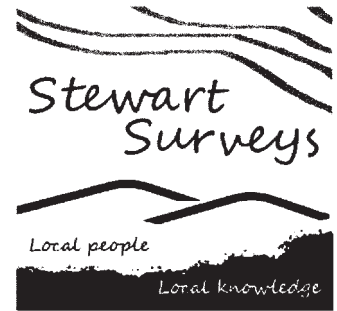


16 September 2015
Our Ref: 4428



The General Manager
Gunnedah Shire Council
PO Box 63
GUNNEDAH NSW 2380

Dear Sir,

GATEWAY APPLICATION-MR C.WARD
PROPOSED REZONING OF LOT 1 IN DP 825588
'GLENBRAE',KELVIN ROAD,KELVIN

Enclosed is a planning proposal which applies to the whole of lot 1 in DP 825588. The proposal outlines an application to amend the Gunnedah local Environment Plan 2012 land zoning map LZN-003 at the site from E3 Environmental Management to RU1Primary Production.

The intended outcome of this gateway application is to enable the lodgement of a development application for a 20,000 bird poultry operation on the site.

This gateway application has been prepared in accordance with the document *A guide to preparing planning proposals*, published by the NSW Department of Planning in July 2009 hereby referred to as the guideline.

We enclose a completed development application form, planning proposal and cheque to cover Council's fees of \$4,500.00. We believe this is a minor amendment to the IEP as it only applies to one lot and the lot is currently utilised for agricultural purposes.

A digital copy of these reports has been emailed to council@infogunnedah.com.au

If you have any queries relating to this application please contact our office.

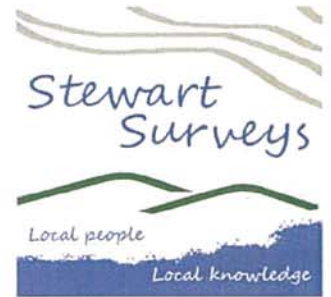
Yours faithfully
STEWART SURVEYS PTY LTD

Kathryn Yigman
landscape Architect & Environmental Consultant

Development Consultants – Surveying, Environmental & Landscape Architecture Services

Stewart Surveys Pty Ltd
ABN 65 002 886 508

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Gateway Application

PLANNING PROPOSAL

Proposed Rezoning of Lot 1 in DP 825588
'Glenbrae', Kelvin Road, Gunnedah

September 2015

Prepared for:
Mr C. Ward

Prepared by:
Kathryn Yigman
Bachelor of Landscape Architecture (UNSW)
Masters of Environmental Management (UNSW)
Registered Landscape Architect (#001493)

Development Consultants - Surveying, Environmental & Landscape Architecture Services

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INTRODUCTION

This Gateway Application has been prepared for the applicant Mr C. Ward by Kathryn Yigman, Stewart Surveys Pty Ltd.

The land to which this application applies is Lot 1 in DP 825588, known as the property 'Glenbrae' located on Kelvin Road approximately 40 kilometres north of Gunnedah. The land is located within the zone E3 Environmental Management under the Gunnedah Local Environment Plan, 2012. The land also comes under the provisions of the Gunnedah Development Control Plan 2012 (referred to as the DCP).

This gateway application has been prepared in accordance with the document *A guide to preparing planning proposals*, published by the NSW Department of Planning in July 2009 hereby referred to as the guideline.

As outlined in the guideline this application is presented in the following format:

- Part 1 – Objective or intended outcome
- Part 2 – Explanation of the provisions
- Part 3 – Justification
- Part 4 – Maps
- Part 5 – Community Consultation

Part 6 – Project Timeline

SUBJECT SITE PARTICULARS

This gateway applies to the following lots:

Lot No.	DP	Zoning
1	825588	E3

Figure 1 illustrates the zoning of the subject site as illustrated in the Gunnedah Local Environment Plan 2012 Map LZN-004.

