



THE DAIRY STAGES 2 - 5, DOLPHIN POINT: ABORIGINAL HERITAGE MANAGEMENT PLAN WORKING DRAFT





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1. INTRODUCTION

This Aboriginal Heritage Management Plan (the plan) applies to the following area:

• Stages 2-5 of "The Dairy" residential development at Dolphin Point, as marked on Figure 1.

This plan has been prepared to address the requirements of the *National Parks and Wildlife Act 1974* (NP&W Act) and the *Environmental Planning and Assessment Act 1979* (EP&A Act), specifically the Statement of Commitments and Part 3A Major Project approval for the development of Stages 2-5 of "The Dairy".

Stages 2-5 of "The Dairy" at Dolphin Point is presently owned by the proponent Elderslie Property Investments¹ ("Elderslie").

This plan:

- Defines responsibilities of personnel;
- Defines procedures in relation to Aboriginal heritage;
- Establishes key performance indicators;
- Establishes policies and actions for compliance with the NP&W Act and EP&A Act and Part 3A Approval;
- Facilitates a process of communication and decision-making; and
- Assists Elderslie to meet legal and ethical obligations in relation to Aboriginal heritage.

Implementation of this plan is the responsibility of the Elderslie Project Manager.

¹ All references to Elderslie Property Investments are taken to refer to any future owner/proponent should ownership of the land be transferred subsequent to the date of this plan.

2. ABORIGINAL HERITAGE EVIDENCE

Four broad Aboriginal site areas (Dolphin Point 1, 2, 3 and 4), comprising 91 individual identified loci of stone artefact and shell midden evidence, have been reported within Stage 1 and Stages 2-5 of The Dairy. These sites are described below (including evidence from the adjacent Stage 1) following the results of heritage surveys and excavations by Feary (1991), Stone (1995), Navin Officer (2003a, 2003b, 2003c, 2003d) and Kuskie (2004, 2005a, 2005b). The site locations are marked on Figure 2.

Site Dolphin Point 1 (DECC #58-1-640):

Site Dolphin Point 1 is an artefact scatter that was initially defined by Navin Officer (2003a) as extending across much of Stage 2 of The Dairy. It now comprises (Figure 2):

- □ Four loci of evidence recorded by Navin Officer (2003a) (Locus B including Isolated Find 1 reported by Stone in 1995, and Loci C, D and E);
- One locus of additional evidence identified by South East Archaeology in February 2004 (Locus K); and
- Ten loci of evidence associated with test excavation areas 4A1, 6A, 9A, 4A2, 4B1, 5A, 5B, 3A1, 3B and 4A3 (Kuskie 2005a).

The site encompasses the very gentle drainage depression, gentle drainage depression, gentle simple slope, gentle spur crest and gentle lower slope environmental contexts and extends across Stages 2 and 3 of The Dairy. A gentle drainage depression in the east corner of Stage 2, in which no heritage evidence has been identified, separates the site from 'Dolphin Point 3'.

Site Dolphin Point 2 (DECC #58-1-636):

Site Dolphin Point 2 is an artefact scatter and shell midden that was initially defined by Navin Officer (2003a) as extending across Stage 1 adjacent to the present application area, but now includes Stage 4 and part of Stage 3 of the application area. It comprises (Figure 2):

- □ 'Stone Site 2', originally recorded by Stone (1995) with additional evidence recorded by Kuskie (2004);
- Four loci of evidence initially recorded by Navin Officer (2003a) (Locus A subsequently subject to surface collection along the exposed road surfaces by Navin Officer 2003b and including shell midden deposit; Locus H expanding an original recording by Feary in 1991 as 'Site One'; and Loci I and J);
- One locus of additional evidence identified by South East Archaeology in February 2004 (Locus L);
- 29 spatially separate test units within Stage 1 of The Dairy that were excavated by Navin Officer (2003b) which contain artefacts with one unit (#29) also containing shell midden deposit;
- □ Spoil mounds created by the initial Stage 1 development works adjacent to and effectively representing an extension of Locus A that were subject to some collection and sieving by Navin Officer (2003b);
- □ Two broad area archaeological excavations, each measuring 40 x 2 metres (Trench A and Trench B) conducted by South East Archaeology in 2004 as part of the Stage 1 salvage (Kuskie 2005b);

- □ Surface scrapes conducted within nine separate areas in Stage 1 (Scrapes A-I) by South East Archaeology in 2004 as part of the Stage 1 archaeological salvage, with six localised hand excavations in scrapes B and H (Kuskie 2005b); and
- □ Two loci of evidence associated with test excavation areas 3A2 and 1A (Kuskie 2005a).

The site encompasses the gentle drainage depression, gentle simple slope, gentle spur crest, very gentle ridge crest and moderate lower slope environmental contexts.

Site Dolphin Point 3 (DECC #58-1-947):

Site Dolphin Point 3 is an artefact scatter that was initially defined by Navin Officer (2003a) as extending across the eastern corner of Stage 2 of The Dairy. It comprises (Figure 2):

□ One locus of evidence recorded by Navin Officer (2003a) (Locus F).

