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# Hilltops Free Range Eggs

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## Scoping Report

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<b>Scoping Report</b>	Scoping report to accompany Form A Request for the Planning Secretary's Requirements for the preparation of an Environmental Impact Statement
<b>Applicant</b>	Dr. Anthony J de Silva
<b>Location</b>	Reynoldsdale, 1056 Lachlan Valley Way, Boorowa NSW 2586

<b>Report</b>	<b>Date</b>
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## Abbreviations

Abbreviation	Description
The Applicant	Dr. Anthony J de Silva
BOM	Australian Bureau of Meteorology
Council	Hilltops Council
DA	Development Application
DPIE	NSW Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EPL	Environment Protection Licence
Form A	Request for the Planning Secretary's Requirements for the preparation of an Environmental Impact Statement
HFRE	Hilltops Free Range Eggs
LEP	Local Environmental Plan
The Site	Reynoldsale property located at 1056 Lachlan Valley Way (Lot 1 DP789025, Lot 133 DP754585 and EP20896), Boorowa
SEAR	Secretary Environmental Assessment Requirements
SEPP	State Environmental Planning Policy

# 1 INTRODUCTION

## 1.1 Background

Hilltops Free Range Egg farm (HFRE) is a small, low density, producer of pasture-raised, free range eggs. HFRE is owned and operated by Dr. Anthony J de Silva (the Applicant); and egg production commenced in 2017 on the Reynoldsale property located at 1056 Lachlan Valley Way (Lot 1 DP 789025, Lot 133 DP 754585 and EP 20896), Boorowa NSW (the Site).

In July 2021, the Applicant received notification from Hilltops Council (Council) that:

- The property was zoned RU1 Primary Production under the Boorowa Local Environmental Plan 2012.
- The property was located within the drinking water catchment for the Boorowa township water supply.
- Development of a poultry farm within this zone is permitted with consent from Council.
- That the development was designated development under the *Environmental Planning and Assessment Act 1979*.
- That a formal Development Application (DA) is required to be lodged with Council for consideration.

Upon receipt of this notification, the Applicant commenced the process of lodging a DA with Council, including consultation with Council and preparation of a *Request for the Planning Secretary's Requirements for the preparation of an Environmental Impact Statement* (Form A). The Applicant is seeking Planning Approval to continue current low density, pasture-raised, free range egg production on the Site (the Development).

In August 2021, HFRE appointed a suitable qualified environmental consultant, MacMahon Consulting Pty Ltd, to advise HFRE on the DA process and inform Form A.

A draft Scoping Report was prepared to support the submission of Form A. The Scoping Report was provided to Council for comment (refer Table 2-3). Following receipt of comments from the Council, the Scoping Report was finalised (this Scoping Report). The purpose of this Scoping Report is to support Form A. This Scoping Report is based on the following industry guidelines:

- Planning Guidelines Intensive Livestock Agriculture Development (NSW Department of Planning, Industry and Environment (DPIE), 2019).
- Egg Industry Environmental Guidelines Edition II (Australian Eggs Limited Publication, May 2018).

## 1.2 Site Location

The Site is located at 1056 Lachlan Valley Way, Boorowa. Locality maps are included as Figure 1-1 and Figure 1-2, and in accordance with Form A requirements includes the boundary of the Site, roads, towns and waterbodies, scale and a compass. Site layout information is provided in Figure 1-3, Figure 1-4 and Figure 1-5.

## 1.3 Project Rationale

HFRE is a pasture-raised free range egg producer, applying sustainable biodynamic agricultural practices producing quality eggs, which are supplied directly to customers within hours. There is minimal egg storage and no long distribution chains. The quality of the eggs produced at HFRE was demonstrated at the Royal Sydney Easter Show 2022 and 2021, where HFRE received the Champion Award.

Rising concerns from consumers regarding animal welfare has prompted consumers to switch from cage egg to free range egg production. *“Demand for free range eggs has grown significantly in Australia over the last 15 years and egg farmers have responded by investing in increased free range egg farming capacity. Free range is now the most popular egg category at the supermarket, making up 47 percent of total retail sales”* (<https://www.australianeggs.org.au/>).

HFRE's primary objectives are focussed on supplying fresh eggs to free range egg consumers, providing best practice animal welfare and to improve protection, resilience and productive capacity of soils, water and vegetation



on Site. To meet these objectives HFRE is adopting Australian Government Smart Farm best practices, tools and technologies to develop a sustainable biodynamic and innovative agricultural system.

HFRE business objectives align with Council's Economic Action Plan's strategic intent to attract industry, targeting agriculture, and building business capacity by workforce development and a 'Buy Local' program (Hilltops Council, 2018). HFRE's innovative agriculture systems also provide an opportunity to contribute to Council's plan to build a strong education and research base around the agricultural industry.

1.4 Free Range Egg Production

HFRE is a pasture-raised, free range egg production farm using portable, mobile roosting and laying 'caravans' with portable water and feeding stations, in paddocks that are rotated between wool-producing sheep and chickens (refer Photo 1). There are no permanent poultry sheds used for poultry accommodation on the Site. Mobile caravans have an open floor with manure deposited on the land. Regular, scheduled movement of mobile caravans provides even distribution of nutrients from manure across the egg production paddocks. Groundcover in egg production paddocks is maintained at 80 -100%. There is no collection, storage, stockpiling and/or composting of manure on Site.

The maximum bird population on Site is 30,000 laying birds. Small flocks of birds occupy sub-divisions within 13 paddocks on the Site, with flocks protected by Maremma dogs. The size of each flock of birds is kept small, and the mobile caravans and feeders and mobile water stations are spread out, minimising bird density in each paddock.

Eggs are laid in the mobile caravans by hens that have unrestricted daytime access to pastures that are suitable for grazing with water, feed, shade and shelter. The distance between mobile caravans is a minimum of 150 metres. At night, birds return to the mobile caravans which are moved weekly to provide fresh pasture and groundcover recovery.

Key elements of HFRE operations are summarised in Table 1-1.



Photo 1: HFRE’s mobile roosting and laying caravan (on Site)

Table 1-1: Key Elements of HFRE Operations

Element	Description
Number of mobile, portable roosting houses	<ul style="list-style-type: none"><li>Small flocks occupy sub-divisions within 13 paddocks on the Site (refer Figure 1-3).</li><li>There are two to three mobile caravans for each flock, with less than 50 mobile caravans in total on the Site.</li></ul>
Maximum bird population per mobile roosting house	<ul style="list-style-type: none"><li>There is a maximum of 900 birds per mobile caravan.</li></ul>

Element	Description
Maximum bird population on farm	<ul style="list-style-type: none"> <li>30,000 laying birds.</li> <li>The farming method used for HFRE poultry is similar to the free-range grazing of sheep which is undertaken in the surrounding properties and the Boorowa area. According to Elders' Dry Sheep Equivalent calculations for the Boorowa area, the carrying capacity of Reynoldsale at 90kg / sheep, is 5,000 sheep (i.e. 450,000kg total sheep weight). In comparison, based on an average maximum weight of 3kg / chicken, and the current maximum bird population at HFRE (30,000 chickens), the current total chicken weight on Site is 90,000kg, which is considerably less than the maximum sheep weight carrying capacity of 450,000kg.</li> </ul>
Maximum bird density on farm	<ul style="list-style-type: none"> <li>45 birds / hectare.</li> </ul>
Number of permanent poultry sheds	<ul style="list-style-type: none"> <li>Zero. There are no permanent poultry sheds on the Site.</li> </ul>
Fertilising	<ul style="list-style-type: none"> <li>No chemical fertiliser is added to pastures.</li> </ul>
Composting	<ul style="list-style-type: none"> <li>Composting is not conducted on the Site.</li> </ul>
Bird mortality management	<ul style="list-style-type: none"> <li>Dead birds are classified as General Solid Waste (putrescible) in accordance with Waste Classification Guidelines (NSW EPA, 2014) and the <i>Protection of the Environment Operations Act 1979</i>.</li> <li>Dead birds are collected from the egg production areas on a daily basis, stored in a chiller on Site, and disposed of at the Jugiong landfill.</li> <li>There is no burial or composting of dead birds on Site.</li> </ul>
Traffic and transportation	<ul style="list-style-type: none"> <li>Access to and from the Site is via Lachlan Valley Way and approx. 500m of council-maintained stockroad from Lachlan Valley Way to the HFRE farm gate intersection (refer Figure 1-4 and Photos 2 and 3).</li> <li>Weekly traffic movements are limited to: <ul style="list-style-type: none"> <li>Eggs are transported twice a week, in two trucks owned by the Applicant, directly from the farm to customers and markets in Sydney and Canberra.</li> <li>Feed is delivered twice a week in a truck owned by the Applicant, directly from the mill to the farm.</li> <li>Supplier services are picked up on the way back from Sydney and Canberra egg deliveries in the same trucks, and brought to the farm.</li> <li>Waste products are removed from the site by tipper truck owned by the Applicant once every two to three weeks.</li> </ul> </li> <li>The existing intersection with the Site (near Stockroute 63) and Lachlan Valley Way provides clear access and egress for the low volume of traffic accessing and egressing the site. No additional intersection treatments or access upgrades are proposed for the low traffic impact of the development (refer Photo 2 and Photo 3).</li> <li>No traffic incidents have been recorded relating to HFRE operations since egg production commenced on the Site in 2017.</li> </ul>
Water Supply	<ul style="list-style-type: none"> <li>Farm operations use rain water and bore water.</li> <li>There is no connection to towns water.</li> </ul>
Electricity Supply	<ul style="list-style-type: none"> <li>The dwellings and packing shed are connected to the electricity grid.</li> <li>No electricity is consumed by the mobile caravans for hens.</li> </ul>
Sewerage	<ul style="list-style-type: none"> <li>Sewerage from amenities is treated in a septic tank with pump out services provided by Yass contractors, Poo Carters.</li> <li>There is no connection to the towns sewerage system.</li> </ul>
Employment	<ul style="list-style-type: none"> <li>5 full time employees.</li> <li>12 part-time and/or casual employees.</li> <li>4 local maintenance contractors.</li> </ul>
Capital Investment Value	<ul style="list-style-type: none"> <li>\$3.5million (without the land)</li> </ul>
Construction	<ul style="list-style-type: none"> <li>HFRE is seeking Planning Approval to continue current low density, pasture-raised, free range egg production on the Site. No construction is proposed.</li> </ul>

