

**PROPOSED EXPANSION OF POULTRY LAYING AND REARING
FACILITIES ON THE REMAINDER OF THE DARM DARGLE NO. 913,
UMNGENI MUNICIPALITY:
BASIC ASSESSMENT
BACKGROUND INFORMATION DOCUMENT
EIA REF: DC22/0036/2013**



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1. INTRODUCTION

Terratest (Pty) Ltd has been appointed by the Gravic Farm Trust to conduct the Environmental Authorisation Process for the proposed expansion of laying and rearing facilities on the Remainder of the Farm Dargle No. 913, uMngeni Municipality. The application for Environmental Authorisation will be conducted in accordance with the regulations contained within the National Environmental Management Act (NEMA, Act 107 of 1998) which came into effect on 2 August 2010. Under these regulations, a Basic Assessment process will be followed.

The following listed activities contained in GNR 544 of the NEMA regulations (2010 will be applied for:

Number and date of relevant notice	Activity No (s) (in terms of the relevant notice)	Description of each listed activity as per project description
<p>GNR 544, 18 June 2010</p>	<p>11</p>	<p><i>The construction of:</i></p> <p>(x) <i>buildings exceeding 50 square meters in size;</i></p> <p><i>Where such construction occurs in a watercourse or within 32 meters of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</i></p> <p><i>The proposed laying houses will have a development footprint of 4 350m³ (excluding the footprint of roads and associated infrastructure). A small stream / tributary runs to the west of the proposed development. It is likely that portions of the proposed development will fall within 32 meters of this stream / tributary.</i></p>
<p>GNR 544, 18 June 2010</p>	<p>32</p>	<p><i>The expansion of facilities for the concentration of poultry, excluding chicks younger than 20 days, where the capacity of the facility will be increased by:</i></p> <p>(i) <i>More than 1 000 poultry where the facility is situated in an urban area; or</i></p> <p>(ii) <i>More than 5 000 poultry where the facility is situated outside an urban area.</i></p> <p><i>The facility is located outside of an urban area and the proposed expansion will result in an increase in capacity of 42 000 birds.</i></p>

According to the regulations, it is necessary for the Applicant to appoint an independent Environmental Assessment Practitioner (EAP) who will adhere to the environmental stipulations and complete the applicable environmental process on behalf of the Applicant. In this case, the relevant role players for the proposed development are as follows:

Applicant	Gravic Farm Trust
Environmental Assessment Practitioner	Terratest (Pty) Ltd
Competent Authority	KwaZulu-Natal Department of Agriculture and Environmental Affairs (DAEA)

The Public Participation Process, as promulgated in terms of Chapter 6 of the NEMA Regulations (GN R543, 2010) is a fundamental process whereby the proponent, technical team, government authorities, key stakeholders and Interested and Affected Parties (IAPs) can engage in an informed decision-making process. This Public Participation Process will be conducted according to the requirements stipulated in Sections 54 - 57 of the NEMA EIA Regulations (2010).

2. SITE LOCATION AND DESCRIPTION

The property on which the activity is proposed is described as the Remainder of the Farm Dargle No. 913, uMngeni Municipality. This property is owned by the Project Applicant. The property is approximately 405ha in extent, though the footprint of the proposed development will be limited to approximately 0.6ha.

The property is currently the site of an existing poultry operation. The sites identified for development have been developed in the past, and comprise kikuyu pasture or maize lands. No sensitive environments such as watercourses, wetlands or natural forests occur within the proposed development footprint, though they do occur in proximity to the development sites. Potential impacts on these systems as a result of the proposed expansion will therefore need to be investigated.