The site encompasses the gentle simple slope and gentle lower slope environmental contexts.

Site Dolphin Point 4 (DECC #58-1-933):

Site Dolphin Point 4 is an artefact scatter/shell midden that was initially defined by Navin Officer (2003a) as extending across the eastern margin of Stage 5 of The Dairy. It now also extends across the basin/flat of Stage 5 and comprises (Figure 2):

- □ One locus of evidence recorded by Navin Officer (2003a) (Locus G);
- □ Two loci of additional evidence identified by South East Archaeology in February 2004 (Loci M and N);
- □ Two loci of evidence identified by Feary (1991) ('Site 3' and 'Site 4');
- □ One test unit (#30) excavated by Navin Officer (2003b); and
- □ Two loci of evidence associated with test excavation areas 2A and 8A (Kuskie 2005a).

The site encompasses the level/very gentle flat, level/very gentle wetland and gentle lower slope environmental contexts and extends across Stage 5 of The Dairy.

Occupation of Stages 2-5 of The Dairy is inferred to have involved transitory movement and hunting/gathering without camping, undertaken in multiple episodes each of short duration. The overall spatial distribution and nature of evidence in Stages 2-5 is a low density distribution of artefacts consistent with background discard, interspersed by a low number of discrete activity areas in which more focused activity has occurred, predominantly in relation to the production of backed artefacts but also the consumption of shellfish.

The significance of the heritage evidence has been assessed against a range criteria commonly used in Aboriginal heritage management. Sites Dolphin Point 1, 2, 3 and 4 do not surpass the threshold for significance in relation to aesthetic, educational or historic criteria. It is important to observe that all heritage evidence tends to have some contemporary significance to Aboriginal people, because it represents an important tangible link to their past and to the landscape, and representatives of the Ulladulla Aboriginal community have expressed an interest in the evidence. Sites Dolphin Point 1, 2 and 4 are assessed as being of moderate scientific significance within a local context and low scientific significance within a regional context. Site Dolphin Point 3 is assessed as being of low scientific significance within both local and regional contexts.

3. STATUTORY OBLIGATIONS

The *National Parks and Wildlife Act 1974* (as amended) provides the primary basis for the legal protection and management of Aboriginal heritage sites within New South Wales. Implementation of the Aboriginal heritage provisions of this Act is the responsibility of the Climate Change and Environment Protection Group and Cultural Heritage Division of the Department of Environment and Climate Change (NSW) (DECC).

With the exception of some artefacts in collections, the Act generally defines all Aboriginal objects to be the property of the Crown. The Act then provides various controls for the protection, management and destruction of these objects. An 'Aboriginal object' is defined as

'any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains' [Section 5(1)].

Under the terms of the National Parks and Wildlife Act 1974, it is an offence for a person to:

- □ Knowingly destroy, damage or deface an Aboriginal object or place, or knowingly cause or permit the destruction, defacement or damage to an Aboriginal object or place, without first obtaining the consent of the Director-General of DECC;
- Disturb or excavate any land, or cause any land to be disturbed or excavated, for the purpose of discovering an object, without first obtaining the consent of the Director-General of DECC; and
- □ Collect on any land an object that is the property of the Crown, other than an object under the control of the Australian Museum, without obtaining appropriate authorisation from the Director-General of DECC.

Under the Part 3A Major Project amendments to the *Environmental Planning and Assessment Act 1979*, subsequent to Part 3A approval being granted, Section 90 Consent under the NP&W Act may not be required to impact Aboriginal objects. *In lieu* however, a Part 3A application involving a Statement of Commitments outlining proposed heritage management and mitigation measures must be approved.

This plan has been prepared in relation to a Part 3A application and must be implemented in accordance with the Part 3A approval for The Dairy Stages 2-5 project, *in lieu* of obtaining Section 90 Consent.

While the primary legislation offering protection to Aboriginal heritage in NSW is enacted by the state, several Acts administered by the Commonwealth may also be relevant. The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* provides for the protection of areas and objects which are of significance to Aboriginal people in accordance with Aboriginal tradition.

The amended *Environment Protection and Biodiversity Conservation Act 1999* and the *Australian Heritage Council Act 2003* include a National Heritage List of places of national heritage significance, a Commonwealth Heritage List of heritage places owned or managed by the Commonwealth and continued management of the Register of the National Estate. In addition to these Commonwealth acts, local planning instruments also contain provisions relating to indigenous heritage and development. At present, there are no identified Aboriginal sites within The Dairy Stages 2-5 listed on these registers or plans.

4. MANAGEMENT POLICIES AND ACTIONS

This section outlines the policies for management of the Aboriginal heritage evidence within The Dairy Stages 2-5, along with the actions necessary to implement these policies.

4.1 Roles and Responsibilities

The personnel responsible for implementation of this plan to ensure compliance with regulatory requirements and safe and effective management of Aboriginal heritage within The Dairy Stages 2-5 are specified here.