In addition to mobile caravans, HFRE includes:

- Two dwellings associated with HFRE operations are located on the Site.
- Ancillary existing infrastructure to support HFRE including:
  - A packing shed (workshop).
  - Amenity facilities encompassing office space, toilets, and employee change rooms.
  - A kitchen within one of the existing dwellings will be used to make egg pasta and baked goods from HFRE eggs (subject to approval from the Food Authority).
  - Three feed silos.
  - Six water storage tanks.
  - General waste storage for disposal at Boorowa landfill.
  - Dead bird chiller.
  - Workshop.
  - Access road and intersection with Lachlan Valley Way.
- Non-intensive grazing operation of sheep is also conducted on Site.

No clearing of native vegetation is proposed for operations at the Site.

1.5 Site Description

Physical characteristics of the Site are summarised in Table 1-2.

Table 1-2: Physical Characteristics

Physical Characteristic	Description	Reference
Size	<ul style="list-style-type: none"><li>• The Site is approximately 380 hectares.</li><li>• Approximately 30% of the 380 hectare Site is used for pasture for egg production (refer Photo 1 and Figure 1-3) with the remainder of the Site used for poultry feed crops such as oats, Japanese millet and wheat.</li></ul>	<ul style="list-style-type: none"><li>• <a href="https://maps.six.nsw.gov.au/">https://maps.six.nsw.gov.au/</a></li><li>• Observation</li></ul>
Topography	<ul style="list-style-type: none"><li>• The topography of the Site is undulating low hills ranging between approximately 540 and 570metres AHD (refer Figure 1 2), with slope gradients in the region between 3 – 10%.</li><li>• Egg production areas are undertaken on the flatter areas of the Site with slopes ranging from:<ul style="list-style-type: none"><li>○ a rise of approximately 20m over 1,000m (i.e. 2% slope factor); to</li><li>○ a rise of approximately 20m over 600m (i.e. 3.3% slope factor).</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Boorowa Soil Landscape (DPIE <a href="#">eSpade</a>)</li></ul>
Amenity	<ul style="list-style-type: none"><li>• The visual amenity of the Site is that of a rural property that has been modified by historic land clearing and long-term agricultural production activities (refer Figure 1-3 ). The surrounding area is predominantly used for grazing of sheep for fine wool production with minor cropping.</li></ul>	<ul style="list-style-type: none"><li>• Observation</li><li>• Boorowa LEP 2012</li></ul>
Climate	<ul style="list-style-type: none"><li>• The average annual rainfall for Boorowa is around 615 mm (slightly winter dominant). Summers are mild to warm, and winters are cool to cold</li></ul>	<ul style="list-style-type: none"><li>• <a href="#">BOM</a></li></ul>
Soil	<ul style="list-style-type: none"><li>• The soils of the egg production areas are predominantly located on Binalong Soil Landscape (eSpade) with fine sandy loam underlain by red, yellow or yellow mottled clay. Mottled slightly alkaline grey clays may occur beneath the clay loams. Soil reaction is neutral.</li></ul>	<ul style="list-style-type: none"><li>• Observation</li><li>• Binalong Soil Landscape YE-bi (DPIE <a href="#">eSpade</a>)</li><li>• Boorowa Soil Landscape YP-bw (DPIE <a href="#">eSpade</a>)</li></ul>



Physical Characteristic	Description	Reference
Native vegetation	<ul style="list-style-type: none"> <li>Significant disturbance of the natural environment within the Site has occurred as a result of historic clearing and long-term agricultural production, as shown in Figure 1-3.</li> <li>No clearing of native vegetation is proposed for operations at the Site.</li> <li>Small pockets of native vegetation are present in northern part of the Site outside of the egg production pasture areas as shown on the Terrestrial Biodiversity Map in the Boorowa LEP 2012 (refer Figure 2-1).</li> <li>The Site is not identified as 'environmentally sensitive land' as shown in Environmentally Sensitive Land in the Boorowa LEP 2012.</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> <li>Boorowa LEP 2012</li> <li><a href="http://www.planningportal.nsw.gov.au">www.planningportal.nsw.gov.au</a></li> <li>Native Vegetation of Boorowa Shire (NSW National Parks and Wildlife, 2002)</li> <li>DPIE <a href="#">eSpade</a></li> </ul>
Pasture	<ul style="list-style-type: none"> <li>HFRE egg production is undertaken on permanent pasture (80 - 100% annual groundcover).</li> </ul>	
Native fauna	<ul style="list-style-type: none"> <li>Significant disturbance of the natural environment within the Site has occurred as a result of historic clearing and long-term agricultural production, as shown in Figure 1-3.</li> <li>The modified nature of the vegetation, particularly cropped and mostly treeless paddocks, significantly limits the value of the area as habitat for native fauna.</li> </ul>	
Surface water resources	<ul style="list-style-type: none"> <li>On a regional scale, the Site is located within the water catchment of the Boorowa River. The catchment supports the drinking water catchment of the township of Boorowa. The Boorowa River flows approximately 7 kilometres to the south of the Site (refer Figure 1-1).</li> <li>On Site there is one named watercourse in the west of the Site, Geegullalong Creek, in which water flows intermittently; a tributary pattern of creeks / topographical depressions in the eastern half of the Site in which water flows intermittently; and dams holding surface water are located across the Site (refer Figure 1 2). The depressions have no formed banks and are only distinguishable as drainage features by their location.</li> <li>There are no riparian land and watercourses on the Site as shown on the Riparian Land and Watercourses Map in the Boorowa LEP.</li> <li>No wetlands exist within the Site as shown on the Wetlands Map in the Boorowa LEP 2012; and there are no wetlands within 10 kilometres of the Site as shown on the <a href="#">NSW Wetlands Database</a> (NSW Government).</li> <li>Egg production mobile caravans are located greater than 100m from Geegullalong Creek.</li> </ul>	<ul style="list-style-type: none"> <li>Observation</li> <li>Boorowa LEP 2012</li> <li><a href="http://www.planningportal.nsw.gov.au">www.planningportal.nsw.gov.au</a></li> <li><a href="https://maps.six.nsw.gov.au/">https://maps.six.nsw.gov.au/</a></li> <li><a href="#">NSW Wetlands Database</a> (NSW Government).</li> </ul>
Groundwater resources	<ul style="list-style-type: none"> <li>There is one registered groundwater bore located on the lowest point of Site. The depth of the bore is approximately 20metres. There are eight and &gt;20 registered bores within 2 kilometres and 5 kilometres of the Site respectively as shown on the Australian Bureau of Meteorology Australian Groundwater Explorer database. Groundwater within the area is primarily used for monitoring, irrigation, and stock and domestic purposes.</li> <li>A small area (approximately 200m<sup>2</sup>) near the entrance to the Site at 1056 Lachlan Valley Way, and outside of the egg production areas on the Site, is identified as groundwater vulnerable land as shown on the Groundwater Vulnerability Map in the Boorowa LEP 2012. Mobile caravan egg production areas are not located on groundwater vulnerable land.</li> </ul>	<ul style="list-style-type: none"> <li>Australian Groundwater Explorer (BOM)</li> </ul>