The proposed houses are to be located at the following approximate locations:

HOUSE	SOUTHERLY CO-ORDINATE	EASTERLY CO-ORDINATE
LAYING HOUSE 1	29° 29' 36.63" S	30° 00' 38.88" E
LAYING HOUSE 2	29° 29' 37.47" S	30° 00' 38.83" E
REARING HOUSE	29° 29' 07.54" S	29° 59' 59.47" E

The site can be accessed by travelling north on the N3 Freeway towards Johannesburg, take Exit 107 towards Tweedie. At the top of the Ramp, turn left onto Main Road. Drive for 1.4km until a T-junction is reached. Turn right onto the R103 Road and continue for 5.1 km. after crossing the Lions River, take the Dargle Road turn off to the left and continue approximately 15km along this road. After passing a poultry facility on the left, take the second gravel road to the right. This road travels to the proposed development sites.

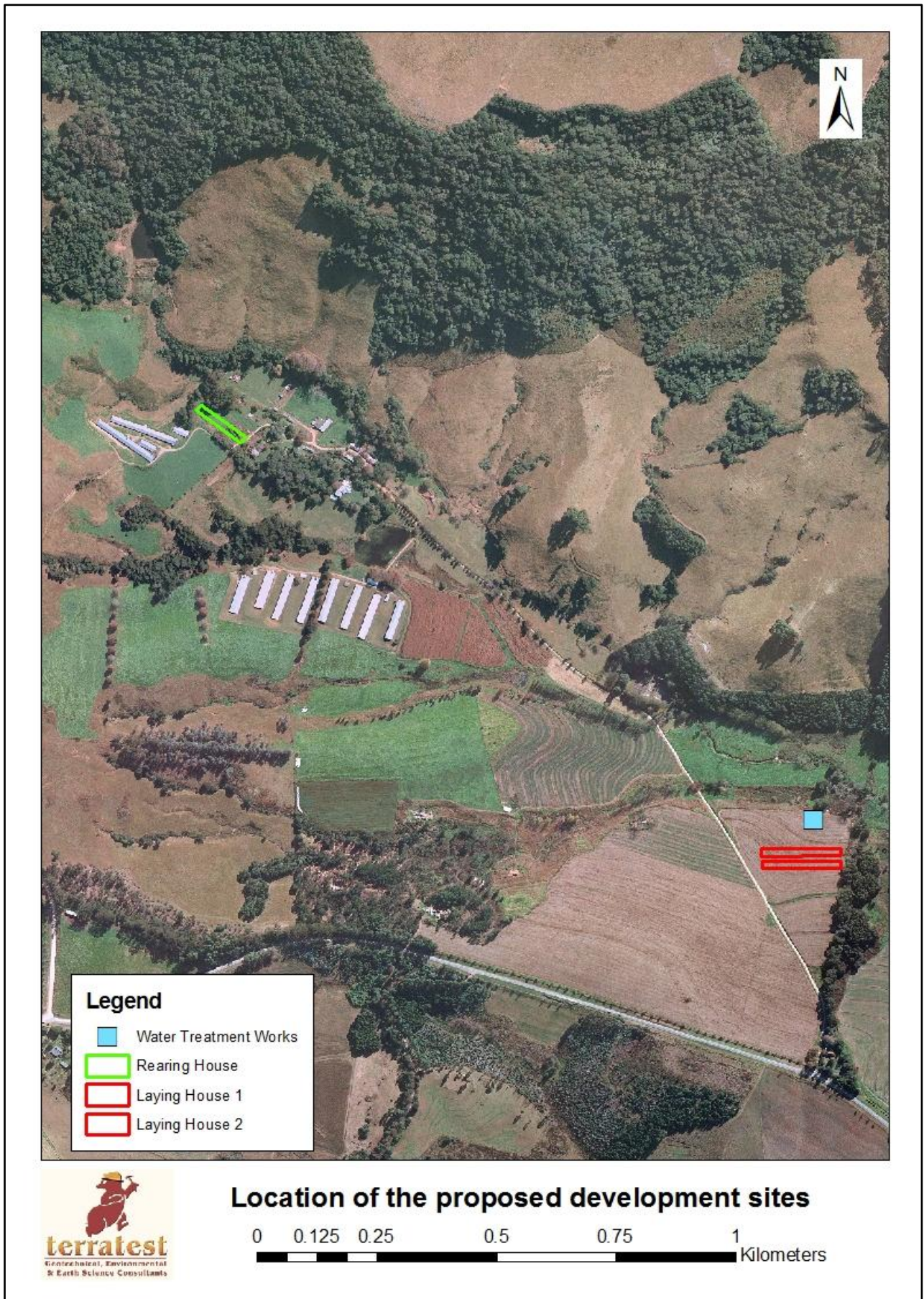


Figure 1: Approximate location of the various components of the proposed development