ELDERSLIE PROPERTY INVESTMENTS' PROJECT MANAGER:

The Elderslie Property Investments' Project Manager is responsible for:

- Developing, implementing and maintaining this plan;
- Reviewing and updating this plan;
- Educating relevant staff and contractors to ensure all are aware of their obligations under this plan;
- Coordinating all activities and investigations required under this plan;
- Coordinating all consultation with the Ulladulla LALC required under this plan;
- Being the first point of contact at Elderslie in relation to Aboriginal heritage issues.

ABORIGINAL COMMUNITY:

The Ulladulla Local Aboriginal Land Council (LALC) is responsible for:

- Providing suitably qualified and/or experienced representatives to attend meetings, site inspections and field investigations with 10 working days notice;
- Providing written comment to Elderslie on the draft of any heritage assessment or heritage report or in relation to any other heritage issue where requested by Elderslie, within 15 working days of a verbal or written request by Elderslie;
- Complying with all Occupational Health and Safety, Equal Opportunity and Part 3A Approval and Plan of Management requirements relating to The Dairy Stages 2-5;
- Undertaking other duties as reasonably requested by Elderslie in relation to Aboriginal heritage.

OTHER PERSONNEL:

Other staff and contractors of Elderslie are responsible for:

- Being aware of their obligations under this plan;
- Being aware of the existence of Aboriginal heritage evidence in their work area and specific actions required under this plan to protect or manage that evidence;
- Immediately informing their supervisor should any new Aboriginal heritage evidence be identified;
- Immediately ceasing work in that area and informing their supervisor should any impact occur to Aboriginal heritage evidence that is not consistent with this plan.

4.2 Aboriginal Community Involvement

POLICY:

Elderslie acknowledges that Aboriginal heritage is of primary interest to the Aboriginal community and that Aboriginal people have the right to be consulted and involved in all aspects of decision-making in relation to their heritage.

Elderslie recognises that the Aboriginal community has a paramount role in identifying cultural significance and cultural values.

Elderslie recognises that the Ulladulla LALC is the democratically elected and representative body responsible under the *Aboriginal Land Rights Act 1983* for providing advice and expertise on Aboriginal matters and will function as the central point of contact with the Aboriginal community in relation to heritage issues.

ACTIONS:

- Elderslie will provide the LALC with details of the proposed methodology of any forthcoming archaeological survey or excavation and allow the LALC a minimum of 15 working days to provide comment, including identification of issues or areas of cultural significance that might affect, inform or allow refinement of the methodology. Elderslie will document and take into account all comment provided by the LALC and identify how these comments were considered in finalising the methodology;
- Elderslie will engage representatives of the LALC to participate in any archaeological survey, excavation or monitoring required under this plan. Elderslie will provide the LALC with a minimum of 10 working days notice of the date of commencement of the field investigation, unless a shorter period is agreed to by the LALC. Elderslie will provide safe access to the investigation area and induct LALC representatives to an appropriate level for Occupational Health and Safety procedures;
- The LALC will provide suitably qualified and/or experienced representatives to participate in any archaeological survey, excavation or monitoring required under this plan. The LALC representatives will comply with all requirements of Elderslie, including Occupational Health and Safety requirements, at all times when on The Dairy Stages 2-5;
- Elderslie will provide the LALC with draft copies of all heritage reports produced under this plan and allow the LALC 15 working days to provide written comment. Elderslie will document and take into account all comment provided by the LALC and demonstrate how these comments have been taken into consideration;
- The LALC will provide written comment to Elderslie on the draft of any heritage report or in relation to any other heritage issue where requested by Elderslie, within 15 working days of a verbal or written request by Elderslie;
- Elderslie will provide the LALC with final copies of all heritage reports produced under this plan, within 25 working days of the completion of the report;
- Elderslie will arrange and host a meeting on an annual basis with the nominated executives of the LALCs to discuss the operation and effectiveness of this plan, any heritage reports or work conducted under this plan, and any other heritage issues that are deemed relevant by either Elderslie or the LALC;
- Elderslie will assist the LALC to collect and curate any items that are salvaged under this plan;

- Elderslie will immediately notify the relevant LALC should human skeletal material be identified within The Dairy Stages 2-5;
- Elderslie will permit LALC representatives access to inspect recorded Aboriginal heritage evidence on Elderslie controlled land subject to the receipt of 3 working days written notice, and safety and operational considerations at that time.

- The Elderslie Project Manager will coordinate all consultation with the Aboriginal community required under this plan;
- The Ulladulla LALC Executive will coordinate the involvement of the LALC with Elderslie for all heritage issues within The Dairy Stages 2-5;
- Other Personnel will provide support to Elderslie where requested to implement these actions.

4.3 Aboriginal Site Database

POLICY:

Elderslie will maintain a database providing details of all identified Aboriginal heritage evidence within The Dairy Stages 2-5 so that this plan can be effectively implemented.

Elderslie will inform the Department of Environment and Climate Change in the manner prescribed under the NP&W Act of any previously unrecorded heritage evidence that is identified within The Dairy Stages 2-5.

