

Item 6 - Report on Planning Applications

Application Ref: NP/14/0311

Application Type	Full
Grid Ref:	SM89153600
Applicant	Mr D Harries
Agent	Mr A Lawrence, Reading Agricultural Consultants
Proposal	Proposed cattle accommodation building, associated yard area & slurry lagoon
Site Location	Velindre, St Nicholas, Goodwick, Pembrokeshire, SA64 0LJ
Case Officer	Liam Jones

Summary

At the Development Management Committee meeting on 10 September 2014 members resolved to undertake a site inspection to view the site at Velindre Farm and its surroundings. In addition members asked that the applicant supply further information providing more details on slurry spreading proposals with a management plan as well as information on traffic movements.

The site inspection took place on 22 September 2014 and a copy of the report of that visit is provided in your papers. The applicant supplied further information appertaining to the proposals on 22 September 2014. The information provided is attached in your papers and consists of the following documents:

- Additional Information for Development Management Committee (September 2014)
- Slurry Spreading and Water Pollution Management Plan (September 2014)
- Line of Sight Diagram (RAC/6199/9)
- Draft Landscaping Plan (RAC/6199/10)
- Draft Landscaping Plan Cross-Sections (RAC/6199/11)

Further information on traffic movements was received on 3 October 2014 in the following document:

- Additional Traffic Information (October 2014)

Consultations have been undertaken with Pembrokeshire County Council Highway Authority and Natural Resources Wales and officers are currently awaiting responses. Any observations received will be reported verbally at the committee meeting.

In terms of the information provided the report concludes that there is sufficient land on which to spread slurry in line with agricultural good practice in that the farm has 403ha of land available where the minimum area required is 395ha (in line with good practice of 250Kg/Nitrogen(N)/ha/year). In relation to slurry movements on site the applicant's submission concludes that there

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would be 75 fewer traffic movements a year after construction of the slurry lagoon (1,515 reduced to 1,441). The report put forward also contends that the independent report carried out by William Waterfield is made on a number of unsubstantiated assumptions.

Further information on overall traffic movements has been provided in a separate document appended to your agenda. This document sets out that there are currently 6,348 vehicular movements a year at the site whereas the proposal will increase the number of overall movements to 7,082.

In addition to the reports three further plans have been received as noted above. These plans provide details of additional landscaping proposed for the site to take the form of proposed tree planting. In addition details of the proposed levels and line of sight diagram have been provided. Whilst additional tree planting at the site will prevent some close range views of the slurry lagoon it is considered by officers that the change in site contours coupled with the topography of the site will not prevent all views of the site particularly from the Coast Path and from the east near St Nicholas. The appearance of the landscape will change dramatically as a result of this proposal and that change is considered to be harmful to the special qualities of the National Park which the Authority is charged with protecting. As such the recommendation of refusal remains in line with the report presented to the committee on 10 September 2014 and appended below for reference.

4 No. additional letters of objection have been received at the time of compilation of this report on 7 October 2014.

Report from 10 September 2014 Committee Meeting

Summary

The application is reported to the Development Management Committee as it is a Major Development application.

The application proposes the erection of a cattle accommodation building with associated yard and the construction of a slurry lagoon. The proposed development would allow the farm to expand its milking operation from 540 upto 860 milking cows.

Although offering the economic benefit of one additional full time role and enhanced output at the farm the intensive nature of development is considered to represent an inappropriate and harmful industrial form of development on land within the open countryside within the National Park. The proposed development by reason of its very form, character and scale will erode the special qualities of the National Park and will not be compatible with the strategic aims of conserving or enhancing the natural beauty, wildlife and cultural heritage of the Park, and the public understanding and enjoyment of those qualities.

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The cattle accommodation building and slurry lagoon will expand the site's visibility and result in an unacceptable loss of a sense of remoteness and tranquillity, will not protect the pattern and diversity of the landscape, will be insensitively and unsympathetically sited within the landscape, will introduce and intensify a use which is incompatible with its location, and will fail to harmonise with or enhance the landform and landscape character of the National Park. In addition to these concerns the slurry lagoon by virtue of its form, scale and siting will have an adverse impact upon the amenities of neighbouring occupiers and visitors to the area due to the development consisting of a use inappropriate for where people live and visit, being of a scale incompatible with its surroundings and being visually intrusive.

If planning permission were to be granted for the scheme in the face of this conflict, the harm would need to be clearly outweighed by other material considerations, as explained in S38 (6) of the Planning and Compulsory Purchase Act 2004. There are advantages to the proposal that weigh in favour of the grant of planning permission and these advantages include the fact that the proposed development would create additional employment, both permanently on the farm, and during the temporary construction phase. However, the benefits of the scheme are considered to be far outweighed by the harm to the special qualities of the National Park in this instance.