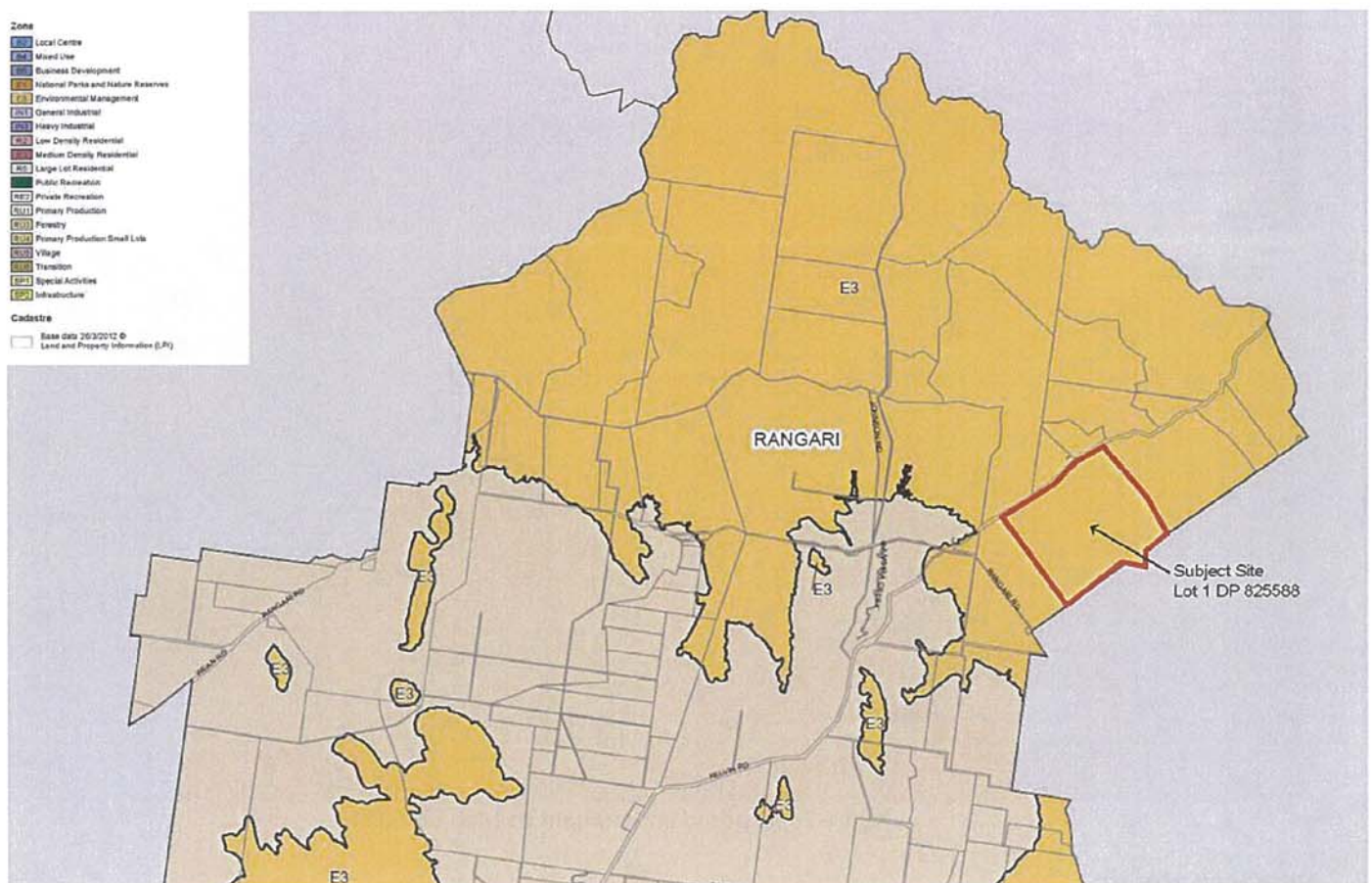


Figure 1 – Zoning Map (extract from LZN-004)

PART ONE – STATEMENT OF INTENDED OUTCOME

The intended outcome of this gateway application is to rezone the subject site to RU1 Primary Production to enable the construction and operation of a 20,000 bird, poultry operation on the site. The proposed development is classified as Intensive Agriculture, which is prohibited in the current zoning.

PART TWO – EXPLANATION OF PROVISIONS

The proposed outcome will be achieved by amending the Gunnedah Local Environment Plan 2012 land zoning map LNZ-004 on Lot 1 in DP 825588 being 'Glenbrae' Kelvin, to RU1 Primary Production in accordance with the proposed land zoning map in figure 2.

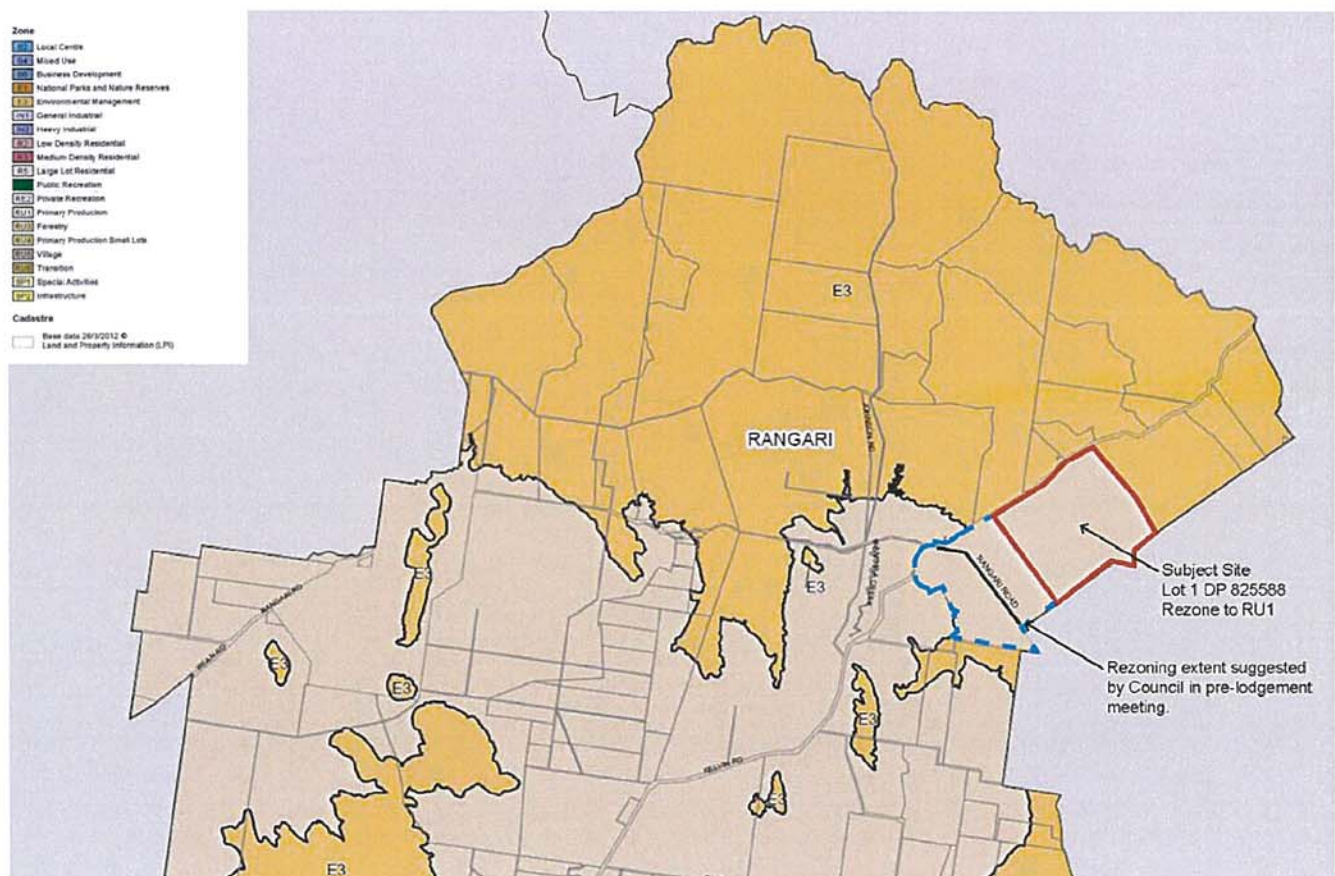


Figure 2. Proposed amendment to Map LZN-004.

PROPOSED ZONING

Lot No.	DP	Zoning
1	825588	RU1

PART THREE - JUSTIFICATION

DESCRIPTION OF PROPOSED DEVELOPMENT

The proponent intends to seek approval for a poultry operation where Chinese Silkie chickens will be bred to 10 weeks of age for export to the Chinese food market for human consumption.

The chicks will be bred off site at a facility in Manilla. They will be collected at 2-3 days of age in batches of up to 2,000 chicks in a utility vehicle and transported to the site. On site they will be housed in a 10.85 by 4.925 metre custom built shed bay. Each shed is 21.7 by 4.925 metres and contains two bays. At 10 weeks of age the batch of chickens will be delivered to Game Farm processors in Galston just north of Sydney for slaughter, processing and dispatch into the market place. There is high demand for this product in the Asian food markets.

Each two weeks a new batch of chicks will be delivered to site and a mature batch will be dispatched off site. The maximum number of birds to be accommodated at the site at any one time is 20,000. Over a period of a year the maximum number of birds to pass through the facility will be 100,000 birds, equating to a maximum of 5 batches of 2,000 per shed bay (10 bays).