ACTIONS:

- Elderslie will maintain an Aboriginal Site Database in both tabular and graphical form that presents the locations and names and other relevant details of all identified Aboriginal heritage evidence (site loci) within The Dairy Stages 2-5;
- Elderslie will update the database within 3 working days after becoming aware or being informed of the identification of any previously unrecorded Aboriginal heritage evidence (site loci) within The Dairy Stages 2-5;
- Elderslie will make the Database available to all relevant personnel, contractors and LALC representatives where necessary to ensure that this plan can be effectively implemented;
- Elderslie will not make the Database publically available without obtaining the prior written consent of the LALC.

- The Elderslie Project Manager will create, maintain and update the Database;
- The Elderslie Project Manager will make the Database available where necessary;
- The Elderslie Project Manager will liaise with the LALC should it be necessary to make any information in the Database available to the public;
- Other Personnel will provide support to Elderslie where requested to implement these actions.

4.4 Management of Aboriginal Sites

POLICY:

Elderslie will implement procedures to manage a range of specific types of Aboriginal heritage evidence should it be identified within The Dairy Stages 2-5, as specified below and consistent with the Part 3A approval and relevant legislation.

Human skeletal remains are excluded here and dealt with in Section 4.5 and evidence identified during the course of heritage mitigation works is dealt with in Section 4.6.

ACTIONS:

- Upon identification of any previously unrecorded Aboriginal heritage evidence² (other than skeletal remains refer to Section 4.5, or during the course of heritage mitigation works refer to Section 4.6), all work that may cause impacts to that evidence shall immediately cease and the Elderslie Project Manager be notified. This excludes the identification of any previously unrecorded stone artefacts within the identified site loci or broad site areas (as marked on Figure 2) during the course of development works within Stages 2-5, for which unmitigated impact will be permitted to occur;
- Temporary fencing and/or marking of the site location and signage may be required to ensure that inadvertent impacts do not occur;
- Relevant personnel may need to be notified to ensure that inadvertent impacts do not occur;
- The Aboriginal heritage evidence will be managed in accordance with the specific procedures set out below for each site type;
- The LALC will be notified within 10 working days of the identification of the Aboriginal heritage evidence and the management actions to be implemented in accordance with this plan and Part 3A approval;
- A site record will be lodged with DECC within 15 working days to comply with Section 91 of the NP&W Act;
- Work that may impact upon the Aboriginal heritage evidence may only recommence with the approval of the Elderslie Project Manager and after actions set out in this plan and Part 3A approval have been implemented;
- Stone artefact evidence is predicted to occur in a generally low density across The Dairy Stages 2-5. Should evidence of stone artefacts be identified within the impact area (other than within the already identified broad site areas during the course of development works refer to Figure 2, and other than during the course of heritage mitigation works refer to Section 4.6), the LALC will be notified of its presence and will make a decision on an appropriate management action. The appropriate action will comprise either surface collection of the artefact (with its position and details recorded, and the artefact reburied in a documented location within the conservation area or stored at the LALC office), or unmitigated impact (artefact recorded, left *in situ* and development works allowed to proceed);

² Meaning a site locus, or spatially separate location of visible Aboriginal heritage evidence, that is identified in a location other than one that has already been recorded and marked on Figure 2.

- Additional shell midden evidence is predicted to occur within The Dairy Stages 2-5. Should further evidence of shell midden deposits be identified within the impact area (other than during the course of heritage mitigation works - refer to Section 4.6), the LALC will be notified of its presence and will make a decision on an appropriate management action. The appropriate action will comprise either controlled hand excavation of a sample of the midden (with its position and details recorded, samples submitted for radiometric dating, provision of a report with reference to the DECC *Aboriginal Heritage Standards and Guidelines Kit* 1997, and the evidence reburied in a documented location within the conservation area or stored at the LALC office), or unmitigated impact (midden recorded, left *in situ* and development works allowed to proceed);
- Although not identified to date and not predicted to occur, should evidence of grinding groove, lithic quarry, bora/ceremonial, carved tree, rock shelter with art and/or occupation deposit, scarred tree or stone arrangement sites be identified within the impact area, such evidence will be assessed by a qualified archaeologist and the LALC, its significance will be assessed and mitigation and management strategies formulated by Elderslie, the archaeologist and LALC. Any evidence assessed as being of scientific and/or cultural significance within a regional context will be subject to conservation. In this circumstance, no work shall be undertaken that will cause any impacts to the site and fencing and/or marking of the site location, erection of signage and notification of relevant personnel may be required to ensure that impacts do not occur. Any evidence assessed as being of scientific and/or cultural significance within a local context but not a regional context may be subject to impacts but only with mitigation measures agreed to by Elderslie, the archaeologist and LALC. For grinding groove sites, such mitigation measures may include removal of the rock hosting the grooves and curation of the evidence with the LALC. Any evidence assessed as being of low scientific and/or cultural significance may be impacted without mitigation measures, but only after the evidence has been recorded in detail, with reference to the DECC Aboriginal Heritage Standards and Guidelines Kit (1997);
- Should the Aboriginal heritage evidence comprise a type of evidence different to that addressed in this Section (for example, rare and otherwise unexpected forms of evidence such as Pleistocene age artefacts that relate to Aboriginal occupation prior to 10,000 years ago) it will be recorded by a qualified archaeologist and the LALC, its significance will be assessed and mitigation and management strategies formulated by Elderslie, the archaeologist and LALC. Any evidence assessed as being of scientific and/or cultural significance within a regional context will be subject to conservation. Any evidence assessed as being of scientific and/or cultural significance within a local context but not a regional context may be subject to impacts but only with mitigation measures agreed to by Elderslie, the independent archaeologist and LALC;
- Although not identified to date and and not predicted to occur, should cultural sites of significance³ be identified within the impact area, an assessment by a qualified archaeologist and/or anthropologist and the Aboriginal stakeholders will occur. The assessment will identify the nature of the evidence, the identity of the informants, and the significance of the site. Elderslie will seek to minimise surface impacts in the location of any such site, to the extent feasible within operational requirements;