In summary it is concluded that the development fails to comply with the requirements of policies 1, 8, 15, 29 and 30 of the Pembrokeshire Coast National Park Local Development Plan and National Policy in the form of Planning Policy Wales (Edition 7, July 2014) and is recommended for refusal.

Consultee Response

Pencaer Community Council: No adverse comments - Due to declarations of personal and prejudicial interest from some councillors the Council was not quorate for this item of business on the agenda and were therefore unable to make any decision or comment.

Head of Corporate Property: No objection

Natural Resources Wales: No objection - We have considered the plans submitted in support of the above application and have no objections to the proposed development, however we do wish to make the following comments.

The new slurry lagoon must be designed to meet the requirements of The Water Resources (Control of Pollution) (Silage, Slurry and Agriculture Fuel Oil) (Wales) [SSAFO] Regulations 2010. The SSAFO Regulations 2010 require all installations to be constructed with a durability life of at least 20 years. Installations should not be constructed, silage must not be made, and silage, effluent, slurry or fuel oil must not be stored within 10 metres of any inland freshwater or coastal water. We must be informed in writing 14 days before bringing any new substantially altered or enlarged silage, slurry or agricultural fuel oil store into use. We note that it is intended to utilise a clay liner for the earth bank lagoon. We request that a copy of the clay content analysis is submitted for both our records and the planning file. Further

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information on the requirements of the SSAFO Regulations is contained in the Welsh Governments SSAFO Guidance Notes for Farmers. The minimum required slurry storage capacity under the SSAFO Regulations 2010 is 4 months. The farm will exceed this requirement and have six months capacity.

PCC - Ecologist: No objection - a desk top assessment has found that there is a low likelihood of protected species being found at the development site or that there would be any adverse impact on the habitat or species as a result of the development.

PCC - Transportation & Environment: No objection - subject to conditions
Access Officer: No objection - subject to informatives.

PCC - Head of Public Protection: No objection - The proposed lagoon has been designed to comply with the relevant legislation/guidance. The nearest receptors are approximately 260 metres from the lagoon. The large area of spreading available to the farm and the proposed increased storage capacity allows flexibility for the spreading operations. Heaps of solid material from the dairy operations will not be located within 200m of any potentially affected property.

Dyfed Archaeological Trust: No objection

National Trust: I write in relation to the proposed agricultural developments at Velindre Farm Nr St Nicholas. The National Trust owns and manages some 400 acres of land adjoining Velindre at Reseissyllt and Tregwynt, running down to Abermawr beach. The land is of very high landscape and conservation value and contributes greatly to the unspoilt character of the area. Having considered the application I would like to express concerns that the development will lead to an increase in the number and size of traffic movements on the roads due to the dispersed nature of the applicant's holding. In an area where minor roads with their high banks and narrow nature help define the character of the area, our concern would be that more regular movements of even larger agricultural vehicles will have an erosive effect on the natural aspects of this part of north Pembrokeshire, and the enjoyment of it by visitors and local people alike

Public Response

The application was advertised in accordance with The Town and Country Planning (Development Management Procedure) Order 2012 by display of site notices initially on 20 June 2014. Following weather damage to the notices additional notices were placed at the site on 4 July 2014. Further to this the application was advertised in the local press on 20 June 2014 and letters of notification were sent to neighbouring occupiers on 20 June 2014.

The applicant submitted some additional information on 22 July 2014 which included plans showing alternative sites, pipeline routes, photomontages and a line of sight diagram. Letters of consultation were sent to neighbouring occupiers informing of the additional information. The applicant's agent was informed of a discrepancy on the drawing (scale noted as being 1:200 and not 1:500) and information in the submitted report noted an incorrect measurement of the lagoon which was corrected in details supplied on 1

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August 2014. No further consultation was undertaken on this later correction due to no new or changed proposals being submitted and the relevant information was placed on the Part 1 public file on receipt of 1 August 2014 and was available for public inspection.

Up until production of this report on 18 August 2014:

7 No. letters of support have been received in support of the scheme whilst a petition was received on 15 August 2014. The petition is titled 'Pencaer Farmers', with the statement *"We the undersign support Pencaer Farmers in their endeavours to produce our food. We support the Harries Family at Velindre as we know they will do all they can to mitigate problems as they arise to the best of their ability"* and contains 218 signatures.

56 No. letters of objection have been received. Where a person has submitted more than one letter or email this has been counted as a single objection.