Stage 1 is to construct 3 sheds 21.7 by 4.925 metres to house two batches of 2,000 birds in each, to total a maximum of 12,000 birds on the site at any one time.

Stage 2 is to construct an additional 2 sheds of the same design to total a maximum of 20,000 birds on site at any one time.

Sheds have been custom designed by the proponent and engineered by Matrix Engineering Solutions. They are 21.7 metres by 4.925 metres sheds with two self-contained bays in each shed. There are three sheds proposed. These sheds will be located within the project area (shown in figure 4), with fixed power and water supply. The sheds are orientated in a north south direction for optimum solar access and natural ventilation. The three sheds are 5 metres apart.

The sheds will be controlled by a computer system operating the lighting, heating, ventilation, windows and feed distribution etc. There is one stir fan in each bay of the shed. Natural ventilation will be used through the opening of windows on 3 sides of the shed. Sheds are installed with micro-vents, dimmer lighting which comes slowly on and off to replicate the natural light patterns, gas heating system and fixed power and water supply. Figure 3 shows the shed design (prepared by: Matrix Engineering Solutions)

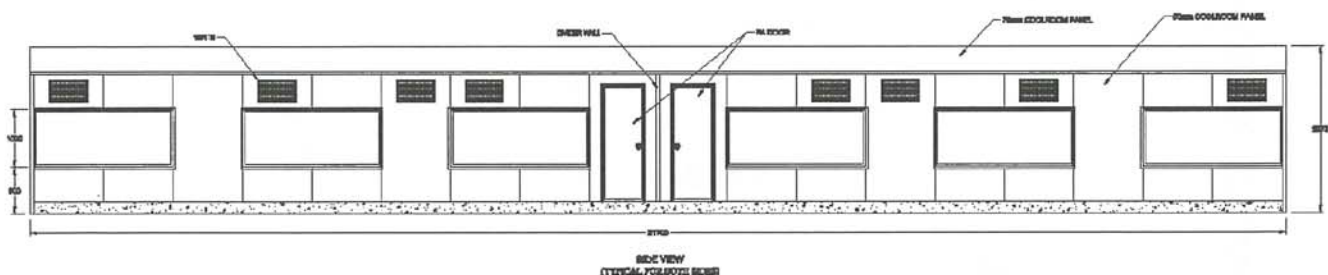


Figure 3: Shed Elevation

Deliveries and storage of materials will be at the property storage shed as shown in figure 4. The shed is located approximately 1 kilometre from Kelvin Road. This complex contains a locked chemicals shed. Access from Kelvin Road to the sheds is via a 3-4 metre wide gravel road. This road is regularly maintained to ensure an even surface and to minimise dust generation. There is ample circulation space around the shed to enable delivery vehicles to turn around.

Access to the chicken paddock will be via the main property access road. The proponent intends to construct a 3 metre wide gravel access road from the main access to the sheds for chicken loading and unloading as shown in figure 4.

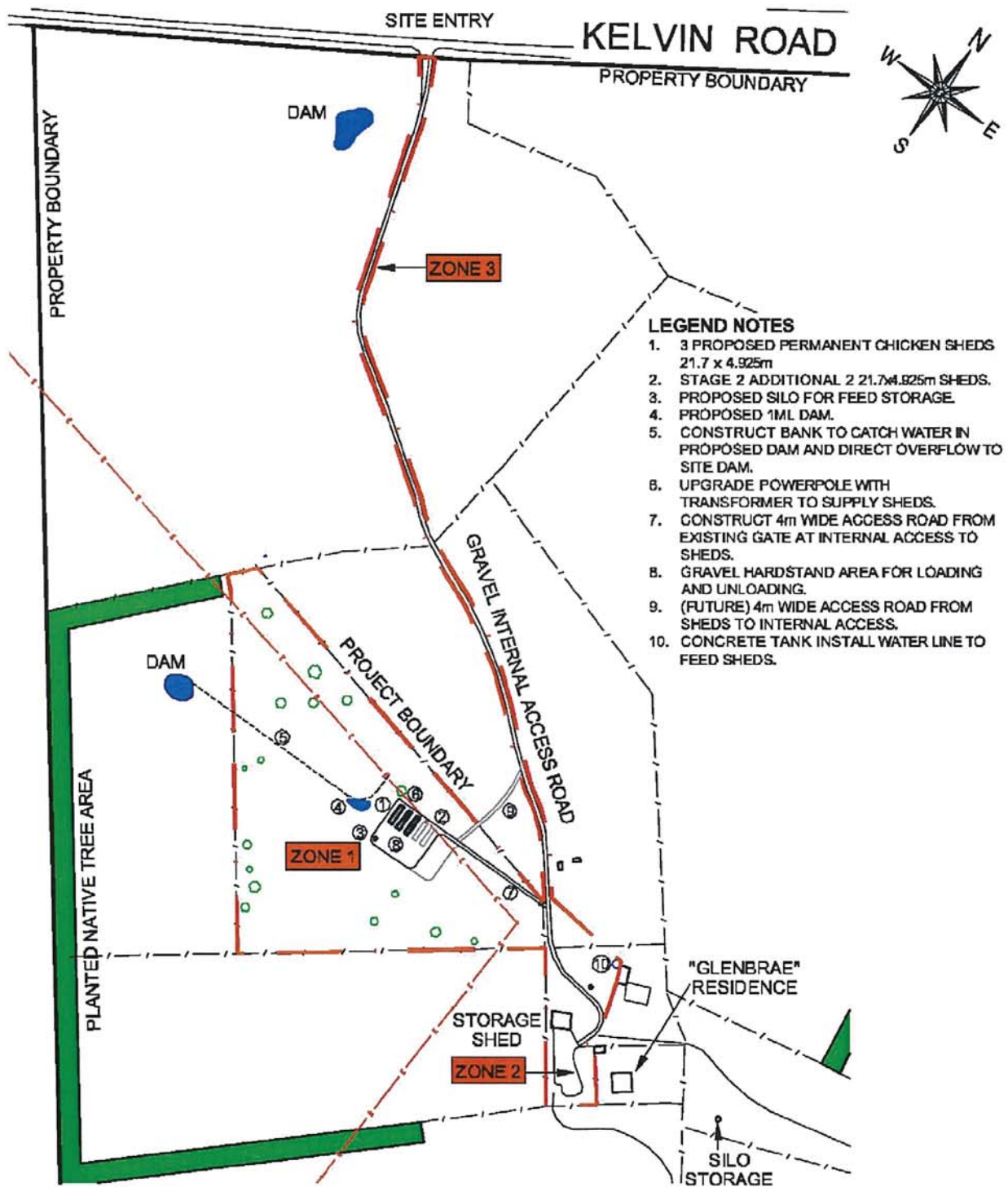


Figure 4: Site Plan – Project Area (refer appendix for scaled plan)

The proponent is intending to gain approval as an RSPCA approved farming scheme. The scheme is noted to have the following attributes:

- establishing animal welfare standards that go beyond regulatory requirements and that are commercially viable;
- enabling differentiation and marketing of products from RSPCA Approved farms; and
- offering consumers who buy chicken a higher welfare alternative.

