
MANURE & NUTRIENT MANAGEMENT PLAN

Erection of an 8,000 Bird Extension
to the existing Free Range Poultry
Unit at
Gwynfaes
Rhandirmwyn
Llandovery
Carmarthenshire
SA20 0NG

Prepared for AS, S & ME
Reah



land & property
professionals

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1. INTRODUCTION

The Manure Management Plan presented has been prepared to accompany the planning application of the farming business AS, S & ME Reah.

The Water Code states that, to reduce leaching losses from manures, you should not apply more than 250 kg per ha of total nitrogen in organic manures in any 12 months. However, these are guideline levels only and if a FACTS trained advisor can show that the crop requirements are higher the rates can be increased. The farm is not within a Nitrate Vulnerable Zone.

A total land area of 49.245 hectares of owner-occupied land is farmed. Additional land receives applications of manure in line with the agreement at appendix 2 to this Manure Management Plan. **In addition to this in early 2019 Messrs Reah have reached an agreement with an Agricultural Contractor. The agreement shall see the contractor take all of the poultry unit off farm. The manure shall then be transported in a sheeted trailer by the Agricultural Contractor, in his business to be applied to pasture land on farm as required and incorporated into arable land during cultivation.**

2. PROPOSED DEVELOPMENT AND FARM STOCKING

The proposed development is for an erection of an 8,000 bird free range poultry unit extension at Gwynfaes, Rhandirmwyn. The partnership presently only has free range poultry unit on farm, the increase proposed will take total numbers on farm to 30,000.

3. LAND AVAILABLE

We have analysed the Environment Agency flood plans for the land available for spreading of manure, and at appendix one of this report are found detailed maps annotating spreading areas.

4. STORAGE OF MANURE

All solid manure produced within the poultry unit will be removed at the end of the cycle and will be spread upon the land at Gwynfaes and Clynmawr or shall be stored in one of the two existing manure stores upon farm.

5. MANURE APPLICATION

A Manure Management Plan has been produced at Appendix one. In addition to identifying no-spread areas, high risk areas and those areas of the farm that are suitable for applications of manures for most of the year, the plan should also assess the amount of land available to take the manures produced. The map should be colour coded: -

- | | |
|----------|---|
| Red = | No-spread areas, e.g. yards; within 10 metres of a watercourse or 50 metres of a borehole, spring or well used for drinking or parlour washings. Or Areas not normally used for operational reasons but may be brought into use in the future. |
| Orange = | Very High Risk. Steeply sloping fields of gradients 1 in 7 to 1 in 5; fields at risk of flooding; sandy or shallow soil over fissured rock; fields where drains have been installed during the past 12 months; poorly drained or waterlogged land; severely compacted soils, etc. |
| Yellow = | Moderate Risk. Slopes between 1 in 14 to 1 in 8; land sloping towards watercourses; imperfectly drained land. |

Hatched Dark Green = Lower Risk with Caution. This land may have manure applied to it but care must be taken prior to application of manure, that no flood warnings have been raised or that excessive rainfall is forecast within 48 hours of the proposed application.

Green = Lower Risk. Remainder of land upon which manures are applied and which has not been subsoiled or mole ploughed within the past 12 months.

The applicant has assessed his proposals against the above guidance of the Welsh Government.

FIELD NUMBER	FIELD SIZE (HA)	SPREADABLE AREA (HA)	NON SPREADABLE AREA (HA)
SN7741 8319	1.68		1.68
SN7741 7805	1.89		1.89
SN7741 8016	0.16		0.16
SN7741 8612	0.32		0.32
SN7741 8728	0.18		0.18
SN7741 9024	0.59		0.59
SN7741 9721	0.92		0.92
SN7741 9729	1.35		1.35
SN7741 9800	3.30		3.30
SN7841 0717	2.92		2.92
SN7841 1711	2.89		2.89
SN7841 1955	1.28	1.27	0.01
SN7841 2437	5.41		5.41
SN7841 2957	2.01	2.00	0.01
SN7841 3609	2.84		2.84
SN7841 4120	3.38	3.38	
SN7841 4160	2.34	2.34	
SN7841 4656	0.22		0.22
SN7841 5128	5.11	5.11	
SN7841 5746	5.30	5.30	
SN7841 6518	0.23		0.23
SN7841 6555	3.86	3.86	
SN7841 7644	3.02	2.98	0.04
	51.2	26.24	24.96

37.5 acres or 15.17 hectares of the above land is required for the bird range area, therefore reducing the total spreadable area to 26.24 hectares.