³ Cultural sites may be of traditional or historical cultural significance to Aboriginal people but do not necessary host physical remains. This category does not include the contemporary significance or cultural value that may be attributed in the present time to physical evidence such as artefact scatters. Sites of traditional significance may include places related to beliefs that date from the pre-contact period and have persisted until the present time such as mythological sites. Sites of historic significance may include places related to Aboriginal use or knowledge during the post-contact period such as historic camp sites and resource-use areas, and contact sites.

- The Elderslie Project Manager will coordinate all actions required to comply with the management of Aboriginal sites within the impact area;
- Other Personnel will provide support to Elderslie where requested to implement these actions.

4.5 Skeletal Remains

POLICY:

Should any human skeletal remains be identified during work, Elderslie will ensure that actions are implemented to comply with statutory obligations and will consider the special needs of the Aboriginal community should those remains be identified as Aboriginal.

ACTIONS:

- If human skeletal material is identified during work, all work in the area of the material will cease immediately;
- Elderslie will immediately notify the NSW Police, LALC and DECC;
- Elderslie will facilitate, in cooperation with the Police, LALC and DECC, the identification of the skeletal remains by an appropriately qualified person;
- Should the remains be identified as Aboriginal and the Police require no further involvement, Elderslie will manage the remains in accordance with the requirements of DECC in consultation with the LALC and with advice from a heritage expert. Possibly strategies may involve conservation *in situ* through avoidance of works in that location, conservation *in situ* by emplacement of a protective barrier and fill above the evidence, or excavation and reburial elsewhere.

- The Elderslie Project Manager will coordinate all action required, including notification of and consultation with the LALC, Police and DECC;
- Other Personnel will provide support to Elderslie where requested to implement these actions.

4.6 Mitigation Measures

POLICY:

In order to mitigate the impacts of development upon the cultural and scientific values of the identified and potential heritage evidence and to retrieve and conserve samples of evidence from sites Dolphin Point 1, 2, 3 and 4, a program of archaeological salvage will be undertaken within The Dairy Stages 2-5 by archaeologists qualified in Aboriginal heritage from South East Archaeology Pty Ltd and representatives of the Ulladulla LALC (refer to Figure 2). The program will be consistent with and complement the archaeological salvage conducted in the adjacent Stage 1 (Kuskie 2005b) and the testing undertaken to date within Stages 2-5 (Kuskie 2005a). The program of salvage will occur prior to any development impacts occurring.

The objectives of the mitigation program are:

- To examine samples obtained on a broad scale (mechanical surface scrapes) from within the area of proposed development impact in environmental/cultural contexts 4A, 4B, 5A, 5B and 7A, prior to construction, to inspect for and identify if any unexpected or unusual features are present and to permit their salvage (refer to Figure 2);
- To retrieve the existing identified surface evidence within the Stages 2-5 development impact area by surface collection (refer to Figure 2); and
- To retrieve a sample of evidence by broad-area hand excavation from within the area of proposed development impact in environmental/cultural contexts 5A and 7A, to permit a range of research hypotheses to be examined to complement and enhance the programs of testing and salvage conducted to date within Stages 2-5 and the adjacent Stage 1 of The Dairy (refer to Figure 2).

ACTIONS:

Through the excavation and collections and subsequent analysis of the evidence retrieved, the research hypotheses listed below will be addressed to the extent that is possible given the nature of the evidence and present limitations of methodological and theoretical knowledge. This list is not intended to be prescriptive or preclusive:

- What Aboriginal activities occurred on-site?
- What types of Aboriginal occupation occurred within the study area (eg. camping, hunting/gathering, transitory movement, etc.)?
- Were the types of activity and nature of occupation related to environmental factors (eg. landform element, slope, soils, proximity to potable water, proximity to wetlands/estuary)?
- Does spatial patterning of activity areas occur?
- Were the types of activity and nature of occupation related to cultural or behavioural factors (eg. performance of ceremonies)?
- Did the nature and location of occupation vary over time with changing environmental conditions (eg. transformation from sheltered coastal embayment to estuarine water to brackish and freshwater swamps)?
- Did single or multiple episodes of occupation occur?
- Did episodes of occupation occur at different times over the entire time-span of occupation of the region?
- What duration of time did each episode of occupation last?
- Is there potential for older (ie. early Holocene or late Pleistocene) evidence?