In order to become accredited there is a standard for meat chickens which outlines a number of housing requirements to ensure good bird welfare.

SITE DESCRIPTION

The subject site is a 435.47 hectare agricultural property, located approximately 40 kilometres from Gunnedah in the Kelvin area. The surrounding properties are low density with agricultural land uses similar to the subject site.

The subject site has been primarily used for cattle and sheep grazing. It is fairly evenly graded with low relief over the site. The site falls into two catchments, the northern section of the site which fronts Kelvin Road falls into the Rangari Creek Catchment and the southern section of the site falls into the Keepit Dam catchment.

Native vegetation on the site would have been woodland vegetation, however over time it is likely that land clearing has occurred for farming purposes and the quality of the vegetation communities on the site has been degraded due to livestock grazing on the property. A number of tree corridors have been planted on the property. These tree corridors contain a mix of native species and provide habitat for native fauna and shade for livestock. To protect establishing trees and maintain these corridors they have been fenced either side.

The site contains two stock water bores, which feed into a tank storage system. This water is utilised for livestock watering. There are a number of dams located on the property, particularly along Dam Gully and Wongo Creek. These dams are also utilised for livestock watering and runoff management.

Generally the site can be described as a typical livestock property, with a weatherboard residence, storage sheds, yards, shearing shed, shearing quarters and fencing improvements. The property shows minor signs of gully erosion, however this environmental degradation appears to have improved over time, with large areas of eroded ground noted on the 1983 topographic mapping, which no longer exist on site. Contour banks are installed to manage overland flow and tree corridors would assist in managing the water table and any potential salinity problems.

Site photographs appended to this report show the character of the subject site.

OBJECTIVES OF THE ZONING

We have met with council's planning department, who advised that the delineation between zone E3 and RU1 was determined by topographic mapping, where land which was greater than 450 metres AHD was zoned environmental

management (E3). The environmental management zone generally contains land which has undulating topography and large areas of remnant vegetation. The objective of this zone is:

- To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.
- To provide for a limited range of development that does not have an adverse effect on those values.

When reviewing the subject site, which has a long history of agricultural use against the environmental management objectives, it does not present qualities such as special ecological, scientific or aesthetic value, which are a feature of this zoning.

The subject site has been extensively cleared for agriculture in the past. It was identified in the 1983 topographic mapping as having large areas of eroded ground. Much of this eroded ground has improved with the installation of contour banks and tree planting to manage runoff. The land is fairly evenly graded with low relief over the site.

The appended aerial photography illustrates the site's character and the character of the surrounding area.

Objectives of RU1 Zone:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To provide for a range of ecologically sustainable agricultural and rural land uses and development on broad acre rural lands.
- To protect significant agricultural resources (soil, water and vegetation) in recognition of their value to Gunnedah's longer term economic sustainability.
- To conserve and enhance the quality of valuable environmental assets, including waterways, riparian land, wetlands and other surface and groundwater resources, remnant native vegetation and fauna movement corridors as part of all new development and land use.

The proposed poultry operation meets these objectives, without fragmenting resource land and presenting conflicts with the nearby E3 zoned land. We believe that the objectives of RU1 primary production better fit the site than the objectives of zone E3.

SECTION A – NEED FOR PLANNING PROPOSAL

Section A of the Guideline outlines the need for the planning proposal criteria.

This planning proposal does not form part of any strategic report or study. It is believed that this proposal is the best means for achieving the intended outcome of intensive industry (poultry operation) on the subject site. The planning proposal is the legal method of amending the Gunnedah Local Environment Plan 2012 to enable a poultry development on the subject site, which is currently utilised for agricultural purposes.

SECTION B – RELATIONSHIP TO STRATEGIC PLANNING FRAMEWORK

Section B of the guideline requires a review of the proposal to any regional or sub-regional strategies. Gunnedah Shire Council is subject to the regional strategy; *New England – North West Region Action Plan (2012)*. One of the key directions in this action plan is to support sustainable economic growth, with priority actions to achieving this including:

- Foster growth sectors such as value-adding industries, agriculture, agribusiness and food processing, aviation and advanced technologies

- Support primary production in the region and build on competitive advantage.
- Promote the region to attract new residents and businesses.
- Continue to build a skilled local workforce.
- Provide support to primary industry to improve water efficiency ahead of the Murray Darling Basin Plan Implementation.

Under the priority action to support primary industry in the region and build on competitive advantage the commitment includes providing technical advice to the Central North Poultry Innovation group to develop a regional strategy in 2013 for increased chicken meat production. Gunnedah Shire Council is listed on their website as an associate member/supporter of this group. The Central North Poultry Innovation group describes itself as a cluster of innovative, community minded and business focused farmers with the aim of growing the poultry industry in our region.

The group quote a 2009 study into the poultry industry in Australia saying that the industry generates \$107 million total economic activity, comprising of \$39 million in wages, \$37 million in goods and services, \$26 million of which is spent in the North West/New England region and supplies/grain purchases of \$31 million. The study also noted that the industry returns a gross revenue of \$158 million to the overall cluster of farmers in the area. It had invested \$150 million in capital assets and is one of the largest private sectors in the region.

The proposed development of a 20,000 bird poultry operation on the subject site will achieve the key direction in the New England – North West Region Action Plan 2012 of supporting primary production in the region to build on competitive advantage.

Gunnedah Shire Council has developed the *Gunnedah Community Strategic Plan 2012-22*, as the co-ordinating plan that sets out the vision, direction and framework for the Gunnedah Shire into the future. Under this plan building our shires economy is a key area, where agricultural diversity is credited for contributing to our economy. The report outlines a number of strategies for improving our economic employment base diversification. This proposal directly meets strategy 2.5.2 which states to review the LEP and DCP to ensure unnecessary barriers to business establishment are removed.

As outlined in this report the site meets the objectives of the RU1 Primary Production Zone and this rezoning will meet the objectives of the Gunnedah Economic Development Strategy. If the rezoning was not to occur the proposed development could not proceed resulting in a loss of business to the Gunnedah Shire.

The Gunnedah Main Street/Small Towns Program - Grow Gunnedah Program – Community Strategic Plan prepared by de Greenlaw Consulting in August 2004 outlines the importance of expanding existing business and development new businesses and industry in Gunnedah. The proposed development is bringing new business and industry to the Gunnedah Shire and is meeting the key objectives of this program.