The fields within the range area are (highlighted yellow above);

7805
9800
1711
0717
8612
3609
2437
9024
9729
8728
9721

Highlighted yellow is 22.61 hectares of land. 7.44 hectares in excess of required amount. The Range area is moved around in rotation per flock, so total will always be 15.17 hectares.

The minimum amount of land needed for spreading slurry and manure is calculated in table 1 below detailing the nitrogen available and nitrogen produced:

Table 1 – Total N Calculation

Gwynfaes is not located within a Nitrate Vulnerable Zone, however in utilising the Nitrate Vulnerable Zone Wales Farmers Workbook, 2014 Edition the farm figures for nitrogen produced per annum are shown below. These figures are used as the most up to date Nitrogen figures available in Wales. The

minimum amount of land needed for spreading slurry and manure is calculated in table 1 and is based upon the housing period of the livestock.

The Poultry shall be housed within the unit for the entire year but shall be grazing the poultry unit each day in rotation.

Type of Livestock	Number of Stock	Total produced each unit stock (kg/annum)	N by of	Total produced per annum	Total N produced by type of livestock whilst housed
Poultry	30,000	0.55		14,142	14,142
TOTAL					14,142

Total Land Farmed (including range area)	51.2 hectares
Total Land available for Spreading	26.24 hectares
Total Nutrients Available	6,560 kg N
Total Nitrogen produced on Farm	14,142 kg N
Difference between Nitrogen	- 7,582 N

There is not enough land for the application of manure therefore some of the nitrogen produced on farm shall be applied to the farm land at Gwynfaes in line with the Codes of Good Agricultural and Environmental Condition, Cross Compliance Regulations. Manure will also be sold to the adjoining farm Clynmawr as detailed in appendix two to this manure management plan. With the additional land at Clynmawr there is sufficient land for the application of manure. Clynmawr extends to some 166.94 hectares in total. **Manure will also be sold to an Agricultural Contractor for use within his business. The manure shall be applied to the Contractors clients farm land being both pasture land and incorporated into arable land. Having discussed the proposal at great length with NRW and as a family the Reah's will now be asking the Contractor to take 100 per cent of the manure off farm.**

The table above page shows the total nitrogen produced over the housing period.

Good agricultural practice publications advise that a maximum of 250/kg a hectare of total nitrogen is applied to the ground through manures.

6.0 SPREADABLE AREA

The total land available for spreading manures is 26.24 hectares. Manure shall be spread directly onto this land at Gwynfaes and Clynmawr and **sold off farm to the Agricultural contractor** or stored in the existing manure stores on farm.

The dirty water from the proposed development will be channelled via dirty water drainage channels to an underground dirty water tank with a capacity of 25,000 litres (it will be a modular tank so that should greater volumes be required additional storage can be added). During wash down periods the tank will be fully utilised, as a contingency a pump shall be utilised upon the tank that will pump the dirty water to a pasture field on farm which is within the manure management plan. The pump shall then be connected to a rain gun and it shall be applied to the field which is a low risk field, being flat and surrounded by existing hedgerows. The field number is SN7841 171. Whilst it is part of the range area, it will be used in rotation and can be utilised for the application of dirty water. Wash down only takes place once every 14 months therefore this is not a regular occurrence. In order to minimise the volume of dirty water the

original proposal to have concrete veranda's outside of the popholes will be removed and stone places along the length of the building.