Physical Characteristic	Description	Reference
Flooding	<ul style="list-style-type: none"><li>The Site is not identified as a 'flood planning area' as shown in the Flood Planning Map in the Boorowa LEP 2012.</li></ul>	<ul style="list-style-type: none"><li>Boorowa LEP 2012</li><li><a href="http://www.planningportal.nsw.gov.au">www.planningportal.nsw.gov.au</a></li><li><a href="https://maps.six.nsw.gov.au/">https://maps.six.nsw.gov.au/</a></li></ul>
Bushfire prone land	<ul style="list-style-type: none"><li>The Site is not identified as 'bushfire prone land' as shown in Bushfire Prone land (non EPI) in the Boorowa LEP 2012.</li></ul>	<ul style="list-style-type: none"><li>Boorowa LEP 2012</li><li><a href="http://www.planningportal.nsw.gov.au">www.planningportal.nsw.gov.au</a></li></ul>

1.6 Separation Distances

The Site is isolated from urban areas and there is a very low density of surrounding rural residences. A summary of separation distances is provided in Table 1-1.

Table 1-3: Separation Distances

Item	Distance from HFRE egg production areas on Site
Rural residential dwellings not associated with HFRE	Greater than 1 kilometre
Dwellings on the Site	Greater than 500 metres
Other poultry farms	Greater than 30 kilometres

1.7 Complaints

No complaints have been received by HFRE since operations commenced in 2017.

1.8 Sustainable Agricultural Practices

HFRE is adopting Australian Government Smart Farm best practices, tools and technologies to improve protection, resilience and productive capacity of soils, water and vegetation on Site.

HFRE has developed a sustainable, agricultural system to:

- Improve the Site's soil biodynamic mass using soil microbiota, manure (natural fertiliser) produced by HFRE chickens and sufficient groundcover.
- Relocate mobile caravans, rotate paddocks, and use mobile caravans specifically designed without a floor, to avoid manure build-up.
- Provide capacity for HFRE to adapt to the natural significant changes in climate and weather.
- Avoid clearing of native vegetation on Site.
- Monitor nutrients in soil.

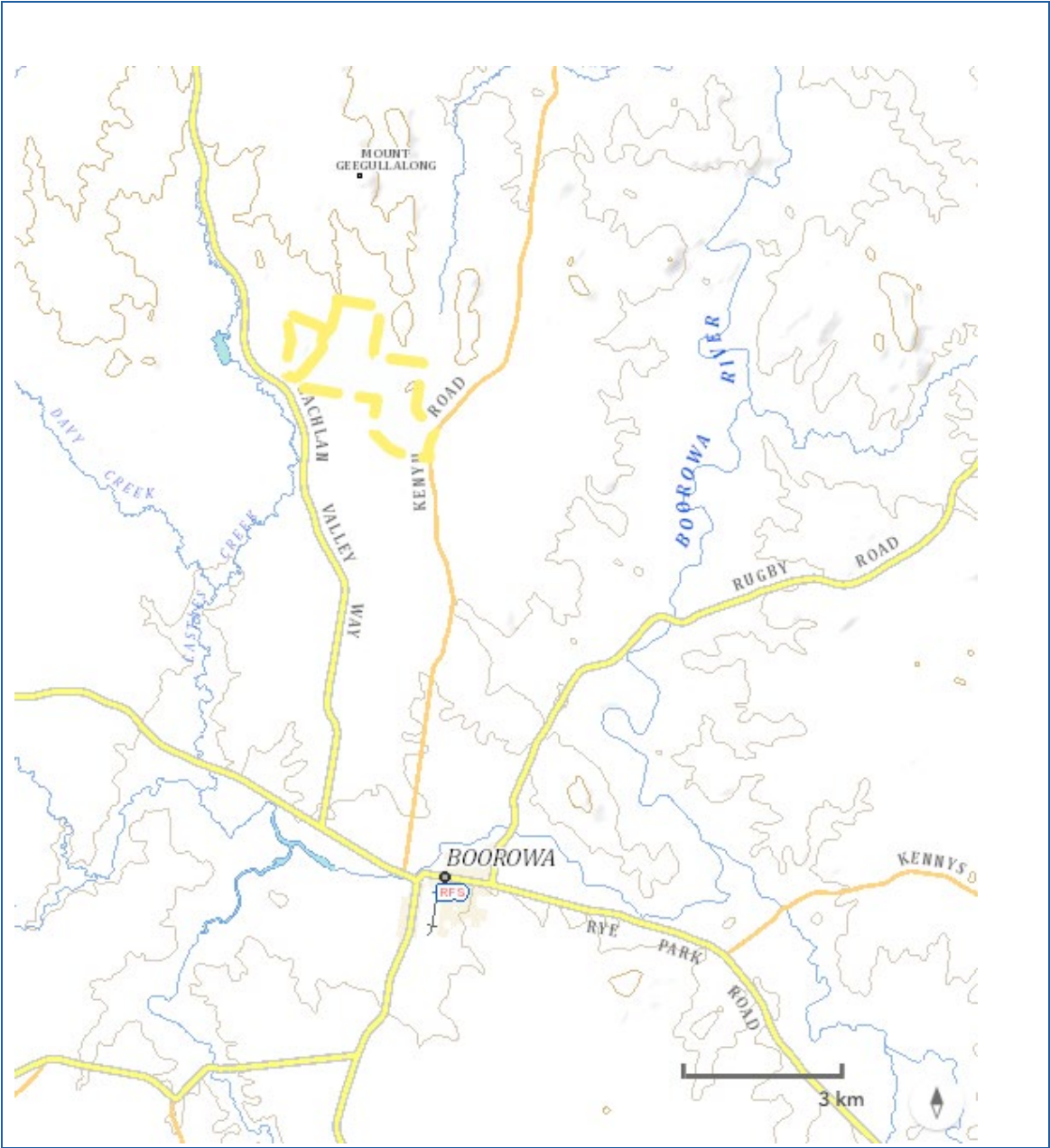


Figure 1-1: Site Location

Site Location at 1056 Lachlan Valley Way, Boorowa showing boundary of the Site (yellow dashed lines), roads, Boorowa township and waterbodies. Source: [www.planningportal.nsw.gov.au](http://www.planningportal.nsw.gov.au)