The proposed rezoning in this application provides opportunity for new poultry industry on a property which has a long history of cattle and sheep livestock farming. There is high demand for Chinese silkie breed chicken in the Australian marketplace with limited supply in NSW. The development of a 20,000 bird poultry operation with up to 100,000 birds bread in a year on 'Glenbrae' will not only meet the needs of this growing market, it will also provide diversification for this property allowing it to be more sustainable and less susceptible to risks such as decline in livestock prices. The development will only be permissible if the site is rezoned to Primary Production (RU1). We believe the proposed development is aligned with the objectives of the above mentioned regional and local strategic plans.

The guideline requires a review of relevant State Environmental Planning Policies (SEPP) for compatibility with the planning proposal. The table below reviews the compliance of the planning proposal with each SEPP.

State Environmental Planning Policy (SEPP)	Applicable	Consistency	Comment
SEPP 1 – Development Standards	No	N/a	Does not apply to Gunnedah Shire Council
SEPP 4 – Development without consent and miscellaneous exempt and complying development	Yes (N/a Cl. 6 and Parts 3 & 4)	Compliant	
SEPP 6 - Number of Storeys in a building	Yes	Compliant	Planning proposal does not affect the number of storeys for future buildings.
SEPP 15 – Rural land sharing communities	-	N/a	SEPP does not apply to Gunnedah Shire
SEPP 21 – Caravan Parks	-	N/a	Caravan Parks are prohibited in zone RU1 of the Gunnedah LEP
SEPP 30 – Intensive Agriculture	-	N/a	This SEPP applies to proposed cattle feedlots and piggeries, it does not apply to poultry developments
SEPP 32 Urban Consolidation	-	N/a	Does not apply to rural agricultural land.
SEPP 33 Hazardous and Offensive Development	No	N/a	Does not apply to the site. Previous operations are not listed in appendix 3: industries that may fall within SEPP33
SEPP 36 – Manufactured Home Estates	Yes	N/a	This SEPP only applies to land where Caravan parks are permitted. Caravan Parks are not permitted in primary production zoning RU1.
SEPP 44 – Koala Habitat Protection	-	N/a	SEPP 44 has been reviewed and the site does not meet the definition of potential Koala habitat therefore SEPP 44 does not apply to the site.
SEPP 50 - Canal Estate Development	No	N/a	Not applicable to Gunnedah Shire
SEPP 55 – Remediation of Land	Yes	Compliant	Refer to Section C: Land Contamination of this report.
SEPP 62 - Sustainable Aquaculture	No	N/a	There is no aquaculture proposed on the site
SEPP 64 – Advertising and signage	Yes	Compliant	There is no advertising signage proposed as part of this planning proposal.
SEPP 65 – Design Quality of Residential Flat Development	No	N/a	Residential flat accommodation is prohibited in zone RU1.

The guidelines requires a review of the ministerial directions issued by the Minister of Planning under the Environmental Planning and Assessment Act 1979 section 117(2) for compatibility. The table below reviews these directions and their application to this planning proposal.

Employment and Resources

Direction	Applicable	Consistency	Comment
1.1 Business and Industrial Zones	No	N/a	Business and Industrial uses are not permissible in RU1 and E3 zoning
1.2 Rural Zones	No	N/a	Does not apply to Gunnedah Shire
1.3 Mining, Petroleum Production and Extractive Industries	No	N/a	There is no mining or extractive industries on the subject site and the proposed development will not compromise any future extraction of minerals.
1.4 Oyster Aquaculture	No	N/a	Not applicable to Gunnedah Shire
1.5 Rural Lands	No	N/a	Does not apply to Gunnedah Shire

1. Environment and Heritage

Direction	Applicable	Consistency	Comment
2.1 Environmental protection zones	Yes	Compliant	The site is not considered to be environmentally sensitive.
2.2 Coastal Protection	No	N/a	This direction does not apply to Gunnedah Shire
2.3 Heritage Conservation	Yes	Compliant	As outlined in this report there are no items of cultural or Aboriginal Heritage located on or within 100m of the site.
2.4 Recreational Vehicle Areas	No	N/a	There is no recreational vehicle areas proposed.

2. Housing, Infrastructure and Urban Development

Direction	Applicable	Consistency	Comment
3.1 Residential Zones	Yes	Compliant	The proposed development is in a rural area and no urban development/housing is proposed or likely to be proposed in the future for this site.
3.2 Caravan Parks and Manufactured Estates	No	N/a	This direction does not apply as land is not Crown Reserve or dedicated under the National Parks and Wildlife Act 1974
3.3 Home Occupations	Yes	Compliant	The objective of this direction is to encourage the carrying out of low-impact small businesses in dwelling houses. The proposed rezoning does not impact the ability of a small business to be operated from the Glenbrae dwelling in the future.
3.4 Integrated land use and Transport	Yes	Compliant	This does not apply as the planning proposal will not result in the creation, altering or removing a zone or provision relating to urban land. It is proposed to alter the boundary between existing zones.
3.5 Development near licenced Aerodromes	No	N/a	The proposed development is not located near a licenced Aerodrome
3.6 Shooting Range	No	N/a	The site is not located near an existing shooting range.

3. Hazard and Risk

Direction	Applicable	Consistency	Comment
4.1 Acid Sulfate Soils	No	N/a	There are no acid sulphate soils identified in the Gunnedah Shire
4.2 Mine subsidence and unstable land	No	N/a	The site is not located in a mine subsidence district
4.3 Flood Prone Land	No	N/a	The site is not identified as flood prone land in the Gunnedah Local Environment Plan 2012
4.4 Planning for bushfire protection	No	N/a	The site is not identified as bushfire prone land in the Gunnedah shire.

4. Regional Planning

Direction	Applicable	Consistency	Comment
5.1 Implementation of Regional strategies	No	N/a	Does not apply to Gunnedah Shire
5.2 Sydney Drinking Water Catchment	No	N/a	Does not apply to Gunnedah Shire
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	No	N/a	Does not apply to Gunnedah Shire
5.4 Commercial and Retail development along the Pacific Highway, North Coast	No	N/a	Does not apply to Gunnedah Shire
5.8 Second Sydney Airport – Badgerys Creek	No	N/a	Does not apply to Gunnedah Shire
5.9 North West Rail Link Corridor Strategy	No	N/a	Does not apply to Gunnedah Shire

5. Local Plan Making

Direction	Applicable	Consistency	Comment
6.1 Approval and Referral Requirements	No	N/a	Does not apply to the New England North West region.
6.2 Reserving Land for Public Purposes	No	N/a	Does not apply to the Gunnedah/Namoi Catchment
6.3 Site Specific Provision	No	N/a	Does not apply to Gunnedah Shire

6. Metropolitan Planning

Direction	Applicable	Consistency	Comment
7.1 Implementation of the Metropolitan Plan for Sydney 2036	No	N/a	Does not apply to Gunnedah Shire

SECTION C – ENVIRONMENTAL SOCIAL AND ECONOMIC IMPACT

Section C of the guideline requires a review of any environmental, social and economic impacts of the planning proposal. This section reviews potential impacts of the proposed development and where necessary recommends mitigation measures.