In terms of the letters of support and objections to the scheme received it is not possible to list or summarise all the individual letters of correspondence received. Full copies are, however, available for inspection on the planning application file. Notwithstanding this a selection of the both the support and concerns raised from third parties are as follows:

Letters of Support

- "I believe that the impact of a large slurry lagoon will not have a huge impact on the surrounding area. I believe that the improved containment of slurry will lesson the possibility of contamination to the local waterways. Having a large store will enable Mr Harries to time his spreading operation, to benefit local conditions. Slurry is a natural animal by-product and is a valuable source of fertilizer for farmers so that they can use less of the bagged product, that has to be hauled in from abroad. These days there are products that can be added to slurry which reduces the odour that so many people find offensive. We are keen for our young people to come back and live in Pembrokeshire and create business opportunities so that the county becomes more sustainable, we should be encouraging young entrepreneurs."
- "The Harries family have owned and farmed at Velindre for 90 years, and during that time have had to expand and change with the economic times in order to stay viable as have most other farms and businesses. Their animal husbandry is excellent, being continually monitored by a local veterinary practice. The addition of a slurry lagoon will remove the likelihood of spills, and will be built and lined to an extremely high standard."
- "The site appears to have been selected because it is: 1. The furthest possible distance away from any watercourse, with the lie of the land also providing a natural barrier to any potential escape of slurry. 2. Has been deliberately moved as far as possible away from the residents in

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St Nicholas, to minimise any potential nuisance. 3. Of such a size as to enable the farmer to spread slurry on his land when weather conditions permit, and when good husbandry demands. This will in turn reduce usage of artificial fertilizers, reduce any risk of run off (by having to spread in adverse weather conditions). 4. Placed in the centre of the farm, thereby reducing the need for tractors and slurry tankers having to travel on public roads to reach some parts of the farm.”

- “In the current era, economic pressures have forced businesses that produce milk to grow larger if they are to make a profit and a living for their family. Units of this type can provide a high standard of care for their animals as they can pay for the expertise available from veterinarians and whole food providers. Providing permanent shelter to most of the cattle may reduce the likelihood of a cattle acquiring an infection such as ticks in wild animals. Therefore reducing costs to the government and us the taxpayers.”
- “Providing a slurry pit which has been carefully planned out in the fields from the river is a significant improvement and will take away the risk of accidental spillage into the river near the existing slurry tank. This will also remove the existing system of spending long hours transporting the slurry nearly every week to stores and other farms.”
- I believe that this proposal, meets the requirements of the Minister for Natural Resources Wales to make agriculture more self-sufficient. The wall of the new pit will, very quickly be obscured by gorse and many other plants. Note from the significant lake half a mile or so from the site to the north of the application site, which is almost out of sight and shelter for many birds and so on. If there is weight to be placed on the applicant to take notice of the benefits of shooting the slurry into the land, instead of spreading it on the surface, I and many of the neighbours would appreciate the improvement”.
- “You will be aware that the farming industry continues to face formidable challenges with market volatility, high input prices and increasing regulation. In response to these challenges farmers have to grow and adapt their businesses so that they can remain viable. Our member is no exception; this proposal is required to meet the demands of a growing business. Since taking on the running of the farm from his father Mr Harries has grown the milking herd to its present herd size of 475 dairy cows and the plan is to further increase to 860 cows in the coming years. With this development Mr Harries has invested heavily in a modern and state of the art dairy unit which encompasses innovation and technology whilst ensuring the highest standards of animal welfare are maintained. Indeed I was privileged to recently visit the farm and see first-hand the standard of management and I must comment that the standards of animal management were amongst the best I have ever seen. My visit coincided with an open day and I must stress that the feedback I have received from the event and read of

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social media has been extremely complimentary.”

- “The development of this unit is reliant upon the need to ensure adequate slurry storage and as such the proposal for 14,800 cubic meter store will ensure 4 months storage for a 860 cow herd. The development of the slurry store will have additional benefits such as reducing levels of farm traffic (slurry tankers) on the road as slurry will be pumped directly to the land from the new store and will be placed further away from the nearest conurbation than the present arrangement.”
- “There are many reasons why it is essential that manures and slurries are returned to the land. Manure plays a key role in the physical, chemical and biological processes which underpin soil health. It builds fertility by providing a valuable source of organic nutrient which allows farmers to reduce their reliance on artificial fertilisers, thereby reducing the carbon footprint of food production. The return of the manure or slurry aids soil structure and provides habitat for valuable soil flora.”