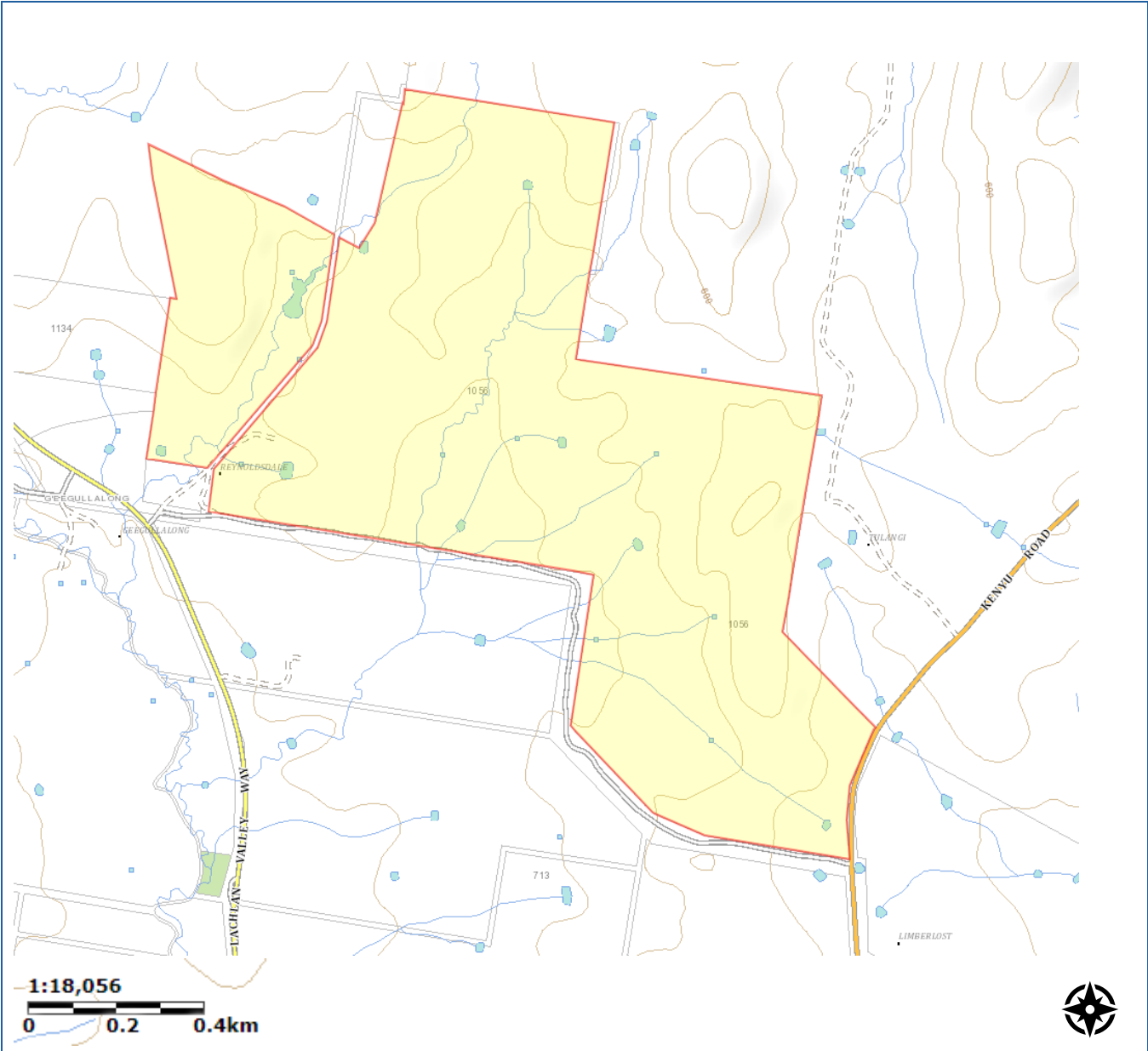


Figure 1-2: Site Map

Site Map at 1056 Lachlan Valley Way, Boorowa showing boundary of the Site, roads, creeks and contours. Contour intervals are 20m. Source: <https://maps.six.nsw.gov.au/>



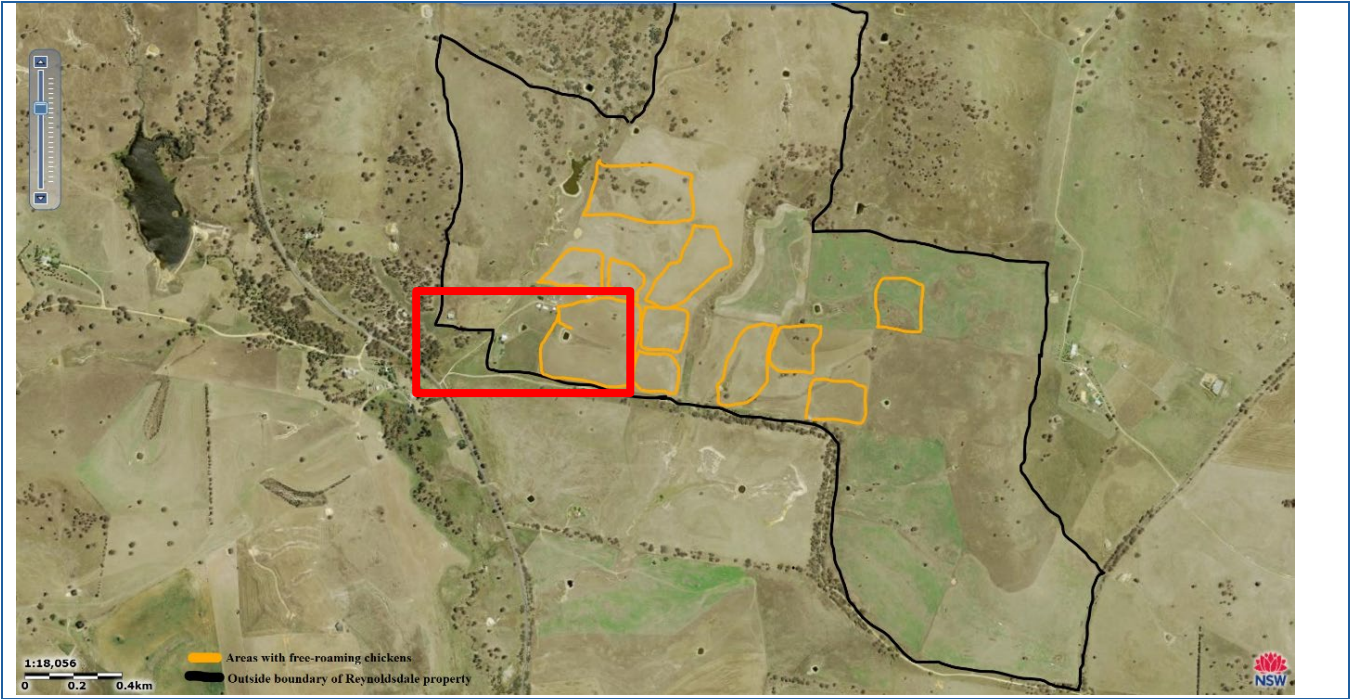


Figure 1-3: Site amenity and egg production pasture areas

Figure 1-3 shows the property boundary (black line), the visual amenity of the Site as a rural property that has been modified by historic land clearing and long-term agricultural production activities, and areas of HFRE pasture that are used for free range egg production (yellow lines). Details of the HFRE access road and infrastructure area (red box) are shown in Figure 1-4.



Figure 1-4: Site access and HFRE infrastructure area

Figure 1-4 shows the HFRE access roads from Lachlan Valley Way and the HFRE infrastructure area including the power supply to the site (purple line), dwellings and amenities, feed silos, water tanks and septic tank – located in the southwestern corner of the property.

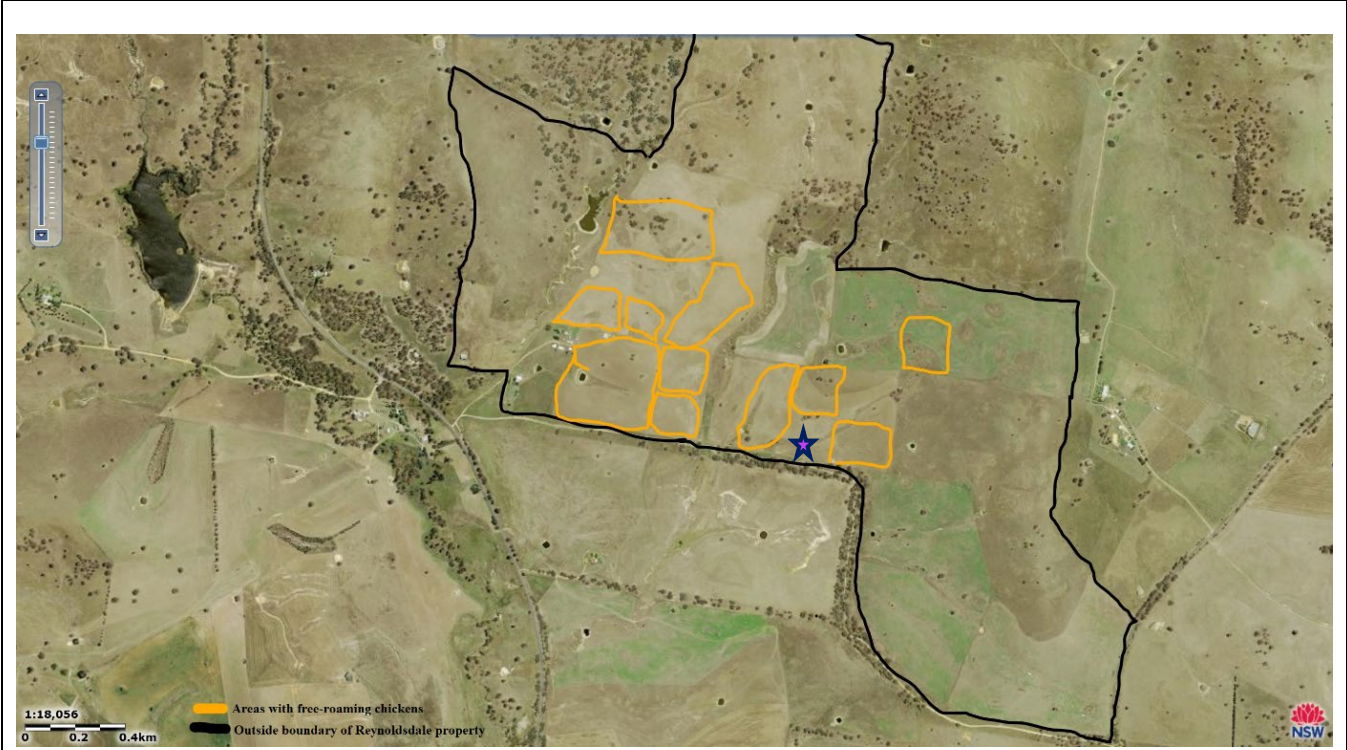


Figure 1-5. Egg production pasture areas and solar power bore pump.

