

**AN ARCHAEOLOGICAL SURVEY OF NEBRASKA
ESTATE, SAINT GEORGES BASIN, NEW SOUTH WALES**

A report to
Shoalhaven City Council
PO Box 42
NOWRA NSW 2541

on behalf of
South East Archaeology
116 Strickland Crescent
DEAKIN ACT 2600

by

Brendan Marshall and Cathie Webb
912 Plenty Road
Bundoora VIC 3083

January 1994

TABLE OF CONTENTS

1. Introduction	1
2. Background to study area	1
3. Archaeological Background	2
3.1. General	2
3.2. St Georges Basin	2
3.3. Site Types	3
4. Field Methods	4
4.1. Survey	4
4.2. Artefact Analysis	5
4.3. Aboriginal Participation	5
5. Results	5
5.1. Pelican Road Site	5
5.2. Nebraska Road Site	6
5.3. Fisherman's Road Site	6
5.4. Site Antiquity.	6
5.5. Summary of Results.	6
6. Discussion	7
6.1. Significance Assessment.	7
6.2. Nebraska Estate.	7
6.3. Impacts on sites.	7
6.4. Legislative Protection.	8
7. Recommendations	8

References

- Map 1. Location Map of Nebraska Estate
Map 2. Survey area showing sections traversed on foot (cross-hatched)
Map 3. Sites located during survey of Nebraska Estate
Table 1. Summary of recorded artefacts.

1. INTRODUCTION.

This is a report on an archaeological survey of land forming part of Nebraska Estate, at the western end of the township of St Georges Basin on the south coast of New South Wales (Map 1). The survey was commissioned by the Shoalhaven City Council as part of an assessment to re-zone the land for dwelling-houses. The land was sub-divided at the turn of the century into Lots of 2,000 m². Many of these are forested and Shoalhaven Council has a preservation order on the vegetation in the older Lots. Other Lots are partly cleared and contain various types of constructions. The current zoning of the land is Rural.

The aim of this survey was to determine the presence of archaeological sites on Nebraska Estate; to record these according to National Parks and Wildlife Service site record cards; to assess their scientific and cultural significance; to assess the likely impact of the proposed development and to make recommendations on how the sites be appropriately managed, including the need for any further archaeological investigation.

2. BACKGROUND TO THE STUDY AREA.

Until recently, European habitation of St Georges Basin has been relatively sparse but persistent and several locations have been the focus of residential and recreational villages. Development promises to increase within the near future in the form of more permanent residences and associated infrastructural developments such as roads.

The study land is located in the hinterland, from 0.3 to 1.0 km from the shoreline of St Georges Basin. It is sandy-soiled and dissected by a small ephemeral creek, around which the land gently undulates. The floodzone of this creek is marked on Maps 2 and 3 as 1(G). The under-lying bedrock does not reach the surface.

The vegetation consists mostly of thick Eucalypt forest with a dense under-storey of acacia, hakea, ferns, sedges and grasses. There

are similarly dense areas of ti-tree scrub, especially along the creek line. The history of this vegetation is poorly known and most is probably regrowth forest from previous clearing by Europeans. However, a number of large trees throughout the Estate suggest that some remnant forest is also represented.

During Prehistoric times, the vegetation would probably have been regularly fired, hence the under-storey can be expected to have been more open and the forest more accessible than at present.

3. ARCHAEOLOGICAL BACKGROUND.

3.1. *General.*

Archaeological investigations have demonstrated that the Aboriginal occupation of the south coast has a considerable antiquity and extends back into the Pleistocene by at least 20,000 years BP (Bowdler 1976; Lampert 1971). This was during a glacial period when the sea-level was much lower and the coastline up to 16 kilometres further east than at present. The present sea-level was stabilised 6000 years ago, and many of the coastal sites post-date this event. In the St Georges Basin hinterland, most surface sites are probably less than 5000 years old but older sub-surface archaeological deposits may also exist.