7. MANURE STORAGE

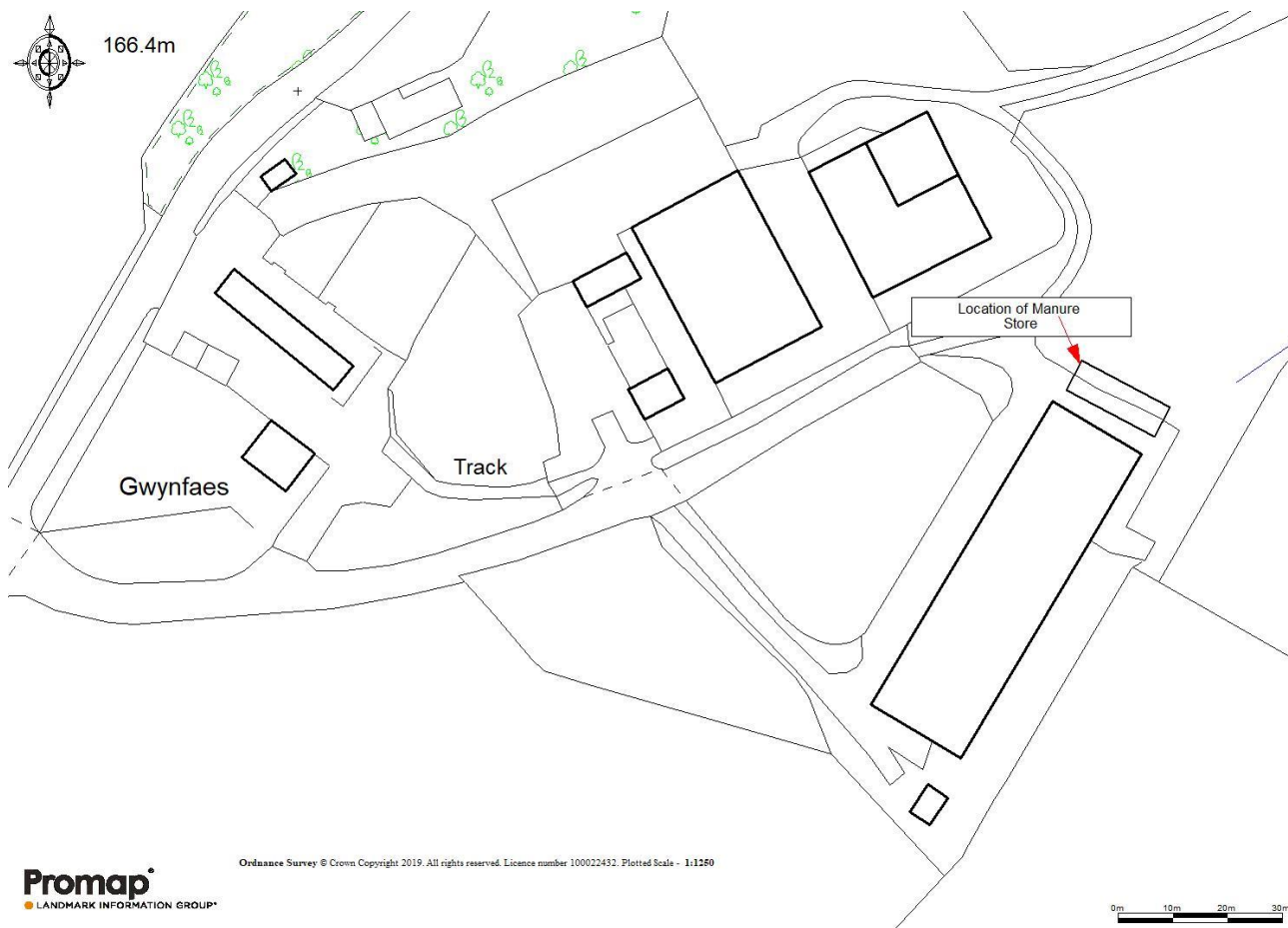
Existing Manure Store

Manure will be stored in the two existing manure stores upon farm.