3. PROPOSED ACTIVITY

It is proposed that the existing poultry operations currently owned and operated by the Gravic Farm Trust, be expanded. This expansion would constitute the construction of one new rearing house and two new laying houses as well as associated roads and infrastructure.

The proposed rearing house would measure 15m x 105m and the laying houses would measure 15m x 145m each. These houses would have the capacity to hold approximately 14 000 birds resulting in an increase of approximately 42 000 birds on the property.

Rearing houses are used to grow chicks into sexually mature chickens with the ability to produce eggs. Chicks arrive at the facility at one day old are kept in rearing houses up until the age of approximately 21 weeks, at which time they start laying and are moved into Laying Houses. Cocks and hens are kept in these houses and the eggs produced are fertilized. These eggs are supplied to Keystone Hatcheries in the Dargle area, as well as a number of broiler facilities.

The proposed houses will make use of some of the latest technology available for ventilation, feeding, watering, heating and cooling. Environmental conditions such as temperature and lighting plays a very important role in bird growth, development, and maturity. A constant or decreasing amount of daily light and heat (as occurs during the fall and winter months) will delay sexual maturity in growing birds. An increasing amount of light and heat (as occurs in the spring) will stimulate sexual maturity.

Chickens raised for eggs are called layers and are housed in layer houses. A layer house is poultry unit specifically designed to hold nest boxes or layer cages. The proposed layer houses will also make use of latest technology which will allow for automatic feed and water distribution and the control and optimization of environmental conditions. In addition, the layer houses will make use of automatic nest boxes, removing the need to manually collect eggs.

4. EXISTING AND PROPOSED INFRASTRUCTURE

An operational poultry facility currently exists on the property. Many of the services and infrastructure required for poultry production therefore already exist on the property.

4.1 Electricity

Electricity for the proposed expansion will be sourced from existing Eskom supply on the property. There will most likely be a need to upgrade the transformer.

A number of power lines are located in close proximity to the proposed houses and may therefore need to be relocated.

4.2 Sewerage

As part of the proposed housing, it will be necessary to establish ablution and shower facilities for the staff. No existing sewer reticulation exists in close proximity to the proposed development. Septic tanks will therefore be established for the treatment of grey water and wastes emanating from staff shower and ablution facilities. The suitability of the soils for subsoil disposal of wastes will be investigated and reported on in the Geotechnical Assessment.

4.3 Water

At present, water for the operational poultry facility is abstracted from a watercourse and treated at an onsite water treatment works (WTW). It is proposed that water for the proposed rearing house will be sourced from this existing supply. Water for the proposed new laying houses will be sourced from a different local stream, requiring the establishment of a new WTW.

Details regarding the volumes of water to be abstracted are not available at present. Information in this regard will be included in the Basic Assessment Report. In addition, details of the proposed method of sludge disposal from the new WTW will also be included in the Basic Assessment Report. The necessary permits for the abstraction of water (if necessary) will be applied for from the Department of Water Affairs (DWA) once the Environmental Authorisation Process has been completed.

The houses will be cleaned with the use of high-pressure washers. Wastewater generated by this activity will be directed into a drainage system associated with each house. The ultimate fate of this wastewater is not known at present. The need for a Waste Licence or a Water Use License (for the disposal of water containing waste) will be determined through the Environmental Authorisation Process.