3.2. *St Georges Basin.*

Recent surveys in the St Georges Basin (township)/Tomerong area have been conducted by Lance (1986), Lance & Fuller (1988), Koettig (1989), Navin (1990), and Silcox (1990, 1991, 1992). Silcox (1990) reported sub-surface artefacts at two locations near Tomerong. In a 7 by 5 km grid surrounding the subject land, 14 sites had been previously recorded. These included ten open campsites, two middens and two axe grinding groove sites.

Both of the middens were located near Tomerong township, a minimum distance of 4 km from their closest source in St Georges

Basin. Both contained *Anadara* and probably *Mytilus* (mussel) shell, both estuarine species.

The axe grinding grooves occurred to the west of Tomerong, and as this process requires water, not unexpectedly, they occurred adjacent to a creek.

The campsites (open artefact scatters) are more widespread and occur on areas which are both exposed and accessible. Sites are common along roads. In other areas of the hinterland of this region, open artefact scatters have been noted as occurring on elevated locations near creeks and wetlands. While there does not appear to be a clear pattern to the site distributions of the St Georges Basin/Tomerong area, sites do seem to cluster around the creeks and ridgelines above them. Unfortunately, the small sample of sites and lack of exposure in this area does not allow a reliable assessment of site distributions to be made. What can be said is that low density lithic scatters appear to be a typical feature of the area, and these are likely to be found wherever exposure and visibility permit.

There have been no previous archaeological surveys of Nebraska Estate and there are no archaeological sites recorded on the subject land. Its hinterland position and the presence of roads, tracks and other cleared areas, presented an opportunity to investigate sites in forest habitats which usually present little or no surface visibility.

3.3. Site Types.

On the basis of previous archaeological survey within the region a range of site types could be expected. Koettig (1989) provides a summary list of sites for the general Tomerong area which includes shell middens, open artefact scatters, rock shelters, grinding grooves, burials, ceremonial/mythological, water holes, engravings and scarred trees. Most of these are uncommon or are dependent upon the presence of exposed bedrock. Others require recognition by an Aboriginal person. Within the surrounding area, only open artefact scatters, middens and axe grinding grooves have been recorded. Since Nebraska Estate does not contain suitable rock surfaces for grinding grooves, only

middens and open artefact scatters have a high likelihood of being present.

Shell middens

These are clusters of shell (marine, estuarine or freshwater species) which represent Aboriginal food remains. They sometimes contain stone artefacts, mammal, bird or fish bone, and hearth lenses.

Open artefact scatters

These are sometimes referred to as lithic scatters and campsites, and primarily consist of stone tools lying on the surface. They represent areas where Aboriginal people made, used or repaired tools, and probably reflect food-getting activities such as hunting. These may either lie in their original position, or have been transported by various processes including water and gravity, soil movement, burrowing animals, and contemporary human action which cause soil disturbance, such as road grading. Open artefact scatters are probably often what remains of eroded artefact-bearing deposits.

4. FIELD METHODS.

4.1 Survey

The survey of Nebraska Estate was conducted by three people. Most of the area is vegetated with a dense under-storey which provides no surface visibility. The foot survey was therefore restricted to the roads through the Estate, and other areas of higher visibility such as the partially cleared SEC Lots and a walking track at the south-eastern end (Map 2). These areas were intensively searched, with a distance of 2-3m between walkers. All of the roads were graded dirt roads and had good exposure, and surface visibility of 90 to 100%. The other areas were also well exposed, with visibility in the range of 50 to 60%. An approximate 10% sample of the Estate was intensively surveyed. This comprised most of the areas with exposure and visibility.

4.2. *Artefact Analysis*

All stone artefacts were recorded as to morphological type (flake, core, flaked piece, blades, grindstone), raw material, dimensions in mm (maximum length along flaking axis, maximum width, maximum thickness), and retouch or breakage if present.

4.3. *Aboriginal Participation.*

The Jerringa Land Council were contacted prior to the commencement of the survey and their [REDACTED] participated in the fieldwork.

5. RESULTS.

Three sites were found on the subject land; two small scatters of stone artefacts and an isolated artefact. Not surprisingly, all three were located on roads where visibility was highest. The site locations are shown on Map 3.