To the west of the poultry unit at Gwynfaes, is a purpose-built poultry manure store, to which manure is carried directly from the existing poultry units, therefore ensuring that the manure is dry and friable limiting any odorous gasses. The unit is shown in the image below. The unit has one solid side and two gable ends which allows manure to be protected from any rainfall. The building is divided into sections within which the manure can be stored;



The manure store (A) is shown on the plan overleaf;

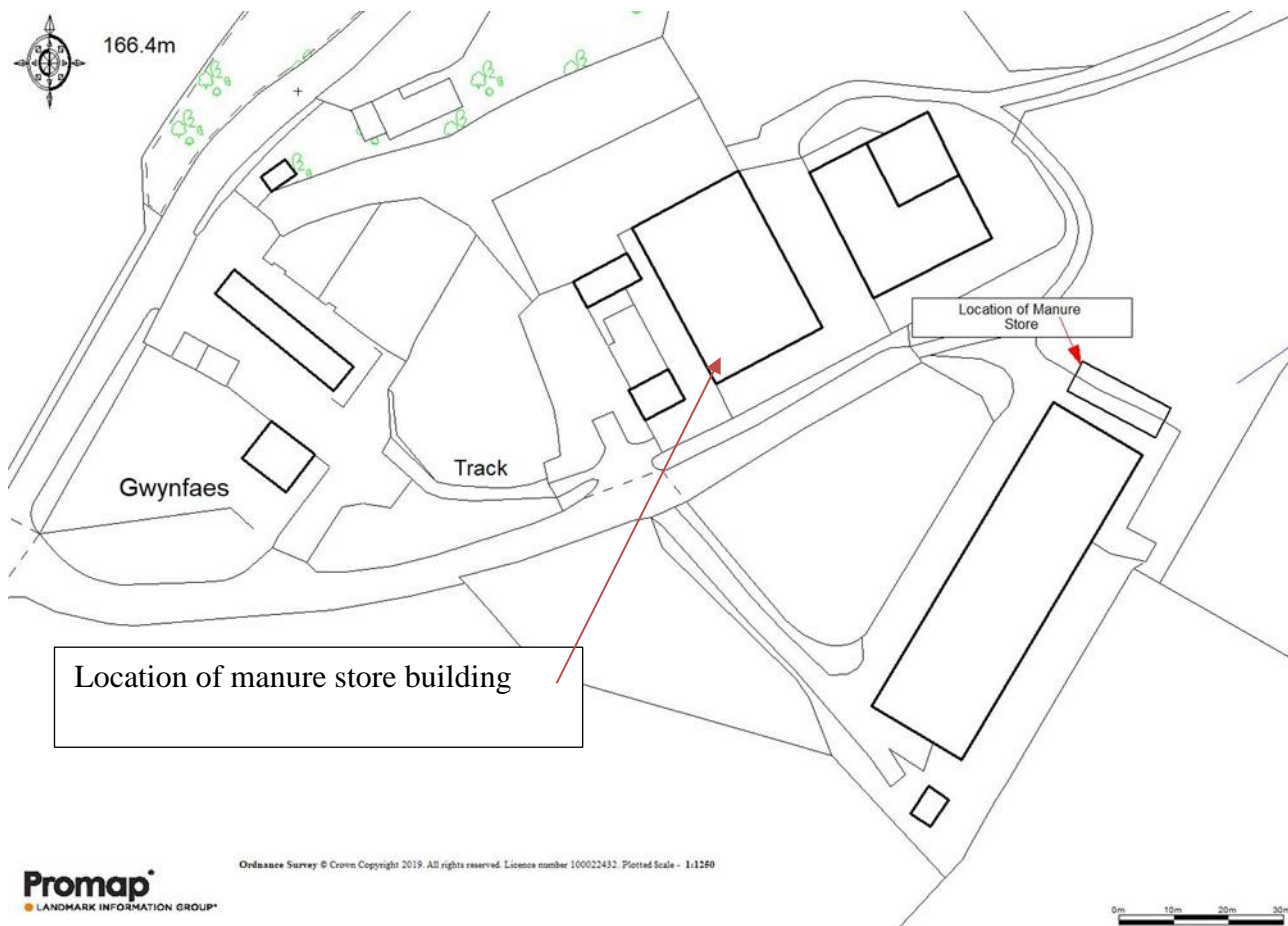


The manure store is 18.3m x 6.1 metres with a 1.83 metres wall.