Letters of objection

- “Pembrokeshire Coast! National Park!’ These words scream unspoilt countryside, fresh air, beaches, healthy living. An attraction for all! Residents and visitors do not want to smell and breath toxins from a ‘Slurry Lagoon’. The words alone make you feel nauseous. We are parents that want to protect our children and the environment matters! Visitors will not want to visit a place with this development therefore affecting business to holiday cottages. Traffic flow of HGV will inevitably grow therefore producing noise, extra pollution and dangerous driving conditions as narrow lanes are the main route”
- “We visit Pembrokeshire, staying near to the proposed development, every year. We come for the beauty of the landscape, its unspoilt wildness and its peaceful atmosphere. Of course, this is also a landscape in which people live and in which agriculture is practised and we have noted that these are largely in harmony with and complement rather than disturb the setting. We are horrified, therefore, to learn of the application to develop such a large scale, “industrial” farm within the area. The proposal is out of keeping with the context and indeed with the policies of the National Park as we understand them.”
- “Allowing such industrial scale development would be totally contrary to the aims of Pembrokeshire Coast National Park which is charged with ‘keeping the Park special now and in the future’. In particular, Policy 8 refers to ‘The sense of remoteness and tranquillity is not lost and is wherever possible enhanced’. The existing activity at Velindre, with 540 cows, together with the haulage of materials to and from outlying land , is already having a noticeably detrimental effect on the environment in this area of the Park; further expansion to 860 cows would have the potential to threaten the integrity of this beautiful and sensitive part of

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Pembrokeshire.”

- “There are several major concerns, including the impact of increasing numbers of large vehicles sharing narrow lanes with other users. Another concern is the guarantee of safe management of such large quantities of slurry close to a water course”
- “This unique, remote and beautiful Pencaer peninsula with an abundance of wildlife has limited narrow roads, with very few passing places and derives much of its income from tourism which will be adversely affected by the siting of such an industrial scale dairy farm”
- “The slurry spreading and activities at the slurry lagoon will exacerbate protracted periods of unpleasant smells and flies affecting the local community’s health and pleasure in living there”
- “It is hard to believe that this is a consideration for granting planning permission so close to the coast path, peoples homes and in the national park!”
- “The inevitable problems caused by large vehicles on the narrow roads taking feed in and milk out with be intensified. The risks of a huge slurry pit in the area raises fears of pollution and the inevitable odour problems”
- “What is the likelihood of public nuisance in the form of odours being created by a large slurry lagoon? The area is very windy and so the odours could effect a large area. Will flies be attracted to the lagoon and potentially spread disease?”
- “The farm development is within the national park, near to a SSSI, is close to a river that flows down to Aberbach and the beaches of Aberbach and Abermawr. We are concerned that this area should remain protected. Slurry lagoons do get damaged and the consequences of this could be devastating for local wildlife. We understand that a leak alarm could be installed but how much pollution would escape before any leak could be fixed? Although we realise that the aims of slurry lagoon is to hold the slurry until suitable times to spread, we are concerned that the increase in cattle numbers will see an increase in slurry spreading on the adjacent and rented fields and could lead to the problems associated with nitrate pollution into the water courses of the area”
- “This is an industrial scale agricultural proposal with vast sheds and a vast slurry lagoon totally out of place in a sensitive National Park environment”
- “The position of the proposed slurry lagoon would be visible from a number of public vantage points and would be less than 150m from a

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public footpath which is used by a considerable amount of visitors who wish to gain access to The Wales Coast Path. That part of the pedestrian's journey will be extremely unpleasant and could potentially be injurious to personal health and wellbeing."

- "Aside from the moral issues around keeping cows indoors with little freedom to move, there are several major concerns including the impact of increasing numbers of large vehicles sharing very narrow lanes with other road users and the safe management of such large quantities of slurry close to a water course"
- "An industrial farming enterprise such as presently exists at Velindre Farm should have no place in a National Park and the new proposals would only make matters much worse. Allowing such an industrial scale development would contravene the aims of the Pembrokeshire Coast National Park which is charged with... 'keeping the Park special both now and in the future'."
- "As 'sensitive receptors' to this planning application, we, as joint owners of Velindre West, make, objection to aspects of this application in the strongest possible terms in that it would adversely affect our views, disturb our peace and tranquillity through increased volumes of traffic both on the lane and the track/coastal path immediately adjacent to our property at various times of the day and night and generally affect our right to an undisturbed, peaceful and quiet existence as we, or anyone else would expect within the Pembrokeshire National Park"
- "Whereas the applicant has stated that certain landscaping will take place, it will be very visually intrusive from Velindre West which faces directly onto the proposed slurry lagoon site and is higher than the site."
- "The unsympathetic part is that odour will be created. Later on in the application, the applicant says that Velindre West would not be affected. I smell slurry from a farm that is over 2 miles away from where I live, never mind 290 metres, and it is quite insulting and patronising to say otherwise, especially as the prevailing winds blow directly from the proposed slurry lagoon towards Velindre West and are more usually than not, very strong. My understanding is also that the slurry pit has to be 'stirred' on occasions which increases the odours"
- "If the development is allowed to go ahead it will have a huge impact on holiday makers staying in these cottages and my livelihood and many others in the area"