- How intensive was occupation of the study area, in both a local and regional context?
- What were the primary subsistence resources used/discarded within the study area and where were they obtained from?
- Did food processing occur on-site?
- Did microblade and microlith production occur on-site?
- Did thermal alteration of silcrete occur on-site?
- Were other stone tools manufactured on-site?
- Was knapping of flakes largely casual and opportunistic, meeting requirements on an 'as needed' basis?
- Was maintenance of stone tools conducted on-site?
- Were wooden implements produced and/or maintained on-site?
- To what extent did bipolar knapping occur and did this vary over time?
- What stone materials were favoured for use and why?
- Where were the stone materials procured?
- How does the evidence and human behaviour represented in the study area compare with the evidence obtained by South East Archaeology (Kuskie 2005a) through testing of Stages 2-5?
- How does the evidence and human behaviour represented in the study area compare with the evidence obtained by South East Archaeology (Kuskie 2005b) through salvage of Stage 1?
- How does the evidence and human behaviour represented in the study area compare with evidence from other locations in the region?
- How does the evidence from the study area relate to the local model of occupation proposed by Kuskie (2005a, 2005b)?
- How does the evidence from the study area relate to regional models of occupation? and
- Reassess the test excavation methodology (Kuskie 2005a) to identify its effectiveness in assessing the nature and distribution of heritage evidence within the contexts investigated.

In order to address the research and management aims, a sampling strategy and methodology will be implemented that involves:

- The program of archaeological salvage outlined below taking place prior to any development impacts being permitted to occur within The Dairy Stages 2-5, with DECC being notified in writing of the commencement date of the salvage prior to any salvage occurring and with 10 days upon completion of the salvage;
- Excavation of a broad-area trench by hand measuring in the order of 40 x 2 metres within the zone of impact in the key environmental/cultural contexts (5A, adjacent to the test excavations on the gentle spur crest in Stage 2, and 7A, close to the test excavations on the very gentle ridge crest in Stage 4). The sample locations are marked on Figure 2. The methodology of the broad-area hand excavation will involve removal of vegetation from the surface by use of a brush-cutter or similar equipment, and excavation of each 40 x 2 metre trench in 0.5 x 0.5 metre square units by shovel and trowel to the depth of the A unit soil/top of B unit soil or visible or predicted cultural deposits. Excavation units will be dug in successive levels ('spits') of 10 centimetres depth in order to investigate integrity. Additional areas up to a maximum total of 20 m² may be excavated adjacent to each of the main trenches to trace out the extent of any activity areas or significant features if necessary. Where significant features such as hearths or middens are encountered, excavation may proceed in smaller spits (eg. by 2-5 centimetres) in order to retrieve the maximum information.

- Data will be recorded for each excavation unit on an 'Excavation Unit Recording Form'. Soil from each level within an excavation unit will be placed into separate buckets, labelled and transported to a sieving station to be separately sieved. Wet sieving will be used. A sieve mesh of 2.5 millimetres (3.13 mm maximum aperture) will be used. After each bucket is sieved, all material (both natural and cultural) remaining in the sieve will be dried and bagged with the provenance label. Each bag of material will subsequently be sorted by a qualified archaeologist to retain all probable and potential cultural items and dispose of the natural items;
- Excavation of mechanical surface scrapes within samples of contexts 4A, 4B, 5A, 5B and 7A within the zone of development impact. The sample locations are marked on Figure 2 and listed below:
 - a) Approximately 105 x 90 metres (9,450 m²) in Site Dolphin Point 1 within Stage 3, sampling environmental/cultural context 4A;
 - b) Approximately 120 x 30 metres (3,600 m²) in Site Dolphin Point 1 within Stage 2, sampling environmental/cultural context 4A;
 - c) Approximately 120 x 30 metres (3,600 m²) in Site Dolphin Point 1 within Stage 2, sampling environmental/cultural context 4A;
 - d) Approximately 90 x 60 metres (5,400 m²) in Site Dolphin Point 1 within Stage 2, sampling environmental/cultural context 4A;
 - e) Approximately 50 x 35 metres (1,750 m²) in Site Dolphin Point 2 within Stage 4, sampling environmental/cultural context 4A;
 - f) Approximately 150 x 50 metres (7,500 m²) in Site Dolphin Point 1 within Stage 2, sampling environmental/cultural context 4B;
 - g) Approximately 120 x 30 metres (3,600 m²) in Site Dolphin Point 1 within Stage 2, sampling environmental/cultural context 4B;
 - h) Approximately 120 x 70 metres (8,400 m²) in Site Dolphin Point 1 within Stage 2, sampling environmental/cultural context 4B;
 - i) Approximately 120 x 40 metres (4,800 m²) in Site Dolphin Point 1 within Stage 2, sampling environmental/cultural context 5A;
 - j) Approximately 180 x 25 metres (4,500 m²) in Site Dolphin Point 1 within Stage 2, sampling environmental/cultural context 5B; and
 - k) Approximately 70 x 40 metres (2,800 m²) in Site Dolphin Point 2 within Stage 4, sampling environmental/cultural context 7A.