Figure 1-5 shows the property boundary (black line), the location of the solar operated bore water pump (purple star), and egg production pasture areas (yellow lines).



**Photo 2: Existing intersection for access to HFRE from Lachlan Valley Way (facing west)**



**Photo 3: View from council maintained road to Lachlan Valley Way (facing west). This photo also shows a second access route from the council maintained road to Lachlan Valley Way (to the south of the main access).**



Lachlan Valley Way

## 2 Planning Considerations

### 2.1 Land Use Zone and Permissibility

The Site is zoned RU1 Primary Production under the Boorowa Local Environment Plan 2012 and is located within the drinking water catchment for the Boorowa township water supply. A poultry farm within this zone is permitted with the consent of Hilltops Council. Consent had not been obtained for current operations and consequently, a DA is required to be lodged with Hilltops Council for consideration for current operations.

As the Site is located in a declared drinking water catchment for the township of Boorowa, HFRE is a designated development under the *Environmental Planning and Assessment Act 1979* and requires an Environmental Impact Statement.

The matters to be addressed in the Environmental Impact Assessment must be confirmed by application of Form A (which accompanies this Scoping Report).

### 2.2 Planning Controls

Planning controls applicable to the Site, as identified in the Boorowa Local Environmental Plan 2012 and DPIE ePlanning Spatial Viewer in September 2021, are shown in Figure 2-1 and identify:

- The Boorowa drinking water catchment includes the egg production areas of the Site.
- A small area of groundwater vulnerability is located at the entrance to the Site. This area is outside of the egg production areas on the Site.
- High conservation value vegetation (Terrestrial Biodiversity) is identified in small pockets in the northern part of the Site outside of the egg production areas.

Significant disturbance of the natural environment within the Site has occurred as a result of historic clearing and long-term agricultural production, as shown in Figure 1-3. No clearing of native vegetation is proposed for continued operations at the Site

A review of Commonwealth legislation and associated databases has identified that HFRE:

- Has small pockets of native vegetation in the northern part of the Site outside of the egg production areas.
- Has no matters of national environmental significance protected by the *Environment Protection and Biodiversity Conservation Act 1999*.
- There are no RAMSAR wetlands protected by international treaty (RAMSAR Convention) within the Site or surrounding area.
- Is not a World Heritage Property.
- Is not a National heritage Place.
- Is not a designated riparian land and watercourses.
- Is not expected to degrade habitat for mobile threatened species.
- Is not expected to be inhabited by nationally listed migratory species.

A review of NSW State legislation is summarised in Table 2-1.

Building upgrades (fire safety, structural adequacy etc.) at the site will comply with the Building Code of Australia and the Food Act 2003 (smooth surfaces, easily cleaned etc.). Plans of these buildings and the manufactures specifications for any plant will be submitted as part of the Development Application.

Table 2-1: NSW State Legislation

Legislation	Agency	Applicable to HFRE?
<b>Roads Act 1993 s138</b> Consent to: a) erect a structure or carry out a work in, on or over a public road b) dig up or disturb the surface of a public road c) remove or interfere with a structure, work or tree on a public road d) pump water into a public road from any land adjoining the road e) connect a road (whether public or private) to a classified road	<ul style="list-style-type: none"> <li>Council and TfNSW</li> </ul>	<ul style="list-style-type: none"> <li>No, as there is no building and/or road construction proposed.</li> </ul>
<b>Protection of the Environment Operations Act 1997 (POEO Act)</b> <b>s. 43, 47, 48, 55, 122</b> Environment Protection Licence (EPL) to: a) authorise the carrying out of scheduled development work at any premises (scheduled development work is listed in Schedule 1 of the POEO Act 1997 b) authorise the carrying out of scheduled activities at any premises (excluding an activity described as a 'waste activity' but including any activity described as 'waste facility') c) control carrying out of non-scheduled activities for the purposes of regulating water pollution from the activity	<ul style="list-style-type: none"> <li>NSW Environment Protection Authority</li> </ul>	<ul style="list-style-type: none"> <li>No, an EPL is not required as HFRE has 30,000 birds. The trigger for an EPL in Schedule 1 of the POEO Act is more than 250,000 birds at any one time.</li> </ul>
<b>Rural Fires Act 1997</b> <b>s. 100B</b> Bushfire Safety Authority for the: a) subdivision of bushfire prone land* that could lawfully be used for residential or rural residential purposes b) development of bushfire prone land* for a special fire protection purpose as defined in s. 100B of the Rural Fires Act 1997	<ul style="list-style-type: none"> <li>Rural Fire Service</li> </ul>	<ul style="list-style-type: none"> <li>No, as the land is not identified as 'Bushfire Prone Land' on the Boorowa LEP 2012.</li> </ul>
<b>Water Management Act 2000</b> <b>s. 89, 90, 91</b> Water use approval, water management work approval or activity approval under Part 3 of Chapter 3	<ul style="list-style-type: none"> <li>DPIE Department of Primary Industries</li> </ul>	<ul style="list-style-type: none"> <li>No, water needs for HFRE will be met using the existing groundwater bore, rainwater and dams.</li> </ul>
<b>Fisheries Management Act 1994</b> <b>s. 144</b> Aquaculture permit	<ul style="list-style-type: none"> <li>DPIE Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Fisheries Management Act 1994</b> <b>s. 201</b> Permit to carry out dredging or reclamation work	<ul style="list-style-type: none"> <li>DPIE Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Fisheries Management Act 1994</b> <b>s. 205</b> Permit to cut, remove, damage or destroy marine vegetation on public water, land, an aquaculture lease, or on the foreshore of any such land or lease	<ul style="list-style-type: none"> <li>DPIE Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Fisheries Management Act 1994</b> <b>s. 219</b> Permit to: a) set a net, netting or other material b) construct or alter a dam, floodgate, causeway or weir c) otherwise create an obstruction, across or within a bay, inlet, river or creek, or across or around a flat	<ul style="list-style-type: none"> <li>DPIE Fisheries</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>



Legislation	Agency	Applicable to HFRE?
<b>Heritage Act 1977</b> <b>s. 58</b> Approval in respect of the doing or carrying out of an act, matter or thing referred to in s.57(1) of the Heritage Act 1977	<ul style="list-style-type: none"> <li>DPIE Office of Environment and Heritage</li> </ul>	<ul style="list-style-type: none"> <li>No, as there are no identified heritage sites within the Site and construction work is not proposed.</li> </ul>
<b>Coal Mine Subsidence Compensation Act 2017</b> <b>s. 21</b> Approval to alter or erect improvements or to subdivide land within a Mine Subsidence District	<ul style="list-style-type: none"> <li>Subsidence Advisory</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Mining Act 1992</b> <b>s. 63, 64</b> Grant of mining lease	<ul style="list-style-type: none"> <li>Resources and Geoscience</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>National Parks and Wildlife Act 1974</b> <b>s. 90</b> Grant of Aboriginal heritage impact permit	<ul style="list-style-type: none"> <li>DPIE Office of Environment and Heritage</li> </ul>	<ul style="list-style-type: none"> <li>No, as there are no identified Aboriginal heritage sites within the Site and construction work is not required.</li> </ul>
<b>Petroleum (Onshore) Act 1991</b> <b>s. 9, 42</b> Grant of production lease	<ul style="list-style-type: none"> <li>Resources and Geoscience</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Threatened Species Conservation Act 1995</b>	<ul style="list-style-type: none"> <li>DPIE Office of Environment and Heritage</li> </ul>	<ul style="list-style-type: none"> <li>No, as the egg production areas on Site are highly modified and disturbed as the land has been cleared for agriculture for many decades.</li> </ul>

## 2.3 State Environmental Planning Policies

State Environmental Planning Policies (SEPPs) that were considered as potentially applicable to HFRE are summarised in Table 2-2.