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Policies considered

Please note that these policies can be viewed on the Policies page Pembrokehire Coast National Park website -

<http://www.pembrokeshirecoast.org.uk/default.asp?PID=549>

LDP Policy 01 - National Park Purposes and Duty
 LDP Policy 07 - Countryside
 LDP Policy 08 - Special Qualities
 LDP Policy 09 - Light Pollution
 LDP Policy 11 - Protection of Biodiversity
 LDP Policy 15 - Conservation of the Pembrokehire Coast National Park
 LDP Policy 29 - Sustainable Design
 LDP Policy 30 - Amenity
 LDP Policy 31 - Minimising Waste
 LDP Policy 32 - Surface Water Drainage
 LDP Policy 34 - Flooding and Coastal Inundation
 LDP Policy 35 - Visitor Economy
 LDP Policy 52 - Sustainable Transport
 LDP Policy 53 - Impacts on traffic
 PPW7 Chapter 04 - Planning for Sustainability
 PPW7 Chapter 08 - Transport
 SPG05 - Sustainable Design
 SPG06 - Landscape
 SPG20 - Siting and Design of New Farm Buildings
 SPG21 - Accessibility
 TAN 06 - Planning for Sustainable Rural Communities
 TAN 23 - Economic Development

Officer's Appraisal

Background

The application site has a history of planning applications relating to various new cattle buildings as well as conversion of a building on site to a dwelling. The most recent application was dealt with by the Authority in September 2013 and this proposed retention of two new buildings which were erected without the benefit of planning permission. This application was approved subject to conditions. This current application has been submitted without the benefit of any pre-application discussions.

The farm holding extends to approximately 280ha, comprising of 160ha at Velindre Farm, and a further 45ha at Woodlands Farm at Tregwyn. The holding also rents 75ha of land at Penysgwarne Farm which is approximately

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3km to the north east of the site. The holding currently has a milking herd of 540 cows which are housed indoors for the majority of the year and grazed outdoors when weather and soil conditions permit. The applicant explains in the supporting information that there has been significant investment in buildings and infrastructure at the farm which has included a new accommodation building, cattle handling facilities and dairy including a 70-point rotary parlour. Furthermore it is advised that these investments have improved cow welfare, with a resulting fall in culling rates and increased productivity, with the unit achieving yields in excess of 10,000 litres per cow per year.

The farm itself is within 2km of the Coast and is in proximity to two protected sites which include the St Davids Special Area of Conservation (SAC) and the Strumble Head-Llechdarad Cliffs Site of Special Scientific Interest (SSSI). The wider area is mainly agricultural, with dairy and some arable farming along with tourism.

History

- NP/13/0270 – Velindre Farm, St Nicholas – Cattle Accommodation Building, Dairy Building, Access Track and Silage Storage Area (Retrospective) – Approved – 25 September 2014
- NP/05/564 – Velindre Farm, St Nicholas – Conversion of outbuilding to dwelling – Approved – 14 February 2006
- NP/01/543 – Velindre Farm, St Nicholas – Cattle Housing – Approved – 7 January 2002
- NP/238/95 – Velindre Farm, St Nicholas – Agricultural Buildings – Approved – 25 July 1995
- NP/184/88 – Velindre Farm, St Nicholas – Extension – Approved - 20 May 1988
- NP/583/83 – Velindre Farm, St Nicholas – Cattle Feeding Area – Approved – 22 December 1983
- NP/137/82 – Velindre Farm, St Nicholas – Erection of Cattle Shed – Approved – 22 June 1982

Constraints

- Special Area of Conservation – within 500m
- Biodiversity Issue
- Safeguarding Zone
- Rights of Way Inland – within 50m
- ROW Coast Path – within 10m
- Potential for surface water flooding

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- Recreation Character Areas

Current Proposal

The application proposes the erection of a cattle accommodation building with associated yard and the construction of a slurry lagoon.

Cattle Building

The proposed building measures 55m long by 46.6m wide and up to a ridge height of 6.6m with eaves level at 4.9m with three separate roof spans. The building is proposed to be sited in an existing gap between the hedgebank which forms the access into Velindre Farm and an existing complex of buildings. This would accommodate a floor area of 2,552m² to accommodate approximately 320 dairy cows.

The side walls are proposed to be constructed with climate control curtains on the sides and have open ends. The gable ends are proposed to be finished in dark green profile steel sheeting from eaves height to the roof and the roofing sheets are proposed to be natural grey corrugated fibre cement with skylights.