5.1. *Pelican Road Site*

This is a lithic scatter extending over about 175 metres along Pelican Road. The site occurs either side of the creek, with the densest concentrations occurring on low ridges either side of the creek line. It was recorded only for the width of the road where it was exposed, over an area of seven to ten metres. The extent of this site beyond the road is unknown, since the area is covered in very thick vegetation with no exposure or surface visibility.

A total of 23 artefacts were recorded; an average density of less than 1 artefact per metre square. The artefacts consist mainly of quartzite and silcrete flakes, though quartz was also present in small quantities. Two blade cores, a small circular sandstone grindstone and a broken hammerstone were also recorded. These artefacts are further described in Table 1.

5.2. *Nebraska Road Site*

This is an isolated chert flake found on Nebraska Road, which marks the northern boundary of the subject area. It was located on a ridge above the creek line.

5.3. *Fisherman's Road Site*

This is a small lithic scatter located on a relatively high ridge overlooking the creek area. It was exposed on a sandy track off Fishermans Road, and covered an area of five metres square. Four artefacts were recorded; one quartzite and two silcrete flakes, and a silcrete backed blade.

5.4. *Site Antiquity.*

The lithic scatters probably pre-date the formation of the present vegetation complex with its dense understory.

The backed blade from the Fisherman's Road Site and the two blade cores from the Pelican Road Site are indirect temporal markers of prehistoric Aboriginal occupation. These artefacts appear approximately 5,000 years ago but fell out of use by about 1,000 years ago. This indicates that at least part of these sites were formed during this time period.

5.5. *Summary of Results.*

The three sites can be classified as low density open artefact scatters and typical of those found in the hinterland of the St Georges Basin/Tomerong region (Lance & Fuller 1988; Koettig 1989; Navin 1990; Silcox 1990, 1991). They all occur within the floodzone area, on the creek or ridges just above this (Map 3). They consist predominantly of simple flakes with little retouch to indicate subsequent use. Elements of a blade technology, indicating a late Holocene date, were also found at two of the sites. All of the sites were found on exposed roads and have probably all been disturbed from their original positions.

6. DISCUSSION.

6.1. *Significance Assessment.*

A site's significance is determined by its perceived scientific, educational and cultural value. Scientific value is determined by a number of criteria including its research potential, as indicated by its structure and contents, its rarity within a region, or its representativeness. Cultural value, when dealing with prehistoric sites, is the importance placed on a site or area by Aboriginal people. Educational value refers to the potential for a site to inform the public about past Aboriginal lifeways.

6.2. *Nebraska Estate.*

The sites recorded during the survey of Nebraska Estate are probably representative of open camp sites in the general region. None of their elements are unique and all appear to have undergone disturbance due to road construction. Taken by themselves, their scientific significance is only moderate and they have little educational value.

Their significance to Aboriginal people was assessed by Rhonda Connelly during the survey, and according to her this is low.

6.3. *Impacts on sites.*

The proposed re-zoning will allow increased housing development in the Nebraska Estate. It is presumed that with such development will come further upgrading of the existing roads and thus destruction of the archaeological sites. In addition, housing construction will lead to greatly increased disturbance of the Lots and this is also likely to impact on as yet unknown archaeological sites. On the basis of the present distribution, this is likely to occur on those Lots which fall within the floodzone, either side of the creek.

6.4. *Legislative Protection.*

Aboriginal sites in New South Wales are protected by the National Parks and Wildlife Act (1974) and the Aboriginal and Torres Strait Islander Heritage Act (1986). Under the former it is illegal to alter, damage or destroy an Aboriginal relic or place without first obtaining the written consent of the Director of the National Parks & Wildlife Service (NSW). The latter is a Federal act which can be implemented at the request of Aboriginal people if the State legislation fails to protect Aboriginal heritage.

7. RECOMMENDATIONS.

1. No further archaeological investigation is necessary on the subject land at this time. However, activities such as deforestation which are likely to impact on archaeologically sensitive areas within the floodzone [1(G)] should be minimised. Any major development of this zone should not proceed without further archaeological investigation including subsurface testing.
2. Written permission should be sought from the Jerringa Aboriginal Land Council if any development proceeds. Verbal agreement to the destruction of the recorded sites was given by [REDACTED]
3. Written permission should be sought from the Director of the National Parks & Wildlife Service (NSW) prior to the destruction of the recorded sites.