**Table 2-2: State Environmental Planning Policies**

SEPP	Applicable to HFRE?
SEPP (State and Regional Development) 2011	<ul style="list-style-type: none"> <li>No, as the capital investment for HFRE is \$1.5million, which is significantly less than \$30 million trigger for State Significant Development.</li> </ul>
SEPP (Infrastructure) 2007	<ul style="list-style-type: none"> <li>No, as HFRE does not match traffic-generating development categories listed in Schedule 3 of the SEPP.</li> </ul>
SEPP No. 3 – Intensive Agriculture	<ul style="list-style-type: none"> <li>No, as SEPP No.3 relates specifically to cattle feedlots and piggeries only.</li> </ul>
SEPP No. 55 – Remediation of Land	<ul style="list-style-type: none"> <li>No, as the risk of discovering significant land contamination within the Site is considered to be minimal given the following:               <ul style="list-style-type: none"> <li>The long-term and existing use of the Site and adjoining lands is traditional agricultural production, primarily comprising cropping with some livestock grazing.</li> <li>There are no identified previous or existing land use activities that may have caused or attributed to significant soil contamination.</li> <li>There are no known areas within the Site where toxic wastes, poisons or the like have been dumped or buried to cause or attribute to soil contamination.</li> </ul> </li> </ul>

SEPP	Applicable to HFRE?
SEPP No. 33 – Hazardous and Offensive Development	<ul style="list-style-type: none"><li>No, as the operations and limited materials stored and handled at HFRE do not create an off-site risk or offence to people, property or the environment and consequently are not considered as 'potentially hazardous industry' or 'potentially offensive industry'.</li></ul>

2.4 Consultation

Consultation has been undertaken with Council regarding the DA process and is summarised as:

- HFRE Site inspection by Hilltops Council on 19 May 2021.
- Letter to HFRE advising that the development is permitted with consent and that a DA and an environmental impact assessment are required (Hilltops Council, 19 July 2021).
- Letter to HFRE for a Notice of Intention to issue a Development Control Order (Hilltops Council, 22 July 2021).
- Letter to HFRE regarding serious concerns regarding the Environmental and Public Health impacts from disposal of dead chickens (Hilltops Council, 9 August 2021).
- Emails to Hilltops Council advising changes to disposal method of dead birds and progress on selection of environmental professional (HFRE, 9 and 16 August 2021).
- Email to Hilltops Council confirming environmental consultant and cessation of dead bird burial (HFRE, 22 August 2021).
- A Pre-lodgement meeting on was held with Hilltops Council’s Senior Land Use Planner on 24 August 2021, regarding HFRE’s proposed approach for Form A.
- Email to HFRE (Hilltops Council, 28 January 2022). A summary of how issues raised in this email have been addressed is included in Table 2-3.

Table 2-3 Scoping Report Review (Hilltops Council, 28 January 2021)

Comment/Issue (Hilltops Council, 28 January 2021)	How this issues has been addressed
<i>'Council has reviewed your scoping report and considers it is acceptable for lodgement with the NSW Department of Planning, Industry and Environment (DPIE) to resolve the formal requirements for an environmental impact statement to support a future Development Application.'</i>	<ul style="list-style-type: none"><li>• Noted</li></ul>

<b>Comment/Issue</b> <b>(Hilltops Council, 28 January 2021)</b>	<b>How this issues has been addressed</b>
<p>Limited information of traffic volumes associated with the supply of feed, services and waste management for the development, existing public roads and intersections.</p>	<ul style="list-style-type: none"> <li>• Additional traffic and access information has been included in Table 1-1: Key Elements of HFRE Operations (Traffic and transportation), Table 3-1: Risk Assessment (No.5 Traffic), Photo 2, and Photo 3.</li> <li>• Access to and from the Site is via Lachlan Valley Way and approx. 500m of council-maintained stockroad from Lachlan Valley Way to the farm gate intersection (refer and Photo 2 and Photo 3).</li> <li>• Weekly traffic movements are limited to:               <ul style="list-style-type: none"> <li>○ Eggs are transported twice a week, in two trucks owned by the Applicant, directly from the farm to customers and markets in Sydney and Canberra.</li> <li>○ Feed is delivered twice a week in a truck owned by the Applicant, directly from the mill to the farm.</li> <li>○ Supplier services are picked up on the way back from Sydney and Canberra egg deliveries in the same trucks, and brought to the farm.</li> <li>○ Waste products are removed from the site by tipper truck owned by the Applicant once every two to three weeks.</li> </ul> </li> <li>• The existing intersection with the Site (near Stockroute 63) and Lachlan Valley Way provides clear access and egress for the low volume of traffic accessing and egressing the site. No additional intersection treatments or access upgrades are proposed to cater for the development (refer Photo 2).</li> <li>• No traffic incidents have been recorded relating to HFRE operations since egg production commenced on the Site in 2017.</li> </ul>
<p>Limited information on existing buildings, amenities, kitchen or associated on-site sewage management system(s) or waste management.</p>	<ul style="list-style-type: none"> <li>• Building upgrades (fire safety, structural adequacy etc.) will comply with the Building Code of Australia and the Food Act 2003 (smooth surfaces, easily cleaned etc.). Plans of these buildings and the manufactures specifications for any plant will be submitted as part of the Development Application.</li> <li>• Plans and further information on the fit out and construction of these will be submitted as part of the Development Application.</li> </ul>
<p>Limited details on the site plan</p>	<ul style="list-style-type: none"> <li>• Site plan has been revised to include layout of flocks and location of packing shed.</li> </ul>





**Figure 2-1: Boorowa LEP 2012 Protection Areas**

1956 Lachlan Valley Way, Boorowa showing planning control protection areas on Site (Drinking Water Catchment, Groundwater Vulnerability and Terrestrial Biodiversity) Source: <https://maps.six.nsw.gov.au/>

### 3 Risk Assessment

To inform the level of environmental impact assessment by DPIE, a risk assessment of key, potential environmental issues of the existing HFRE operation has been undertaken and is provided in Table 3-1.

The risk assessment has been undertaken in accordance with the risk assessment approach provided in Appendix A of the Planning Guidelines Intensive Livestock Agriculture Development (NSW Department of Planning, Industry and Environment (DPIE), 2019). The risk assessment methodology is summarised in Appendix A.

**Table 3-1: Risk Assessment**

No.	Issue	Potential Issue / Risk	Existing Controls and /or Management Strategy	Probability	Consequence	Risk Rating	Proposed Additional Controls and/or Management Actions
1	Land use	<ul style="list-style-type: none"> <li>Land use conflict</li> </ul>	<ul style="list-style-type: none"> <li>The potential for conflict between HFRE and the existing surrounding agricultural production activities is considered rare.</li> <li>No land use conflict complaints have been received by HFRE since egg production commenced on the Site in 2017.</li> <li>HFRE is a relatively small activity and pasture-raised, free range production is confined to areas surrounding mobile caravans located within the Site.</li> </ul>	E	3	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
2	Air Quality	<ul style="list-style-type: none"> <li>HFRE generates unacceptable odour emissions impacting on residences on neighbouring properties.</li> </ul>	<ul style="list-style-type: none"> <li>The distance between rural dwellings not associated with HFRE and the HFRE paddocks with free range chickens in mobile caravans is greater than 1km.</li> <li>Hilltops Free Range Eggs is a small, pasture-raised, free range egg production farm using mobile caravans with portable water and feeding stations. There is no build-up of manure and /or biological matter within buildings, as there are no permanent poultry sheds on the Site. There is scheduled relocation of mobile caravans and paddock rotation.</li> <li>No odour and/or air quality complaints have been received by HFRE since egg production commenced on the Site in 2017.</li> </ul>	D	4	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
3	Noise	<ul style="list-style-type: none"> <li>HFRE egg production generates unacceptable noise levels at residences on neighbouring properties.</li> </ul>	<ul style="list-style-type: none"> <li>No noise complaints have been received by HFRE from neighbours since egg production commenced on the Site in 2017.</li> <li>HFRE is removed from town areas and there is a very low density of privately-owned residences on neighbouring properties.</li> <li>HFRE is a small, pasture-raised, free range egg production farm using mobile caravans with portable water and feeding stations. HFRE operations have no permanent poultry sheds on the Site.</li> </ul>	E	4	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
4		<ul style="list-style-type: none"> <li>Traffic movements associated with HFRE generate unacceptable noise levels at residences along the transport route/roads.</li> </ul>	<ul style="list-style-type: none"> <li>Eggs are transported twice a week, in two trucks owned by the Applicant, directly from the farm to local markets in Sydney and Canberra.</li> </ul>	E	5	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
5	Traffic	<ul style="list-style-type: none"> <li>Traffic movements associated with HFRE increases impacts and/or safety risks on local traffic and transport routes.</li> </ul>	<ul style="list-style-type: none"> <li>Weekly traffic movements are limited to: <ul style="list-style-type: none"> <li>Eggs are transported twice a week, in two trucks owned by the Applicant, directly from the farm to customers and markets in Sydney and Canberra.</li> <li>Feed is delivered twice a week in a truck owned by the Applicant, directly from the mill to the farm.</li> <li>Supplier services are picked up on the way back from Sydney and Canberra egg deliveries in the same trucks, and brought to the farm.</li> <li>Waste products are removed from the site by tipper truck owned by the Applicant once every two to three weeks.</li> </ul> </li> <li>The existing intersection with the Site (near Stockroute 63) and Lachlan Valley Way provides clear access and egress for the low volume of traffic accessing and egressing the site. No additional intersection treatments or access upgrades are proposed for the low traffic impact of the development (refer Photo 2 and Photo 3).</li> <li>No traffic incidents have been recorded relating to HFRE operations since egg production commenced on the Site in 2017.</li> </ul>	D	5	Low	<ul style="list-style-type: none"> <li>No</li> </ul>