Slurry Lagoon

The slurry lagoon proposed is an irregular shape with its longest axis measuring 110m long by 60m wide and is proposed on land located approximately 280m west of the farm unit. The lagoon would be 4.4m deep and provide a useable volume of 14,800m³. Slurry would be pumped from the existing slurry storage tower which is at the farm to the lagoon via an overland umbilical pipeline and underground road crossing. Excess spoil from the excavation of the lagoon would be used in the banks of the slurry store to provide landscaping. Landscaping is shown to consist of a new 120m hedgerow to be positioned 15m away from the east and south facing banks of the lagoon. Submitted photomontages also identify that the existing hedge to the north would be left to grow to twice its existing height (approximately 2.5m – 3m).

The farm currently employs ten full-time staff and two part-time staff and it is expected, after expansion, that the farm would employ eleven full-time staff and two part-time workers.

The application has been supported with the following information;

- Design & Access Statement (v2 August 2014)
- Supporting Statement/Policy Appraisal (Amended v3 – August 2014)
- Options Appraisal (July 2014)

Key Issues

The application raises the following planning matters:-

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- Policy and Principle of Development
- Visual Amenity and Special Qualities of the National Park
- Highway Safety, Access and Parking
- Neighbouring Amenity and Privacy
- Slurry Spreading, Water and Waste matters
- Impact upon Ecology
- Lighting Impacts
- Alternative Options
- Economic Benefits

Policy and Principle of Development

The general thrust of National Policy in the form of Planning Policy Wales (PPW) (Edition 7, July 2014)¹ and Technical Advice Note 6 acknowledges support for farming and particularly sustainable agriculture.² PPW states (para.7.6.5) *“Local planning authorities should adopt a constructive approach towards agricultural development proposals, especially those which are designed to meet the needs of changing farming practices or are necessary to achieve compliance with new environmental, hygiene or welfare legislation”*.

Whilst a general support for farming expansions is evident in policy terms what needs to be considered in this particular case is whether the expansion proposed for this farm is an appropriate development within the National Park having particular regard to the special qualities of the National Park and policies set out in the LDP.

Policy 1 – National Park Purposes and Duty (Strategy Policy) advises that development must be compatible with (a) the conservation or enhancement of the natural beauty, wildlife and cultural heritage of the Park, and, (b) the public understanding and enjoyment of those qualities. Particular reference is made to the need to have regard to fostering the economic and social well-being of local communities provided this is compatible with the statutory purposes of the National Park.

In terms of countryside protection policies, Policy 7 – Countryside, sets out the types of developments that will be permitted in countryside locations (i.e. outside of a recognised Centre). This includes, within criterion (h), farm buildings justified for agricultural purposes. The supporting text to this policy, at paragraph 4.43 of the LDP advises *“The National Park countryside is an important contributor to tourism, farming, conservation etc .Issues for the Park include finding the right approach to the amount of development to be permitted, taking account of accessibility issues, the need to sustain local communities and the need to protect the National Park landscape.”*

Whilst therefore the principle of agricultural development can be supported there is a clear need to assess the impact of this development through its character within the landscape and consider other relevant material

¹ Paragraph 7.6.5 Planning Policy Wales (Edition 7, July 2014)

² Paragraph 6.1.1. Technical Advice Note 6: Planning for Sustainable Rural Communities July 2010

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considerations including matters such as highway safety, neighbouring amenity particularly in relation to odour matters along with matters relating to slurry storage and management. Other relevant considerations include any impacts upon ecology, lighting impacts, consideration of alternative schemes and any economic benefits of the proposal.

Visual Amenity and Special Qualities of the National Park

Policy 8 of the Pembrokeshire Coast National Park Local Development Plan (LDP) is a strategic policy which refers to the special qualities of the National Park and lists priorities to ensure that these special qualities will be protected and enhanced. Policy 15 of the LDP seeks the conservation of the Pembrokeshire Coast National Park with criteria 'a' and 'b' resisting development that would cause significant visual intrusion and/or, that would be insensitively and unsympathetically sited within the landscape. Criterion 'c' resists development that would introduce or intensify a use which is incompatible with its location. Criteria 'd' and 'e' resists development that would fail to harmonise with, or enhance the landform and landscape character of the National Park, and/or fail to incorporate important traditional features.

Policy 29 of the LDP requires all development proposals to be well designed in terms of place and local distinctiveness (criterion 'a'). Policy 30 of the LDP seeks to avoid development that is of an incompatible scale with its surroundings (criterion 'b') or is visually intrusive (criterion 'd').