4.4 Litter

Litter generated within the proposed new houses will be fed into the existing litter disposal system on the site; i.e. will be spread on agricultural lands or sold to local farmers as fertiliser, or sold to a commercial composter.

4.5 Mortalities

Mortalities from the new houses will be disposed of onsite in an existing mortality pit.

5. SPECIALIST STUDIES

The following specialist studies are anticipated:

5.1. Geotechnical Assessment

A specialist Geotechnical Assessment would be required to investigate the sub-soil conditions of the proposed development sites in order to inform recommendations regarding founding conditions, erosion control as well as the suitability and placement of septic tanks.

5.2 Stormwater Management Plan

The need for the compilation and implementation of a Stormwater Management Plan may arise in order to control the runoff of contaminated washwater from the new houses. The need for this plan will be evaluated during the Impact Assessment Phase of the process. Should the Plan be required, it will be drawn up by a suitably qualified Engineer and included in the Draft Basic Assessment Report where will be available for comment.

5.3 Heritage Impact Assessment

Comment will be sought from Amafa aKwazulu-Natali regarding the need for a Heritage Impact Assessment of the site. Should an assessment be required, an appropriately qualified Specialist will be employed. The findings, recommendations and a copy of the Specialist Report will be included in the Draft Basic Assessment Report.

6. GENERAL SITE DESCRIPTION

a. Land use and Vegetation

According to Mucina and Rutherford (2006), the proposed development site occurs within the Midlands Mistbelt Grassland (Gs 9) vegetation type. According to Camp (1999), the proposed development site falls within the Moist Midlands Mistbelt BioResource Group (BRG 5) and the Dry Midlands Mistbelt group (BRG 6). The vegetation within these groups is dominated by forb-rich, tall, sour *Themeda triandra* grasslands, transformed by the invasion of native Ngongoni grass (*Aristida junciformis* subsp. *junciformis*). Only a few patches of the original species-rich grasslands remain. For this reason, this vegetation group is classified as endangered and is considered one of the most threatened vegetation types in KwaZulu-Natal.

As described previously, the property is currently the site of an operational poultry facility. The existing poultry houses are located to the west of the rearing house sites and to the north-west of the laying house site. In addition, the project applicant also resides on the property.

The Ezemvelo KZN Wildlife MINSET Database was also interrogated. This map was produced using C-Plan software and represents the optimised solution required to meet the conservation targets of the features included within the plan. According to the database the proposed development sites fall within an area classified as Critical Biodiversity Area 1 Mandatory (previously called: Biodiversity Priority Area

1) (Figure 2). CBA 1 areas are identified as having an Irreplaceability Value of 1, representing the only localities for which the conservation targets for one or more of the biodiversity features contained within can be achieved i.e. there are no alternative sites available.

It must be noted, however, that the distribution of the biodiversity features is not always applicable to the entire extent of the Planning Unit (PU), but is more often than not confined to a specific niche habitat e.g. a forest or wetland reflected as a portion of the PU in question. In such cases, development could be considered within the PU if special mitigation measures are put in place to safeguard this feature(s) and if the nature of the development is commiserate with the conservation objectives. Obviously this is dependent on a site by site, case by case basis.

The sites proposed for development have been cultivated in the past. The laying house site has been planted as maize lands and the rearing house site has been planted with kikuyu pasture and utilized as grazing land. Limited natural vegetation occurs on or in proximity to the proposed development sites. It is not anticipated therefore that the development would have significant impacts on local biodiversity or conservation efforts.

In terms of surface water features, a number of small farm dams, wetlands and watercourses are present on the property. A small watercourse runs to the west of the rearing house sites and a separate watercourse runs to the east of the laying house site. The proximity of these watercourses raises a concern for contamination of surface water through the uncontrolled runoff of contaminated wash- and rain-water. This potential impact will be investigated and reported on in the Basic Assessment Report. Mitigation measures will be recommended and, if necessary, a Stormwater Management Plan will be drawn up for the development.