No.	Issue	Potential Issue / Risk	Existing Controls and /or Management Strategy	Probability	Consequence	Risk Rating	Proposed Additional Controls and/or Management Actions
6	Lighting	<ul style="list-style-type: none"> <li>HFRE lighting negatively impacts upon rural residences on neighbouring properties.</li> </ul>	<ul style="list-style-type: none"> <li>HFRE is a pasture-raised, free range egg production farm using mobile caravans with portable water and feeding stations. HFRE operations have no permanent poultry sheds on the Site.</li> <li>No electricity/power generation is provided to mobile caravans and no lighting exists on mobile caravans.</li> </ul>	E	5	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
7	Native vegetation	<ul style="list-style-type: none"> <li>HFRE will impact on threatened flora and fauna.</li> </ul>	<ul style="list-style-type: none"> <li>HFRE is adopting <u>Australian Government Smart Farm</u> best practices, tools and technologies to improve protection, resilience and productive capacity of soils, water and vegetation and to improve biodiversity on Site.</li> <li>No clearing of native vegetation is proposed at the Site.</li> </ul>	E	3	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
8	Surface water resources	<ul style="list-style-type: none"> <li>HFRE cause unacceptable impacts to the quality of drinking water in the Boorowa catchment from the release of nitrogen and phosphorus from chicken manure to surface waters and leads to eutrophication.</li> </ul>	<ul style="list-style-type: none"> <li>HFRE is a pasture-raised, free range egg production farm using portable, mobile caravans with portable water and feeding stations (refer Photo 1). The maximum bird population is 30,000 laying birds and the bird density is very low at 45 hens / hectare. Approximately 30% of the Site is used for egg production with small flocks of birds occupying sub-divisions within 13 paddocks on the Site.</li> <li>Mobile caravans are moved weekly to provide fresh pasture for birds and impacted pasture to recover. There are no permanent poultry sheds used for poultry accommodation on the Site.</li> <li>Pastures are 80 – 100% annual groundcover.</li> <li>Mobile caravans are located greater than 100m from waterways</li> <li>Range areas are rotated to allow denuded areas to recover.</li> <li>A nutrient risk assessment for HFRE pasture free range area impacts to surface waters has been undertaken in accordance with the Egg Industry Environmental Guidelines Edition II (Australian Eggs Limited Publication, May 2018) and is included in Appendix B. The nutrient risk assessment considered rainfall, distance to waterways, farm size, soil profile, land shape, groundcover, stocking rate, slope, soil phosphorus and soil phosphorus buffering capacity. The risk assessment of the HFRE free range area nutrient impacts to surface water indicates that the Site is Low risk and suitable for continued pasture-raised, free range operation.</li> </ul>	D	4	Low	<ul style="list-style-type: none"> <li>Conduct monitoring of surface water quality.</li> <li>Monitor soil nutrients to allow management of soil constraints and potential excess nutrients.</li> <li>Continue to improve the soil's biodynamic mass using soil microbiota, natural fertiliser produced by the chickens and maintain sufficient groundcover.</li> <li>Avoid clearing native vegetation on Site.</li> </ul>
9		<ul style="list-style-type: none"> <li>HFRE cause unacceptable impacts to the quality of drinking water in the Boorowa catchment from decomposing dead birds generating bacteria / viral contaminants.</li> </ul>	<ul style="list-style-type: none"> <li>Since August 2021, there has been no burial or composting of dead birds on Site and it is proposed there will be no further burial of dead birds on Site. Dead birds are collected from egg production areas on a daily basis, stored in a chiller on Site, and disposed of at the Jugiong landfill.</li> </ul>	C	4	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
10		<ul style="list-style-type: none"> <li>HFRE cause unacceptable impacts to the flow of local surface water resources.</li> </ul>	<ul style="list-style-type: none"> <li>The potential for HFRE to impact surface water flow is considered low as pastures are 80 – 100% annual groundcover and mobile caravans are not fixed.</li> </ul>	D	4	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
11		<ul style="list-style-type: none"> <li>HFRE cause unacceptable impacts to waterways from soil erosion.</li> </ul>	<ul style="list-style-type: none"> <li>The potential for erosion to impact waterways is considered low as pastures are 80 – 100% annual groundcover.</li> </ul>	D	4	Low	<ul style="list-style-type: none"> <li>No</li> </ul>

No.	Issue	Potential Issue / Risk	Existing Controls and /or Management Strategy	Probability	Consequence	Risk Rating	Proposed Additional Controls and/or Management Actions
12	Groundwater	<ul style="list-style-type: none"> <li>HFRE will result in unacceptable impacts to the quality of groundwater resources.</li> </ul>	<ul style="list-style-type: none"> <li>A small area (approximately 200m<sup>2</sup>) near the entrance to the Site at 1056 Lachlan Valley Way, and outside of the egg production areas on the Site, is identified as groundwater vulnerable land as shown on the Groundwater Vulnerability Map in the Boorowa LEP 2012 (Figure 2-1). Mobile caravan egg production pasture areas are not located on groundwater vulnerable land.</li> <li>There is one groundwater bore located on the lowest point of Site (Figure 1-5). The bore depth is approximately 20metres.</li> <li>Since August 2021, there has been no burial or composting of dead birds on Site and there will be no further burial of dead birds on Site.</li> <li>A nutrient risk assessment for HFRE pasture free range area impacts to groundwater has been undertaken in accordance with the Egg Industry Environmental Guidelines Edition II (Australian Eggs Limited Publication, May 2018) and is included in Appendix B. The nutrient risk assessment considered soil profile, depth to groundwater, rainfall factor, pasture type, farm size and stocking rate. The risk assessment of the HFRE free range area nutrient impacts to groundwater indicates that the Site is Low risk and suitable for continued pasture-raised, free range operation.</li> </ul>	E	4	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
13	Flooding	<ul style="list-style-type: none"> <li>Flooding in the area results in isolation of HFRE.</li> </ul>	<ul style="list-style-type: none"> <li>The Site is not identified as a 'flood planning area' as shown in the Flood Planning Map in the Boorowa LEP 2012.</li> </ul>	E	4	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
14	Land contamination	<ul style="list-style-type: none"> <li>Soil contamination from HFRE activities.</li> </ul>	<ul style="list-style-type: none"> <li>HFRE do not use fertilisers and the risk of land contamination from free range egg production on Site is considered to be minimal given the following: <ul style="list-style-type: none"> <li>There is no power generation and associated fuel required for mobile caravans.</li> <li>The long-term and existing use of the Site and adjoining lands is traditional agricultural production, primarily comprising cropping with some livestock grazing.</li> <li>There are no identified previous or existing land use activities that may have caused or attributed to significant soil contamination.</li> <li>There are no known areas within the Site where toxic wastes, poisons or the like have been dumped or buried to cause or attribute to soil contamination.</li> </ul> </li> </ul>	E	3	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
15	Heritage	<ul style="list-style-type: none"> <li>HFRE impact on items/areas of Aboriginal cultural significance and /or items of European heritage significance.</li> </ul>	<ul style="list-style-type: none"> <li>The Site has been cleared for agricultural purposes for many decades. No new clearing and/or construction is proposed for continued use.</li> </ul>	D	4	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
16	Visual Amenity	<ul style="list-style-type: none"> <li>HFRE adversely impacts on the visual amenity of the local area.</li> </ul>	<ul style="list-style-type: none"> <li>The visual amenity of the Site is that of a rural property that has been modified by historic land clearing and long-term agricultural production activities (refer Figure 1-3). The surrounding area is predominantly used for grazing of sheep for fine wool production with minor cropping.</li> </ul>	D	5	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
17	Chemical Storage	<ul style="list-style-type: none"> <li>Inappropriate storage and use of chemicals, or inappropriate management and disposal of chemical containers, results in environmental risk or incident.</li> </ul>	<ul style="list-style-type: none"> <li>HFRE egg production has limited chemical requirements.</li> <li>No fertiliser is used on Site.</li> <li>Power generation is not required for mobile caravans.</li> </ul>	D	5	Low	<ul style="list-style-type: none"> <li>No</li> </ul>