4.1 ODOUR

Odour studies have followed the guidelines in the Technical framework: Assessment and management of odour from stationary sources in NSW, published in 2006 by DECC. The framework outlines that Level 1 is a simple screening-level technique based on generic parameter for the type of activity on the site. It is used to assess site suitability for small developments in sparsely populated areas where there is no existing or likely future sensitive receptors located nearby.

The EPA Level 1 odour assessment calculator has been completed for the site. This assessment has been carried out for the closest four residences, which are impacted the most by the proposed development. The proposed development will be located between 690 to 2,200 metres from these residences. The results for all test locations, are appended to this report. The results concluded that at R1 where there is the highest impact, 34 chicken sheds, containing up to 4,000 chickens in each could be located 690 metres from this residence and meet the Level 1 odour criteria in accordance with the DECC technical manual. Receptors R2 to R4 also meet the guidelines. Refer appendix for full results. The proposed development is for a maximum of 5 sheds containing up to 4,000 birds in each shed. It is therefore concluded that the proposed development complies with the EPA guidelines for odour and no further investigation or mitigation measures are required.

The "Glenbrae" residence is project related and therefore does not need to meet the EPA guidelines for odour. This residence is located more than 300 metres from the proposed sheds. A Level 1 assessment has been calculated for this residence and up to 10 sheds can be provided at the site without exceeding acceptable odour levels at the "Glenbrae" residence. The required separation for 5 sheds containing 4,000 birds in each is 174.1 metres. The results of this assessment are appended to this report.

4.2 AIR QUALITY

The EPA is the regulatory authority for the monitoring of air quality in NSW. The existing air quality is expected to be fairly good around the sites vicinity, typical of the rural area. Existing sources of air pollution include dust generated from traffic using Kelvin Road, which is unsealed; dust generated from farming practices and general farming operations; and wind erosion during high wind events.

The proposed development may emit the following air pollution sources:

- Dust generated from vehicle movement on unsealed roads,
- Dust or bioaerosols generated from spreading of used bedding material,
- Bioaerosols generated from spreading of feed, and
- Dust generated in waste management practices.

The proposed development site offers several advantages in terms of potential air quality impacts. These include that the site is removed from any urban areas. The topography of the site places a low ridge

between the proposed chicken sheds and Kelvin Road. The surrounding residences are low density and there are significant separation distances from any other intensive agricultural activity.

Good management practices play an important role in reducing potential for air quality emissions.

The proposed development may have up to 2 delivery trucks a week to transport chickens to and from the site and for feed deliveries. This volume of traffic generated by the development is considered to be low and within the holding capacity of the existing gravel roads. Internal roads will be regularly maintained to minimise dust emissions.

Feed silos will be fully enclosed to prevent the entry of rainwater. This will minimise the risk of bioaerosols developing and minimise dust/particulate matter emissions when loading and unloading.

Poultry sheds will be mechanically and naturally ventilated with windows proposed on three sides. This air circulation will promote optimum growing conditions for bird health and allow the dissipation of any odours. Generally the sheds and surrounds will be kept clean to promote a sanitary environment.

Poultry litter/bedding material will be removed from sheds at the end of each production cycle on a fortnightly basis and spread on site as compost. Where possible handling of material will be avoided during adverse climatic conditions such as time of strong winds. Generally spreading will occur at the shed location. However, if spreading is not to occur at the shed location loads will be transported in a ute and loads are to be covered.

The low density nature of the development and proposed mitigation measures outlined above are expected to abate any air quality impacts from the proposed development on the surrounding environment and sensitive receivers.

4.3 NOISE MANAGEMENT

In NSW, noise pollution is regulated through the Protection of the Environment Operations Act 1997 (POEO Act) which sets certain limits on noise emissions. Noise can be annoying, interfere with speech, disturb sleep or interfere with work. Prolonged exposure to loud noises can also result in a number of health issues.

Potential sources of noise emissions associated with the proposed development are:

- Truck movements along Kelvin Road and internally on the site in delivery and collection of birds and feed supplies.
- Ute and trailer movements within the property, maintain feed, birds, waste etc.

It is recommended that plant and machinery associated with the operations is maintained to meet industry standards and ensure optimal operation and minimal noise generation.

The sheds will be powered from a fixed source eliminating the need for standby diesel generators.

It is recommended that an internal road speed to 40km/hr is adopted and that internal roads are maintained to minimise noise levels. Design of circulation to the sheds will enable a turnaround area to minimise the use of reversing alarms.

Generally the noise emissions from a poultry production operation are considered to be low. It is expected that the noise generated from the proposed operations will be low and separation zones of 690 metres

minimum from surrounding residents is expected to reduce all noise emissions associated with the operations to an acceptable level.

PEST MANAGEMENT

All chicks will be vaccinated prior to delivery to site.

The proponent will implement a pest and vermin control program, which will primarily comprise a preventative baiting system. Chicken sheds and yards will be kept as clean as possible in order to discourage pests from establishing residency within or around the shed environment. Any feed or grain spills will be promptly cleaned up and all general waste will be stored in designed areas for removal from site to a waste management facility.

The proponent intends to trial the use of Maremma sheep dogs to guard the flock from predators including foxes, crows etc. This species of dog has been successfully used in other poultry enterprises.

Dead birds will be collected on a daily basis and disposed of immediately as described in section 6.5 of this report.

At the end of each production cycle (every 10 weeks) poultry litter will be removed from the sheds and disposed of on site. Sheds will be thoroughly cleaned and sanitised before delivery of the next batch.

4.4 WASTE MANAGEMENT

There are three main sources of waste identified for this development. These are waste generated from bedding and litter material, dead birds and general operations wastes. Each of these sources are described below.

Bedding and Litter material

Sheds will be lined with bedding material prior to the occupation by chickens. This bedding material will comprise of sawdust, chaff or straw depending on what is available in the marketplace at the time.

At the conclusion of each batch cycle (10 weeks), bedding material and litter will be removed from the sheds and spread on site as compost. The volume of litter and bedding material will not be large due to the age and size of the chickens.

Climatic conditions should be considered prior to the spreading of bedding and litter material to ensure works are not carried out during strong winds. If material is dry and likely to generate dust, material is to be wetted down prior to and during spreading.