A total plan area of approximately 55,400 m^2 or 15% of the Stages 2-5 area will be subject to surface scrapes, within eleven separate sample areas. A D6 dozer or similar machinery will be used to systematically expose the surface in each of the scrape areas. The procedure will involve delineation of the area of each scrape and the use of a dozer to progressively remove thin layers (eg. 2-5 centimetres) of soil. Excavated soil will be placed to the end or the side of each scrape, therefore possibly resulting in the formation of 'wind-rows' and a maximum area of exposed surface less than that noted above. A grid of 5 x 5 metre collection squares will be overlain across each scrape area. After each pass of the dozer, the surface will be inspected on foot and any visible evidence collected for washing, drying, recording and curation, with its location recorded within the 5 x 5 metre collection squares. Any features of potential significance (eg. hearths, heat-treatment pits, middens or dense artefact clusters) will be subject to hand excavation (refer below). Hence, where these features are identified within a scrape, they will not be initially collected or subject to further mechanical excavation, but will be temporarily protected until controlled hand excavation is undertaken. The process will be repeated for each scrape area, with a dozer progressively removing another 2-5 centimetres of soil at each pass, and the exposed surface inspected, continuing until the main cultural horizons have been excavated or the base of the A unit soil is reached;

- Where features of potential significance (eg. hearths, heat-treatment pits, middens or dense artefact clusters) are identified within the surface scrapes, hand excavations will be conducted in order to retrieve the evidence that comprises the feature in a manner consistent with obtaining maximum possible information to address the project research aims. For many features, this will involve excavation within 1 m² units and 0.1 metre spits. For hearths, the location of any hearth stones will be plotted and samples retrieved for radiometric dating. For middens, samples will also be retrieved for radiometric dating. Excavation of hearths and middens may proceed in units that are smaller in area and with shallower spits. Until the completion of the surface scrapes, the requirement for hand excavations within the surface scrapes or the potential number and extent of such excavations cannot be determined;
- In order to retrieve samples of the identified heritage evidence to assist in mitigating the impacts of development on the cultural values of the evidence, the known site loci within the impact area will be subject to systematic surface collection. Each site loci will be photographed and recorded and a grid of 5 x 5 metre squares placed over the locus. Any artefacts visible on the surface will be collected for washing, drying, recording and curation, with artefact locations recorded within the 5 x 5 metre collection squares. A plan will be prepared for each locus subject to collection and the grid coordinates recorded by hand-held GPS. The following site loci will be subject to surface collection (Figure 2):
 - Site Dolphin Point 1 (DECC #58-1-640) Loci B (including Stone's IF1), C, D, E and K;
 - Site Dolphin Point 2 (DECC #58-1-636) Loci 'Stone Site 2' (only the portion within Stage 3), L and J;
 - Site Dolphin Point 3 (DECC #58-1-947) Locus F; and
 - Site Dolphin Point 4 (DECC #58-1-933) Locus G.
- The location of each excavation and collection area will be recorded and a plan will be prepared with this information. Spatial analysis of activity areas and features will occur to the extent possible;
- All lithic items retrieved will be inspected under a low-magnification microscope, which will assist in accurate identification of stone materials, artefact types, usewear, retouch and other attributes. In order to address most research questions a minimal level of information will be recorded for every artefact (eg. provenance, reference number, stone material type and colour, lithic item type, size, weight, nature and quantity of cortex, presence and nature of any use-wear or residues, and attributes of heat treatment). The identification of activity areas through association of lithic items with similar stone material characteristics will occur (cf. Kuskie & Kamminga 2000). In addition, specific attributes may be recorded for cores, including initiation surface (cortex, plain fracture, focused, multiple scar), number of platforms, number of flake detachments and flaking pattern, where relevant to the project research objectives. For whole flakes, initiation surface, initiation type (Hertzian, bending, wedging), termination type (eg. axial, feather, high angle, hinge, outrepasse, retroflexed hinge, step), percussion length, width and thickness, platform width and thickness and overhang removal/faceting may be recorded where relevant. Recording of these details will be subject to time constraints and may only occur for a sample of items within each excavation. Only a sample of lithic fragments, items which may derive from prehistoric human activity but are not positively identified as artefacts, may be recorded (eg. only those items that are identifiable as heat shatter). The lithic recording and analysis will be consistent with that undertaken for the Stages 2-5 test excavations and Stage 1 salvage to enable direct comparison of results (Kuskie 2005a, 2005b);
- Individual items of significance may be photographed and/or illustrated;