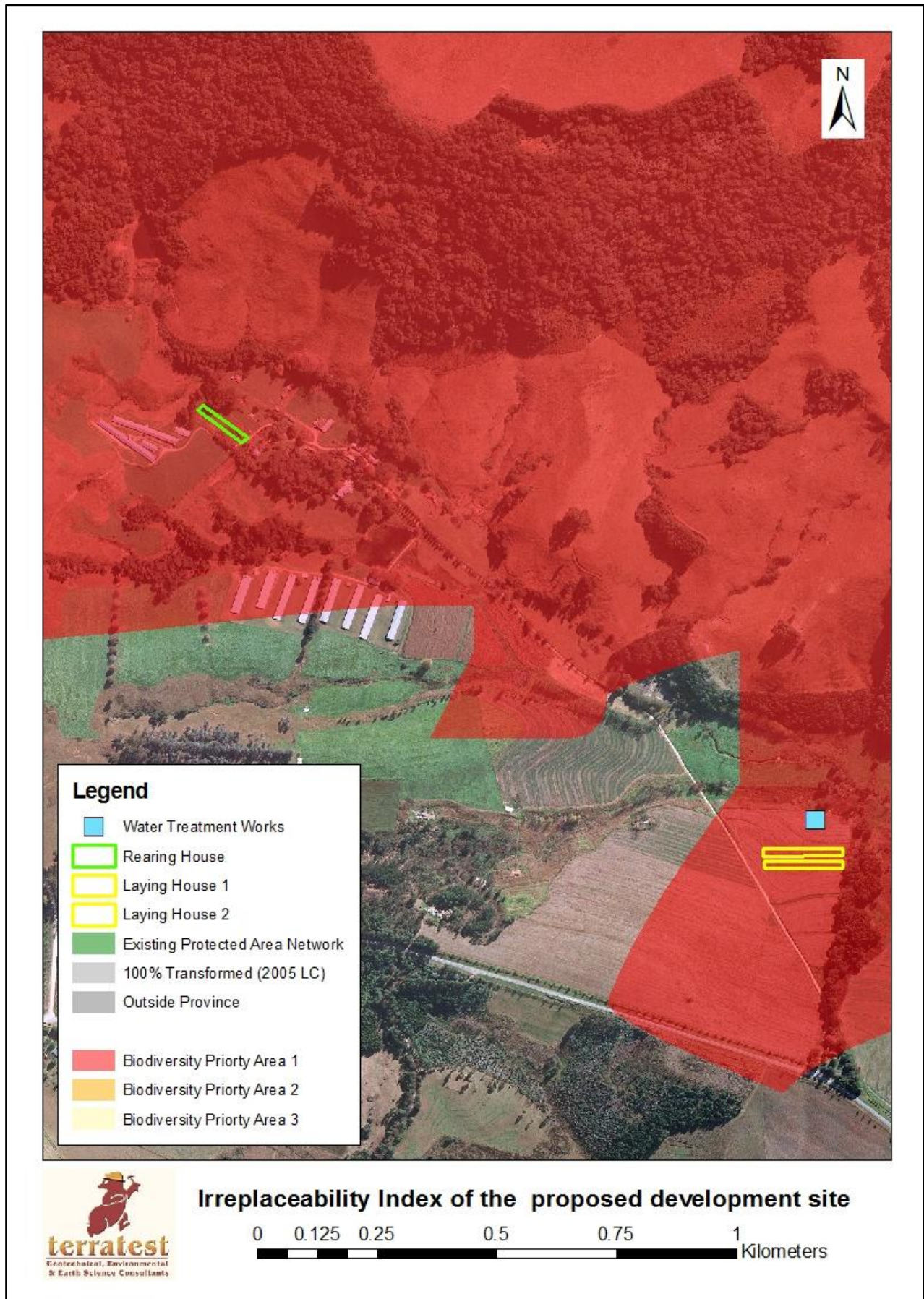


Figure 2: The irreplaceability index of the proposed development site

b. Heritage

According to the National Heritage Resources Act No 25 of 1999, provisions are made to protect national heritage and this forms an integral part of the environmental assessment process. In accordance with the National Heritage Resources Act No 25 of 1999, a comment will be obtained from Amafa regarding the need for a Heritage Impact Assessment.