REFERENCES.

Bowdler, S. 1976. Hook line and dilly bag: an interpretation of an Australian coastal shell midden. *Mankind* 10:248-58.

Koettig, M. 1989. Report on the survey for Aboriginal sites along the proposed Tomerong by-pass. Unpublished report to the Roads and Traffic Authority.

Lampert, R. 1971. *Burrill Lake and Currarong*. Dept of Prehistory, Australian National University, Canberra. *Terra Australia* 1.

Lance, A. 1986. An archaeological investigation of sewerage works at St Georges Basin, New South Wales. Unpublished report to the Shoalhaven City Council.

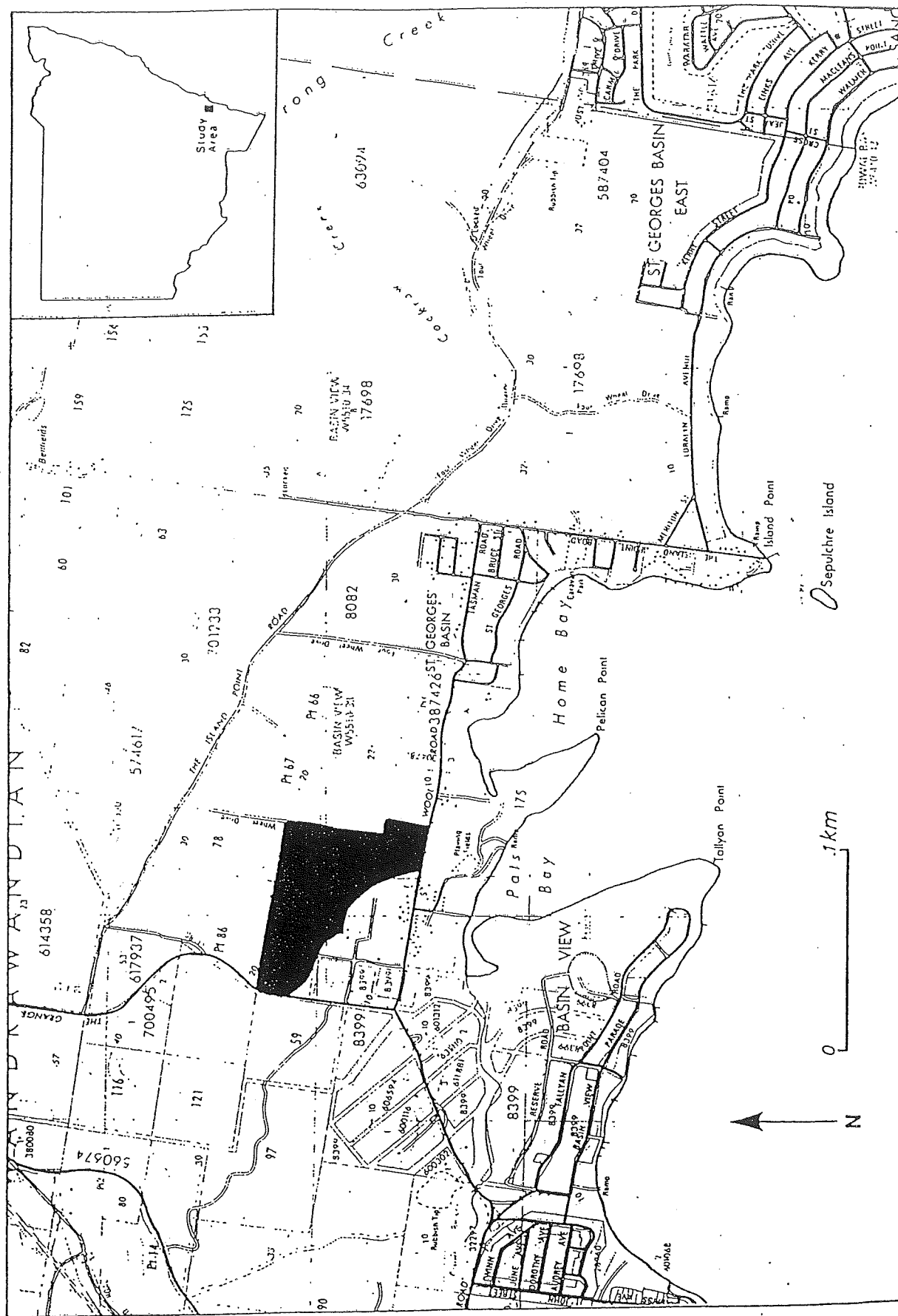
Lance, A., & N. Fuller. 1988. Archaeological survey of ocean outfall pipeline routes, Jervis Bay, New South Wales. Unpublished report to the Shoalhaven City Council.