- Following recording of artefacts into a computer database, individual implements will be bagged separately in resealable, labelled plastic bags, while the remaining non-implement artefacts for each spit within an excavation unit or collection unit will be bagged either together or separately. Lithic fragments may not be retained, but if so they will be bagged together for each excavation unit spit or collection unit. Provenance information will be recorded on waterproof ink on the plastic bag label strips. Artefact bags will be grouped together for each excavation or collection unit and further provenance information included on metal tags;
- All shell and bone material will be recorded, with identification to genus or species level where possible and counts of minimum numbers undertaken. Shell and bone will be bagged as per lithic items, with similar items from each unit spit or collection unit grouped together;
- A selection of artefacts with visible or potential use-wear/residues may be submitted for further examination to an appropriately qualified expert. This analysis may involve high-powered microscopic inspection, extraction of starch and phytoliths, and chemical or other residue tests. Soil samples will also be taken as part of this process (control samples, test for contaminants);
- In the event that features (eg. middens, fireplaces, hearths or heat-treatment pits) are identified that contain samples suitable for radiocarbon or other methods of direct dating, these samples will be submitted to an accredited laboratory for dating. Soil samples will also be retained. A geoarchaeologist will be retained to provide advice on soil formation and dating issues;
- As a result of feedback gained from the excavations, or in the event of unexpected contingencies, modifications to the proposed methodology may be necessary. Where feasible DECC will be contacted to discuss any proposed changes prior to their implementation;
- A report will be prepared containing an executive summary, description of the cultural, environmental and archaeological context of the locality, details of Aboriginal community participation, details of the methodology used, details of the excavation and collection results, including location plans of the excavation and collection areas, lithic item, bone and shell databases, and tabulations of artefact, shell, bone and stone material data, along with analysis and discussion of the results focused on addressing the research aims, a synthesis of the results, a list of references cited, and a glossary defining technical terms;
- An illustrated non-technical summary report will be prepared incorporating the issues listed above;
- The report will be produced with reference to the DECC *Aboriginal Heritage Standards and Guidelines Kit* (1997) and copies distributed to DECC and the LALC within 25 working days of finalisation of the report;
- All Aboriginal objects retrieved during the mitigation measures will be curated by the Ulladulla LALC, by storage and/or display at the LALC office, subsequent to their analysis and temporary storage at the office of South East Archaeology.

- The Elderslie Project Manager will coordinate all actions required to comply with the Aboriginal heritage mitigation measures required in advance of development impacts;
- All heritage work will be conducted by archaeologists from South East Archaeology Pty Ltd qualified and experienced in Aboriginal heritage in conjunction with the Ulladulla LALC;
- Other Personnel will provide support to Elderslie where requested to implement these actions.

4.7 Conservation Areas

POLICY:

Development impacts will be minimised to any potential Aboriginal heritage resources within one proposed conservation area of approximately 1.6 hectares (Figure 2).

ACTIONS:

- Disturbance of soil deposits below the ground surface will not be permitted to occur in more than 35% of the area of the conservation area. Some impacts may be anticipated to occur in relation to the reticulation of essential services, provision for safe recreational/educational use of the areas and water quality facilities, and/or revegetation;
- The conservation area will be protected by temporary fencing during the construction period to prevent inadvertent impacts from occurring; and
- Relevant staff and contractors will be advised of the nature of the conservation area and the above requirements. A plan showing the conservation area will be provided to any employees/contractors conducting any ground-disturbance works within Stage 5;

RESPONSIBILITY:

• The Elderslie Project Manager will coordinate all action required, including the provision of temporary fencing and advice to relevant personnel.

4.8 Review of Plan

POLICY:

The plan will be regularly verified to establish that it is functioning as designed (ie. policies adhered to and actions implemented) to the standard required.

ACTIONS:

- On an annual basis, Elderslie or an independent expert engaged by Elderslie will review this plan to identify the degree to which the policy objectives are being met, the suitability of the actions in terms of addressing the policy objectives, the quality of performance of the actions, and any additional policies or actions or modifications to existing policies or actions that may be required to enable better functioning of the plan;
- On an annual basis, Elderslie or an independent expert engaged by Elderslie will assess the performance of the plan against key performance indicators, such as the protection of Aboriginal heritage, extent of impacts to Aboriginal heritage, number of construction days lost due to actions under the plan, and the number and nature of any adverse responses or input from relevant government authorities or the Aboriginal community;
- Verification may include, where deemed necessary in response to requests of the LALC, Project Manager or DECC, independent review of any heritage assessment report generated under this plan.

RESPONSIBILITY:

• The Elderslie Project Manager will be responsible for undertaking or engaging experts to review the operation of this plan on an annual basis.

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- Kuskie, P.J. and Kamminga, J. 2000 Salvage of Aboriginal Archaeological Sites in Relation to the F3 Freeway near Lenaghans Drive, Black Hill, New South Wales. Volumes 1-3. Unpublished report to NSW Roads and Traffic Authority (Major Projects, Newcastle).
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- Stone, T. 1995 A Preliminary Archaeological Survey of the Milton-Ulladulla Urban Expansion Area. Unpublished report to Shoalhaven City Council.



Figure 1: Location of The Dairy Stages 2-5 Application Area.

(Tabourie 8927-II-S 1:25,000 AMG topographic map).

Figure 2: Location of The Dairy Stages 2-5 Application Area, Aboriginal Heritage Sites and Proposed Salvage Excavation and Collection Areas.