The second manure store on farm (B), proposed to be utilised is an existing farm building, formerly the silage pit on farm. The building is 22.875m x 13.725m with a concrete wall to 3.66m. The building is shown in the photograph below;



The location of the building is on the annotated plan below;



The applicants are upgrading the building and will be using concrete walls to create a solid gable end.

Manure will be stored in accordance with SSAFO (Water Resources Act (Control of Pollution) (Silage Slurry and Agricultural Fuel Oil) (Wales) Regulations 2010).

8. “DIRTY” YARD AREAS

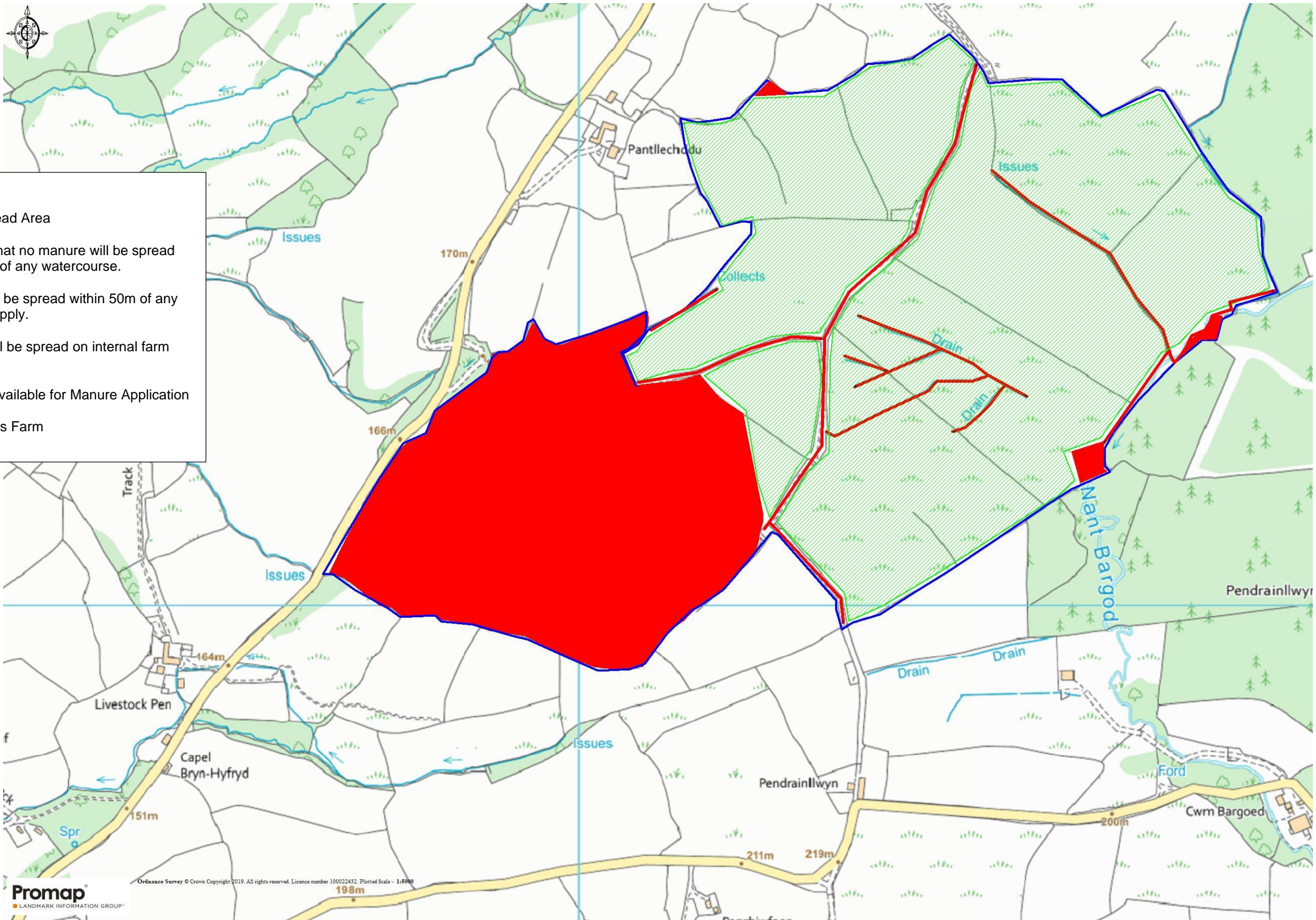
“Dirty” Yards

The “dirty” yard areas on the farm will be kept to a minimum. This is due to the manure all being contained in the poultry unit and removed at the end of the fourteen month cycle together with the hardcore area to the front of the poultry unit. Messrs Reah will require all areas to be clean outside the building as they will be producing food products within the unit.

9. CONTINGENCY PLAN

The applicant already has two contingency plans in place being the land at Clynmawr and also selling to a contractor for applying to other farmland. If manure cannot be applied to Gwynfaes more manure will be sold to the external contractor.

**IN THE EVENT OF ANY
POLLUTION INCIDENT
OR TO
PREVENT POTENTIAL POLLUTION
CALL
NATURAL RESOURCES WALES
03000 653 000**



KEY

Red = Non Spread Area

It is confirmed that no manure will be spread within 10 metre of any watercourse.

No Manure is to be spread within 50m of any private water supply.

No Manure shall be spread on internal farm tracks.

Green = Land available for Manure Application

Blue = Gwynfaes Farm



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The Property Experts

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JOB:	Proposed 8,000 Bird Poultry Extension
CLIENT:	AS, S and ME Reah
TITLE:	Manure Management Maps
LOCATION:	Gwynfaes, Rhandirmwyn, Llandovery
SCALE:	Identification Purposes Only
DATE:	Aug-19
DRAWING NO:	MMP