Navin, K. 1990. An archaeological assessment of the alternative by-pass routes for the Princes Highway at Tomerong, NSW. Unpublished report for the Roads and Traffic Authority.

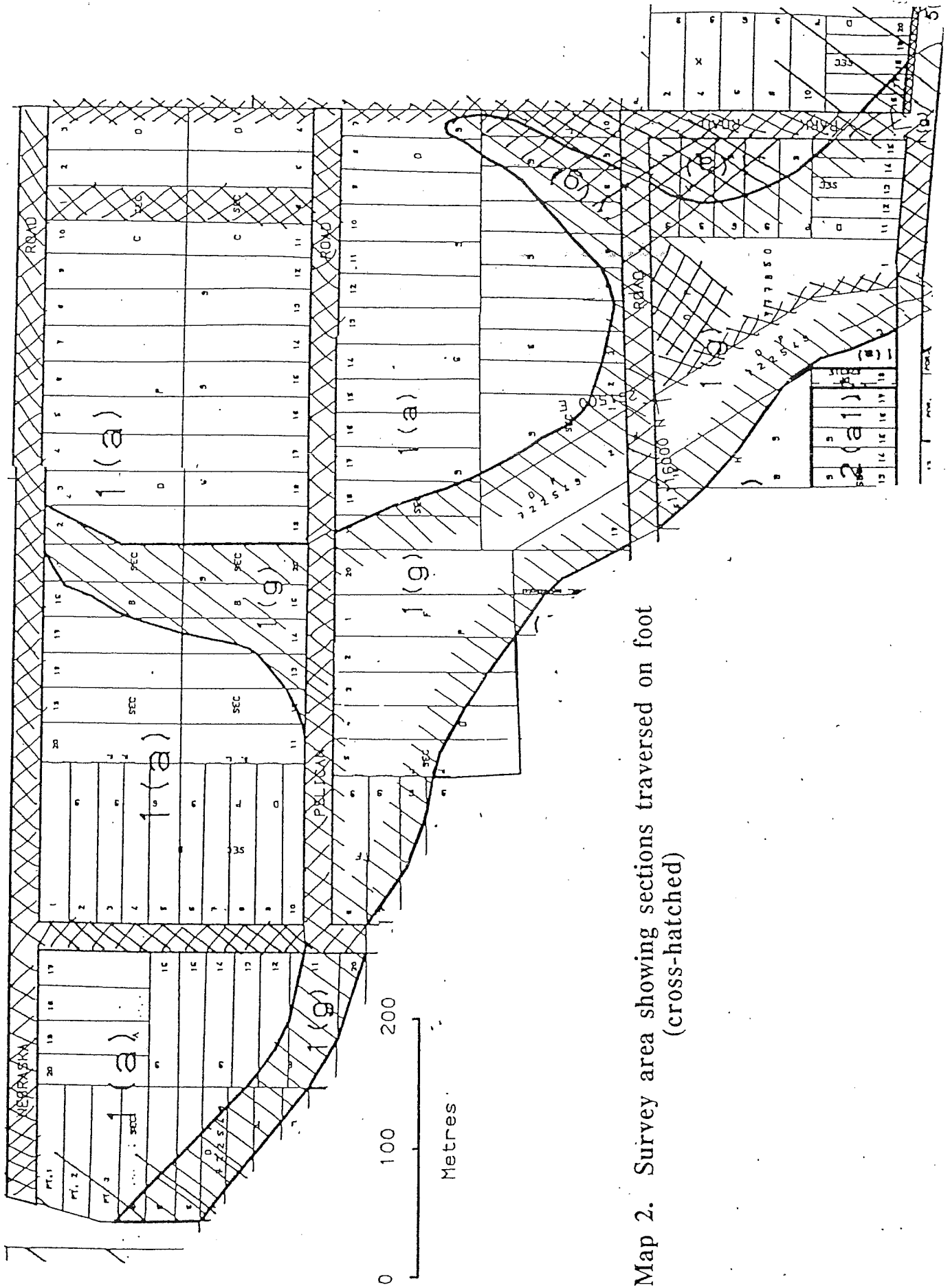
Silcox, R. 1990. Test excavations on the Tomerong by-pass, near Nowra, New South Wales. Unpublished report to the Roads and Traffic Authority (NSW) for Archaeological Services.