The application site is positioned along the boundary of the National Park and near a key tourist route from St Nicholas through to Strumble Head. The site also lies adjacent to a public right of way giving access to the coast path. The Authority has produced a Landscape Character Assessment of the National Park as Supplementary Planning Guidance and the application site is placed within Local Character Area (LCA) 20 - Trefin. This area is defined as being a large linear coastal area running southwards from the prominent rocky hill of Garn Fawr south westwards to the eastern end of the Carn Llidi hills up to but excluding Carn Penberry. Visually this area consists of a series of tall indented cliffs and steep slopes with occasional jagged rocky outcrops contrasting with more sheltered inlets set between. The hinterland, within which the application site falls, is defined as being gently undulating agricultural landscape of medium sized fields with close visual relationship with the adjacent coast. The area is interspersed with regular scattered farmsteads and occasional hamlets and small villages. In classification against LANDMAP criteria the area is defined as containing high, outstanding and moderate visual and sensory aspect areas along with high and outstanding historic and cultural landscape aspect areas.

It is clear that the development proposed offers quite a dramatic change to the scale of the farming enterprise taking place. The farm currently has a milking herd of 540 cows which are housed indoors for the majority of the year and then grazed outdoors when weather and soil conditions permit. This application would result in further expansion to provide for a new additional

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building to accommodate approximately 320 cows in addition to a new slurry lagoon to meet the slurry storage requirements of the increased herd size. The new herd size to prevail as a result of this application would be 860 cows.

The applicant advises that there has been significant investment in the farm in recent years through the construction of a new accommodation building, cattle handling facilities and dairy including a 70 point rotary parlour. The facilities are provided through two buildings approved by the Authority last year (NP/13/0270) which now allows the unit to achieve yields in excess of 10,000 litres per cow per year.

The key question to ask therefore in dealing with this application is whether the development proposed will conserve or enhance the character and appearance of the National Park?

The building proposed as part of the application would measure 55m long by 46.6m wide and up to a ridge height of 6.6m. It would be positioned alongside two existing large agricultural buildings thereby creating a closed block of four buildings as opposed to the current situation with three buildings. The applicant suggests that although the building is large it is of a similar scale to the adjacent farm buildings and of a typical construction on modern dairy units.

Whilst the siting chosen appears to be the most logical solution to providing an additional building the key consideration here is whether the form and appearance of the farm would, as a result of the development, increase to a scale which would harm the special qualities of the National Park. Planning permission was granted retrospectively for the retention of two buildings erected at the site; however, this was subject to implementation of a detailed landscaping scheme submitted with the application. The landscaping has now been planted along the south boundary of the site, however, this will take a number of years to mature to any extent to help mitigate some of the bulkiness of the existing buildings. However, even once that mitigation is established, the farm will still have a noticeable effect on the landscape, notwithstanding the steps being taken to mitigate that effect.

The building proposed would be located near to the site access and whilst set against the backdrop of the existing structures the new roof area will add to the bulkiness of the built environment with it occupying an expanse across an area of 2563m². The public view at the site access from the highway will be one of an industrial nature due to the sheer number and form of the buildings that would result from this additional structure.

In regard to wider viewpoints as depicted in the viewpoints presented by the applicant (VP1, VP2, VP3, VP4, VP5, VP6) it is clear that whilst the building will not stand alone in its form and will integrate visually with the existing structures it will have the result of increasing the viewable roof area of the buildings at Velindre Farm. This will have the result of placing further emphasis on the farm complex in views towards the coast which will resultantly have impact upon the appearance of the landscape.

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The slurry lagoon element of the proposal would involve the creation of a large lagoon within an existing unspoilt field to the west of the farm complex. Some errors were contained in some documents provided by the applicant in respect of an incorrectly quoted size of the lagoon, however, it is established from the drawings and recent correspondence that the lagoon proposed measures 110m long by 60m and follows the shape of the west field boundary in an irregular shape.

The applicant has provided a 'line of sight diagram' (Drawing RAC/6199/9) which refers to a position on the highway north of St Nicholas looking towards the site for the proposed slurry lagoon. This indicates that due to proposals for a new hedge at 2m high the sight line would not take in views of the lagoon itself. In addition to this two photomontages have been produced (PM1, PM2) with views taken from the public footpath near the proposed site as well as from land to the east. Viewpoint PM1 shows a view towards the site from a position on the highway to the north of St Nicholas. This indicates the position of the proposed slurry lagoon behind the buildings with proposed new hedgerow. Viewpoint PM2 shows closer range views of the slurry lagoon viewed from the public right of way near the site. This indicates that the existing hedge will be allowed to grow to twice its existing height, however it also indicates that some of the lagoon surface will be visible.