DRAWN BY:	GEL

Poultry Manure Agreement

Supplier:- M.E. Reah, Gwynfaes, Rhandirmwyn, Llandovery, SA20 0NG.

Receiver:- E. Jones, Clynmawr, Cilycwm, Llandovery, SA20 0NG.

This agreement covers the poultry manure removed from 2 poultry units one of 16000 birds and one of 6000 birds. It also covers a new unit planned for 8000 birds.

The 16000 bird unit is multi-tiered with manure extraction taking place continuously and stored in 2 covered areas awaiting removal for subsequent spreading on the land.

The 6000 bird unit is a flat deck with the manure removal taking place at the end of each flock cycle. This will be the case for the planned 8000 bird unit.

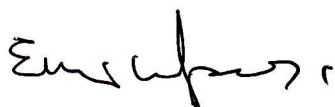
The receiver undertakes to remove the manure as required and spread it on the land appropriately.

Notes for spreading:-

- Grassland used for spreading should not be used for 9 weeks for grazing.
- Manure should not be spread near water courses.
- The manure removed from the 6000 and planned 8000 unit each need to be spread over approximately 50 acres. This area can be reduced if it is to be spread over ground that is subsequently ploughed.
- The manure removed from the 16000 unit can be spread over 30-40 acres if grassland as it is being spread 4 to 5 times per year.

This agreement is for a 3 year period from the date it is signed to be renewed as needed.

Signed: E. Jones



Dated

2 Apr 18

Signed: M.E. Reah



Dated

02 APR 18

Letter of Intent

Bowketts Farm Supplies agrees the intent to take 40% of the poultry manure produced at Gwynfaes, Rhandirmwyn Llandoverly.

It may be utilised in a variety of locations.

40% will be the manure produced by 12000 hens once the additional planned poultry unit is established.

Until then Bowketts Farm Supplies will take a smaller amount as it comes available.

T. Bowkett
Bowketts Farm Supplies
Three Cocks
Brecon
Tel 01497 847252

Signed

T. Bowkett

A handwritten signature in black ink, appearing to read 'T. A. Bowkett', written over a horizontal line.

24 April 2019