Dead birds

The proposed operations will adopt a composting disposal system for dead birds. This method of disposal is supported by the Australian Chicken Meat Federation (ACMF) as having the ability to reduce litter volume, dispose of carcasses, stabilise nutrients and trace elements and reduce pathogens.

The method proposed on site includes a pit construction with sealed lid for onsite composting of dead birds. The sealed lid will keep rodents, cats, dogs, feral animals, scavenging birds and flies away from the composting carcasses.

Dead Birds are to be collected regularly and disposed of immediately to prevent the spread of disease. If the birds cannot be disposed of immediately they should be stored in a freezer and disposed of in a timely fashion.

The location of the compost pit will be kept away from the residence, sheds and boundary fences. Disposal equipment and containers used to collect dead birds must be washed and disinfected before returning them to the production area.

In the unlikely case that a mass burial is required, due to a biosecurity outbreak, a new composting pit will be dug on site.

General waste

General waste associated with the proposed development will be stored in a designated area at the sheds. This will be removed from site to a waste management facility on an as required basis.

4.5 BIOSECURITY

The National Farm Biosecurity Manual for Chicken Growers, published by the Australian Chicken Meat Federation (ACMF) refers to biosecurity as those measures taken to prevent or control the introduction and spread of infectious agents to a flock. The manual states it is essential that a risk assessment be conducted for each enterprise to establish the level of risk that exists.

The ACMF manual outlines the following causes of disease and pathogen transmission in chicken farms:

- Poultry – transfer of birds from production area to production areas and dead bird disposal.
- Other animals – native birds, feral and domestic animals including other livestock and pets, insects, rodents and domestic birds.
- People – farm personnel and family members living on site, contractors, maintenance personnel, neighbours, servicepersons and visitors. Disease can be transmitted by hands, boots, clothing, dirty hair.
- Equipment vehicles air – Transmission as an aerosol or dust
- Water Supply – water supplies may become contaminated with faeces from contact with avian or other animal species
- Feed – may be contaminated by raw materials used, post-production and during transport, or by exposure to rodents and birds on the property. Bacteria and mould in poor quality or damaged feed may also be a concern.
- Litter – transport of litter material on and off the farm site as well as storage of used litter on site may be a biosecurity risk.

There are no other poultry farms located in close proximity (within 5km radius) of subject site. This limits the risk of pathogen transfer from native birds to the property. The ACMF recommends that a biosecurity procedure be developed for each enterprise. It is recommended that a biosecurity procedure be developed for the site in accordance with the ACMF Level 1 guidelines appended to this report.

4.6 WATER SUPPLY

The main source of water on the property is from two domestic and stock water bores located on the property. These bores feed to three storage tanks and are used on the property for stock watering. There are a number of water storage dams located on the property as shown in topographic and aerial imagery. It is intended to use the bore water to supply the operations.

The National Water Biosecurity Manual – Poultry Production (hereby referred to as DAFF report) outlines that underground or bore water is commonly used in the poultry industry. It is usually considered to have a very low risk of containing avian pathogens and that requirement for on-farm sanitation is uncommon for this water source. Surface water dams are listed as providing the highest risk for potential contamination with avian pathogens, viruses and bacteria. There is also a risk of *E. coli*, *campylobacter* spp. and *salmonella* ssp. associated with water runoff. It is proposed that before dam water is used on site it is tested and treated to eliminate any contamination.

Generally site water sourced does not require treatment. However if required to kill pathogens, the proposed water treatment method, is using organic acids and acidifiers to sanitise water fit for chicken consumption.

To supply the water requirements for the poultry shed, a water main will be installed from the existing concrete tank located at a shearing shed near the site storage sheds. This water main will be connected to the automatic feeder system located in each shed. The bore has always been a reliable water source, with no history of shortage. It will adequately cater for 20,000 chicks requirements. Across the 3 proposed sheds the daily water requirement for the operation is around 600 litres. This will increase to 1,000 litres a day when Stage 2 is constructed.

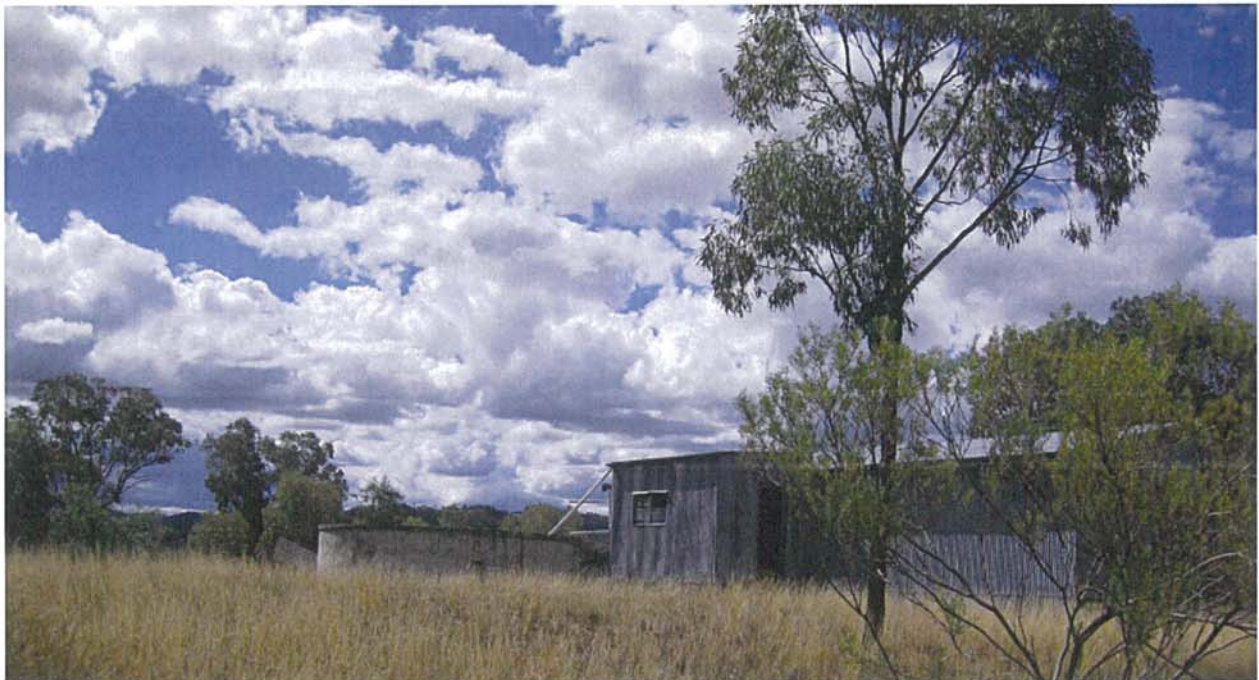


Figure 5: Existing Concrete Storage Tank which will supply Chook Sheds.

