mt Jerusalem rainforest.

WAG also claims that it is a pre-emptive strike to devalue an area which the Opposition Labor Party proposes to declare a national park.

The regional forester, Mr John Bruce, has denied that the logging was illegal. He also said that at the time of logging, the commission was unaware of the ALP proposal.

Mr Bruce said from Coffs Harbour that the commission did not classify brushbox as rainforest, but as wet sclerophyll forest.

He conceded that coachwood was a rainforest species but said it was also a characteristic of wet sclerophyll forest.

The North East Forest Alliance has entered the row, demanding the resignation of the Minister for Conservation and Land Management, Mr Garry West.

A NEFA spokesperson, Mr Andrew Steed, said the Forestry Commission was out of control.

"It is no longer sufficient to confront the Forestry Commission," Mr Steed said.

"It is the direct responsibility of Mr West to ensure his department obeys the law. If he cannot control the commission, or chooses not to, then he is breaching the doctrine of ministerial responsibility under the Constitution and should resign."

WAG, which was formed to protect the old-growth forest of the Blackbutt Plateau, also claims that there has been 'extraordinary waste' in the logging operation, which took place in March.

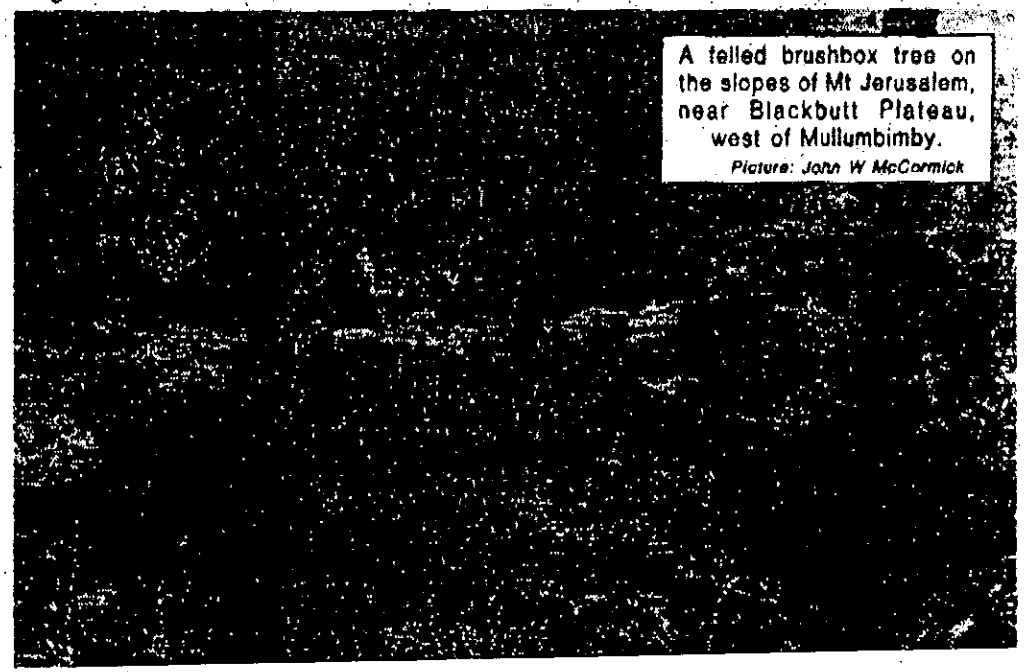
WAG says that old brushbox have been felled and left, forming huge stockpiles of log ends.

But Mr Bruce said that it was characteristic of brushbox to have fungal rot inside the base of the tree. He said WAG was probably referring to these sections.

On a NEFA claim that the area should have been subject to an environmental impact study, Mr Bruce said that it was a matter of interpretation because of recent court decisions.

He said the commission had agreed to complete an environmental impact study for the entire Murwillumbah management area before the start of logging on the Blackbutt Plateau in 1993.

"But unless we close down the industry, we have to log somewhere before we complete the impact study," Mr Bruce said.



A felled brushbox tree on the slopes of Mt Jerusalem, near Blackbutt Plateau, west of Mullumbimby.

Picture: John W McCormick