No.	Issue	Potential Issue / Risk	Existing Controls and /or Management Strategy	Probability	Consequence	Risk Rating	Proposed Additional Controls and/or Management Actions
18	Poultry Disease	<ul style="list-style-type: none"> <li>A major poultry disease outbreak at the Site.</li> </ul>	<ul style="list-style-type: none"> <li>There is a major economic incentive for HFRE to ensure flocks are kept disease free. HFRE places a high importance on maintaining flock health through vaccination, farm hygiene and biosecurity.</li> <li>HFRE is located greater than 38 kilometres from other poultry facilities and is away from wild waterfowl habitat to minimise risk of disease transfer between farms.</li> <li>Poultry disease prevention: The site is subject to NSW Biosecurity Act 2015 and the Biosecurity Control Order 2020 and is subject to annual inspections and compliance checks. The operation follows protocols to enforce poultry disease prevention and avoid outbreaks, including keeping small flocks separated by empty paddocks.</li> <li>Alignment with the Animal Welfare requirements as specified in the “Code of Practice for Biosecurity in the Egg Industry – 2nd Edition” (Grimes and Jackson, 2015), the “National Farm Biosecurity Technical Manual for Egg Production” (AHA, 2015), and the “National Water Biosecurity Manual: Poultry Production” (DAFF, 2009b).</li> <li>In the unlikely event of a major disease outbreak, the EPA and DPI will be contacted as soon as the breakout is suspected and will likely assume control of the Site. Immediate measures will be implemented to isolate the flock, effect strict quarantine procedures to prevent the spread of the disease, and notification of relevant stakeholders. Upon confirmation that immediate slaughter of farm stock is necessary, slaughter will be managed by the DPI in coordination with the EPA and technical service units of the poultry industry. The birds will be slaughtered on Site and disposed in accordance with NSW Waste Classification guidelines.</li> </ul>	E	3	Low	<ul style="list-style-type: none"> <li>No</li> </ul>
19	Pest population	<ul style="list-style-type: none"> <li>Poor farm management leads to increased pest populations.</li> </ul>	<ul style="list-style-type: none"> <li>HFRE's knowledge and experience, including best management practices and pest control measures.</li> <li>Design, purpose build and operation of mobile caravans.</li> <li>Daily inspection of egg production areas.</li> </ul>	D	5	Low	<ul style="list-style-type: none"> <li>No</li> </ul>



## 4 Conclusion

This Scoping Report has involved consultation with Council and includes a project risk assessment of the existing HFRE operation. The risk assessment identified that potential environmental issues presented a low risk and consequently, that the Site was suitable for continued pasture-raised, free range egg production. The risk assessment did not identify any medium or high environmental risks.

Additional surface water quality and soil nutrient monitoring was proposed (refer Table 3-1: Risk Assessment, Item 8 Surface water resources).

**Appendix A:**  
**Assessing and Documenting Risks**  
**Planning Guidelines Intensive Livestock Agriculture**  
**Development (DPIE, 2019)**

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## Appendix A: Assessing and documenting risks

As discussed in section 3, the following is a simplified process for assessing the risks of an intensive livestock development proposal. This is adapted from the [Land Use Conflict Risk Assessment Guide](#).

### How do you assess potential risk?

Risk is measured by considering the probability of an event occurring and the likely consequences if the event were to actually take place.

Risk probabilities may range from almost certain to rare (see **Table 1**).

**Table 1: Probability Table**

Level	Descriptor	Description
<b>A</b>	Almost certain	Common or repeating occurrence
<b>B</b>	Likely	Known to occur, or 'it has happened'
<b>C</b>	Possible	Could occur, or 'I've heard of it happening'
<b>D</b>	Unlikely	Could occur in some circumstances, but not likely to occur
<b>E</b>	Rare	Practically impossible

Risk consequences may then range from severe to negligible (see **Table 2**).




**Table 2: Consequences**

Level	Description
<b>1</b>	<b>Severe</b> - Severe and/or permanent damage
<b>2</b>	<b>Major</b> - Serious and/or long-term impact
<b>3</b>	<b>Moderate</b> - Moderate and/or medium-term impact
<b>4</b>	<b>Minor</b> - Minor and/or short-term impact
<b>5</b>	<b>Negligible</b>

The risk probability and risk consequence score are then combined in a matrix to create an overall risk assessment matrix (see **Table 3**). This matrix may range from 1 (lowest risk) to 25 (highest risk). Developments should aim to achieve a low risk ranking (i.e. 1-8).

**Table 3: Risk Ranking Matrix**

Probability	A	B	C	D	E
Consequence					
1	25	24	22	19	15
2	23	21	18	14	10
3	20	17	13	9	6
4	16	12	8	5	3
5	11	7	4	2	1

 High Risk
  Medium Risk
  Low Risk

## Appendix B

# Nutrient Risk Assessment – Surface Water and Groundwater

Nutrient risk assessment for HFRE pasture free range area impacts to surface waters and groundwater has been undertaken in accordance with Appendix C of the Egg Industry Environmental Guidelines Edition II (Appendix C, Australian Eggs Limited Publication, May 2018). The results of the risk assessments are summarised in Table B-1 and Table B-2.

**Table B-1: Risk assessment of pasture free range area impacts to surface waters.**

Runoff Factors	HFRE Result	Factor Weight	Factor Score		Risk Factor (Weight x Score)
Rainfall factor (erosivity)	1,200 -2,500 (MJ mm)/ha hr yr	20	<5000 (MJ mm)/ha hr yr	1	20
Distance to waterways (distance from the centre of the egg production pastures to Geegullalong Creek)	>100m	15	100 - 200m	2	30
Farm size (no. of birds)	30,000	15	10,000 - <60,000	2	30
Soil profile	Fine sandy loam underlain by red, yellow or yellow mottled clay.	10	Between 'Poorly structured soils' (2) and 'Constrained soils' (4)	3	30
Land shape	Undulating low hills	10	Slightly uneven, minor rills	4	40
Groundcover (% of groundcover in free range areas)	Permanent pasture (80% - 100% annual groundcover)	10	80 - 100%	1	10
Stocking rate (no. birds / hectare)	45 birds / hectare	5	<750 birds / hectare	1	5
Slope (%)	<4%	5	1-<3.75%	4	20
Soil Phosphorus (loam)	25mg/kg and 94mg/kg Colwell Phosphorus <sup>Note</sup>	5	>36 (based on the maximum Colwell Phosphorus result)	8	40
Topsoil Phosphorus buffering Index	41 and 57 Phosphorus Buffer Index <sup>Note</sup>	5	35 - <140 (sandy loam))	4	20
Total risk score				100-400 (Low)	245

<sup>Note</sup> Colwell Phosphorus and Phosphorus buffer index results are for two samples taken from two paddocks in December 2020 (Report No. WN201967, DPI Environmental Laboratory, 18 December 2020).

**Table B-2: Risk assessment of pasture free range area impacts to groundwater.**

Runoff Factors	HFRE Result	Factor Weight	Factor Score		Risk Factor (Weight x Score)
Soil Profile	Fine sandy loam underlain by red, yellow or yellow mottled clay.	25	Between 'Poorly structured soils' (2) and 'Constrained soils' (4)	3	75
Groundwater	>10m	20	There is one bore on site with bore depth approximately 20m.	1.5	30
Rainfall factor	1,200 -2,500 (MJ mm)/ha hr yr	20	<5000 (MJ mm)/ha hr yr	1	20
Pasture type	>30% deep rooted perennials including lucerne	10	>30% deep rooted perennials	2	20
Farm size	30,000	15	10,000 - <60,000	2	30
Stocking rate (no. birds / hectare)	45 birds / hectare	5	<750 birds / hectare	1	5
Total risk score				100-400 (Low)	180