At this stage the proponent intends to cool the shed through natural means, of opening windows and positioning the sheds in shaded areas. There is an option to connect a fogger cooling system to the sheds to generate fine mist spray for animal cooling should the proposed system be insufficient.

Shed floors will be clean at the end of each batch cycle, which is 10 weeks. This cleaning will involve the hosing out of the shed and application of commercial sanitisers. Sheds have an area of 160 square metres, with two 80 square metre bays. The volume of water required for cleaning is not expected to be large.

In the case of an emergency, if bore and dam water are unavailable, water will be carted onto the site to meet the operations requirements.

It is recommended that the proponent complies with the National Water Biosecurity Manual for Poultry Production in the water sourcing, handling and treatment.

4.7 LANDFORM, SOIL AND SURFACE WATER RUNOFF

The Willuri topographic mapping from 1983, (figure 6) shows large areas of eroded ground over the property, particularly around Dam Gully and in the lower parts of the property facing Kelvin Road. A number of contour banks have been constructed over the property. These are visible in aerial photography shown in figure 3. Site inspections indicate that there was very little sign of erosion in the vicinity of the proposed development.

The site is gently undulating with slopes of 2% or less. The majority of the site falls to the south into the Lake Keepit Dam catchment. There is a small area along the northern Kelvin Road boundary which falls to the west into the Rangira Creek catchment. There are two watercourses mapped on the subject site. These watercourses are described as Wongo Creek and Dam Gully on topographic mapping.

Surface water is collected and stored in a number of site dams, utilised for stock water. The site is in the upper reaches of the Lake Keepit Catchment with Wongo Creek and Dam Gully, feeding into this catchment. Both these waterways could be described as generally dry depressed gullies fed by contour banks on the property. There are a number of dams along each watercourse, which hold water. In heavy rain events these watercourse carry and hold water for a short period. Both watercourses on the site would be described as intermittent.

The site is not mapped as flood prone in the Gunnedah Local Environment Plan 2012.

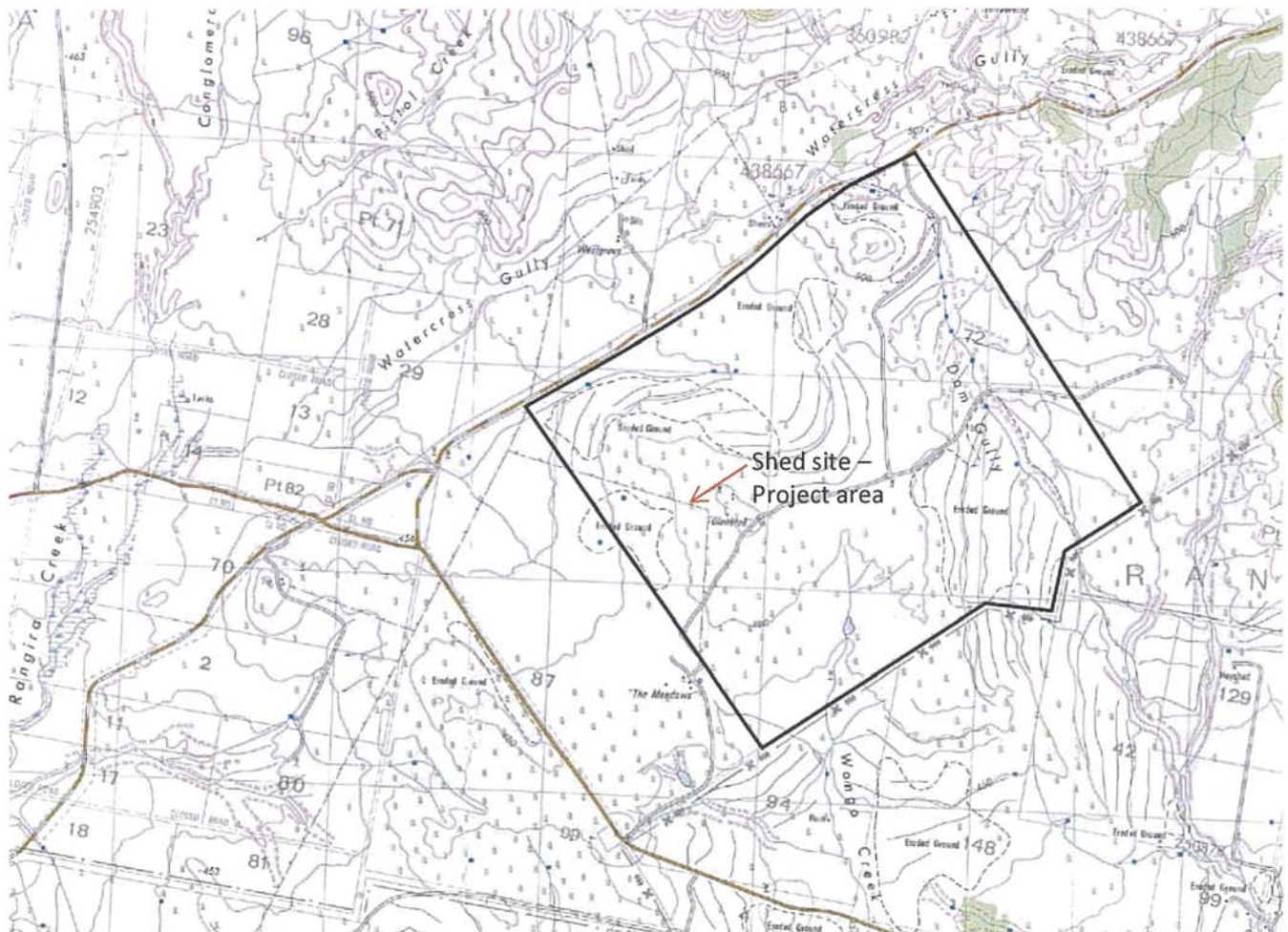


Figure 6: Topographic mapping of the site.

The project area is evenly sloped at approximately 2% falling in a north easterly direction. There are no watercourses mapped within the project area and the site did not show any signs of erosion. Rainfall in the Kelvin area is dominant in summer with the highest intensity also occurring in storm periods during this time. Currently all water shed from the project site (proposed chicken shed paddock) is collected in an existing dam on the property located approximately 45 metres from the project boundary.

The site has been mapped in the Office of Environment and Heritage (OEH) Soil and Land Resources of the Liverpool Plains Catchment. There are three soil groups mapped on the site. These soils groups are Hangmans Hill (HHU), Oodnadatta (OOX) and Conglomerate Creek (CKR). The distribution of each group is shown in figure 7. The eroded ground shown in the topographic map is generally in areas mapped as the Oodnadatta soil group.