Silcox, R. 1991. Archaeological assessment of proposed Island Point Road/Wool Road link route, St Georges Basin, NSW. Unpublished report to the Shoalhaven City Council.

Silcox, R. 1992. Archaeological survey of Wrights Beach sewerage system, St Georges Basin, NSW. Unpublished report to the Department of Public Works.

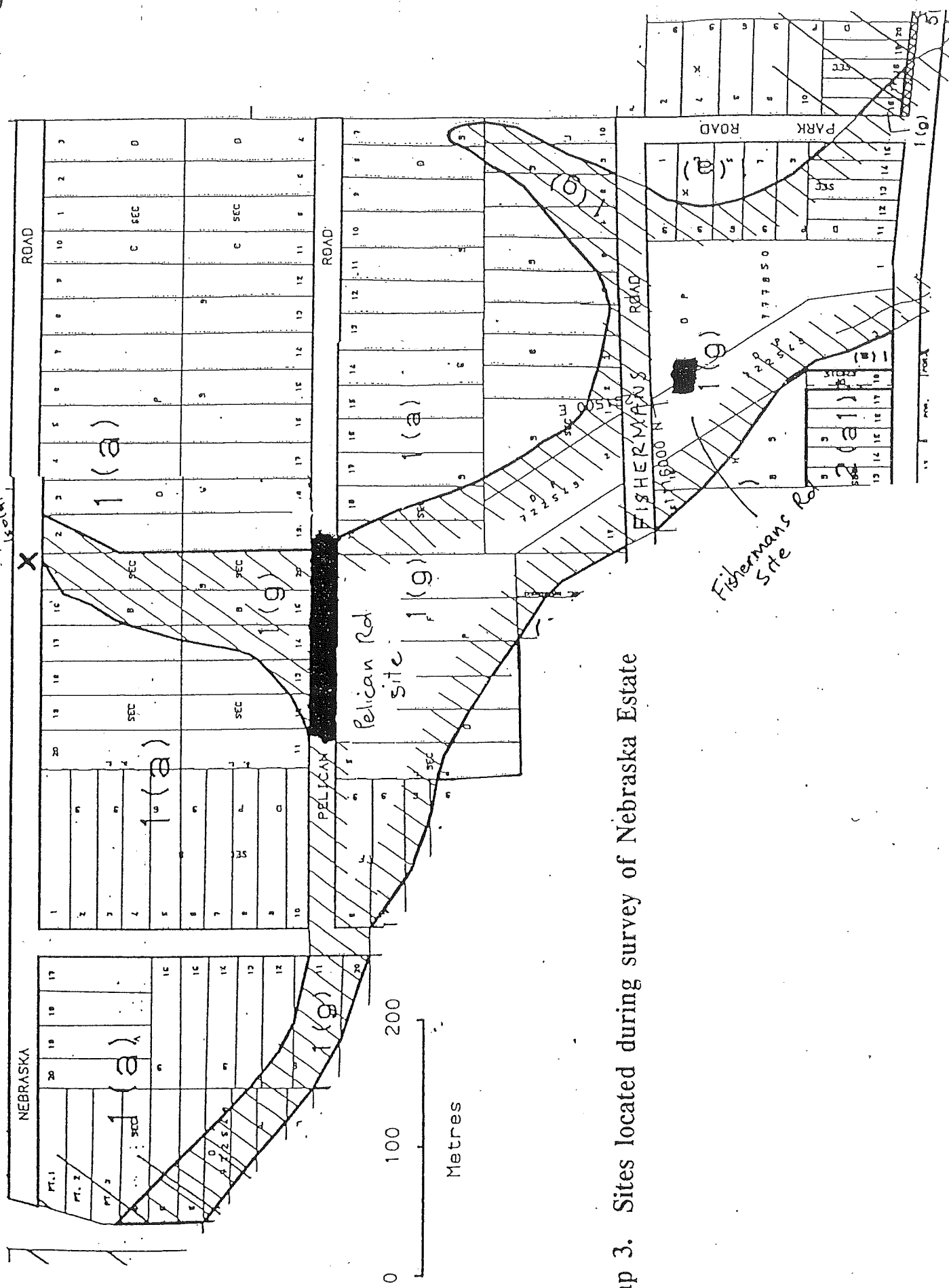


Map 1. Location Map of Nebraska Estate



Map 2. Survey area showing sections traversed on foot
(cross-hatched)

Nebraska Road
isolated area



Map 3. Sites located during survey of Nebraska Estate

SITE	STONE TYPE	LENGTH (mm)	WIDTH (mm)	THICKNESS (mm)	RETOUCH	ARTEFACT TYPE
Pelican Road	Quartzite	20	20	14		Core
	Quartzite	47	39	15		Flake
	Silcrete	42	27	26		Blade Core
	Silcrete	64	27	24		Flaked Pebble
	Quartzite	35	33	25		Core
	Silcrete	10	10	4		Flake (broken)
	Silcrete	13	13	7		Blade (broken)
	Volcanic	48	38	30		Hammerstone (broken)
	Quartz	9	7	2		Flake (broken)
	Quartz	11	10	3		Flake
	Quartzite	18	17	14		Flake (broken)
	Quartz	11	10	5		Flake piece
	Quartzite	22	18	8		Flake piece
	Quartzite	27	17	8		Flake
	Silcrete	47	28	9	Yes	Flake
	Silcrete	29	25	11	Yes	Flake Tool
	Silcrete	19	18	6		Flake
	Silcrete	36	27	8		Flake
	Silcrete	18	15	4		Flake piece
	Silcrete	39	16	9	Yes	Blade