c. Geology and Terrain

The geology of the site comprises apedal and plinthic soil forms derived mostly from the Ecca Group (Karoo Supergroup) shale and minor sandstone as well as less importantly from Jurassic dolerite dykes and sills.

d. Photographs of the site

Photo 1: View of the proposed Rearing House site, looking north-west across the site from the road towards the drainage line.



Photo 2: View of the existing rearing houses, located to the west of the proposed new rearing house site.



Photo 3: View of the proposed Laying House site, looking east from the road



Photo 4: View of the proposed Water Treatment Works Site.

7. ENVIRONMENTAL SCOPE OF WORK

The Basic Assessment process that will be followed is in accordance with the requirements of NEMA. The EAP is required to conduct the environmental application process and manage the public participation process, which is currently underway. Terratest (Pty) Ltd will perform the following:

1. Identify key stakeholders, authorities and municipalities, environmental groups and interested or affected members of the public, hereafter referred to as IAPs;
2. Compile a detailed Background Information Document (BID) for the proposed development, providing details to IAPs of:
 - a. The listed activities that trigger the Environmental Authorisation process;
 - b. The scope of work;
 - c. The locality and current land use at the site;
 - d. A detailed site description;
 - e. The Basic Assessment process to be followed; and

- f. The opportunity for IAPs to comment on the project.

3. Advertise the environmental application in a newspaper applicable to the region, namely: The Witness;
4. Place a poster/posters on the site;
5. Obtain landowner's consent (if necessary);
6. Attend Public Liaison Committee (PLC) meetings and workshops where necessary;
7. Host a Public Open Day, if necessary, providing details of issues identified by the EAP, stakeholders and IAPs;
8. Record all comments of IAPs and present such comments, as well as responses provided by Terratest, in a full Comments and Responses Report, which will be included in the Basic Assessment Report that will be submitted to the DAEA; and
9. Circulate all IAP comments to the project team.

The Basic Assessment Report will be made available to all relevant stakeholders and registered IAPs for further comment, before being submitted to the DAEA.

8. HOW DO I PARTICIPATE?

Every proposed development has the potential to significantly affect the natural and social environments, both at, as well as surrounding the proposed site. For this reason it is imperative that you as a stakeholder or an interested and/or affected party (IAP) comment on the proposed project and **highlight issues or concerns** that you feel need to be considered during the proposed planning and implementation process. Should you wish to register as an IAP or should you have any comments regarding the proposed development, please **state your interest** in the proposed development along with any **comments or queries** you may, on the form provided below. Please return these comments, via email, fax or post to details provided, before the **26 July 2013**. Alternatively, the Environmental Assessment Practitioner listed below can be contacted directly.

**PROPOSED EXPANSION OF POULTRY LAYING AND REARING FACILITIES ON THE
REMAINDER OF THE DARM DARGLE NO. 913, UMNENI MUNICIPALITY: BASIC
ASSESSMENT - PUBLIC PARTICIPATION PROCESS**

REGISTRATION FORM
Name: Surname Address: Postal Code: Tel No: Fax No: Cell No: e-mail :
Please state your interest in the proposed project.
Comments: (add extra pages should you need)
Do you require any additional information?
Other parties which you think should be included in the process:
<i>Your comments are highly appreciated, and will be included in the final report to be submitted to the decision-making authorities.</i>
<u>PLEASE RETURN NO LATER THAN 26 JULY 2013 TO:</u> Sarah Baxter c/o TERRATEST (Pty) Ltd PO Box 794 Hilton 3245 Tel: 033 343 6789 Fax: 033 343 6788 email: baxters@terratest.co.za