	Quartzite	44	39	17		Flake
	Quartzite	44	28	16		Flake
	Sandstone	65	58	26	Yes	Grindstone
Nebraska Road	Chert	11	9	4	Yes	Flake
Fisherman's Road	Silcrete	21	18	3		Flake
	Silcrete	30	21	8		Flake
	Silcrete	20	7	3	Yes	Backed Blade
	Quartzite	22	12	7		Flake

Table 1. Summary of recorded artefacts.



JERRINJA LOCAL ABORIGINAL LAND COUNCIL

P.O. BOX 8
ORIENT POINT, N.S.W. 2540
Phone: (044) 47 3163

TO WHOM THIS MAY CONCERN

As a representative of Jerringha L.A.L.C. I participated in the survey off Grange Road with Brenden Marshall & Cathie Webb.

Fieldwork was undertaken in Janurry 1993 on the 18th.

The route of the proposed project was surveyed on foot by team members walking 10m apart, the line of survey was easily maintained as most of the route follows access tracks.

As we proceeded up tracks we located and recored stone artefacts.

The areas off the tracks are surrounded by native trees and a thick understorey of shubs, ground visibility was very poor.

I saw no scarred or carved trees, or shell middens, at the end of the survey I was satisfied that no Aborininal sites would be disturbed by any construction along proposed route but I will wait for the Archaeological survey from Brenden and Cathie.

Yours Faithfully,

SECRETARY.. Jerringha L.A.L.C.