It is considered that screen planting will help aid and potentially shield some views of the slurry lagoon, however, parts of the lagoon would still be visible from the public footpath as well as longer distance views due to the topography of the land. Views from the east of the application site in combination with existing and proposed complex of buildings will have the cumulative effect of harmfully changing the landscape character of this part of the National Park. This change will ensue for a larger expanse of industrial type buildings coupled with a slurry lagoon which is not considered to be a development which compliments or in any way enhances the National Park landscape. The National Park is charged with conserving and enhancing its natural beauty, wildlife and cultural heritage and the public understanding and enjoyment of those qualities. A slurry lagoon, in this instance will neither conserve nor enhance the qualities that the National Park is widely acclaimed for having and protecting (Policy 8 refers).

Although the applicant considers that the development would not be of a scale that could make any 'significant' impact on the character of the wider landscape, its strategic position in the National Park means that it would be a prominent and disruptive element..

The landscape in this part of Pembrokeshire is rightly considered to be a valuable resource and the proposed changes to this large site would have a perceptibly harmful impact. The proposed development would consequently conflict with the policy requirement to protect the quality of the surrounding landscape (policies 8, 15, 29 and 30 refer).

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In summary of the issues, whilst there may be a case that additional mitigation such as further planting could help mitigate some views of both the new building and lagoon, it is not considered that this would go far enough in protecting the special qualities of the National Park. The development would remain part of the landscape for many future years. As such the development will result in a loss of a sense of remoteness and tranquillity (policy 8 criterion a), will not protect the pattern and diversity of the landscape (Policy 8 criterion c), will be insensitively and unsympathetically sited within the landscape (Policy 15 criterion b), will introduce and intensify a use which is incompatible with its location (Policy 15 criterion c) will fail to harmonise with or enhance the landform and landscape character of the National Park (Policy 15 criterion d). The development is not considered to be well designed in terms of place and local distinctiveness (Policy 29 criterion a), is of an incompatible scale with its surroundings and is visually intrusive (Policy 30 criterion b and d).

Highway Safety, Access and Parking

Policies 52 and 53 of the Local Development Plan refer to sustainable transport and the traffic impacts of proposed development requiring that new development has no adverse impact upon traffic safety. The application has not been supported with a detailed Transport Assessment; however, the applicant has provided information on the type and number of journeys associated with the existing and proposed farm as a result of expansion. This information is included within the 'Supporting Statement/Policy Appraisal' document (Amended v3 August 2014) and the below tables have been copied from Appendix 7: Traffic Forecast.

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Total Annual Traffic Movements at Velindre Farm (Existing)1 vehicle movement is a movement either onto or off the site

Movement type	Movement		Vehicle	Movements/year
Forage ¹⁰	29	/Month	Tractor & Trailer	350
Blend feed	60	/Year	29t HGV	60
Straw (feed)	34	/Year	11.5t Tractor & Trailer	34
Parlour cake	29	/Year	29t HGV	29
Sawdust (bedding)	18	/Year	20t HGV	18
Milk tankers	56	/Month	29,000 Litre HGV	672
On-site staff (6)	24	/Week	Car/LGV	1,248
Off-site staff (4) ¹¹	30	/Week	Car/LGV	1,560
Foot trimming	4	/Month	Car/LGV	104
Vet	2	/Week	Car/LGV	24
Livestock Transfers (beef calves)	4	/Month	Car/LGV	48
Livestock Transfers (fallen stock)	4	/Month	Car/LGV	48
Minerals, dairy chemicals etc	12	/year	15t HGV	12
AI	2	/Year	Car/LGV	2
Post	12	/Week	Car/LGV	624
Contractors (slurry) ¹²	833	/Year	Tractor & Trailer (2,300 gallon)	833
Total HGV				791
Total Tractor & Trailer				1,217
Total Car/LGV				3,658
Total				5,666

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Total Annual Traffic Movements at Velindre Farm (Proposed)

1 vehicle movement is a movement either onto or off the site

Movement type	Movement		Vehicle	Movements/year
Forage ¹⁰	46	/Month	Tractor & Trailer	557
Blend feed	95	/Year	29t HGV	95
Straw (feed)	53	/Year	11.5t Tractor & Trailer	53
Parlour cake	46	/Year	29t HGV	46
Sawdust (bedding)	28	/Year	20t HGV	28
Milk tankers	56	/Month	29,000 Litre HGV	672
On-site staff (3)	24	/Week	Car/LGV	1,248
Off-site staff (7) ²³	40	/Week	Car/LGV	2,080
Foot trimming	4	/Month	Car/LGV	104
Vet	2	/Week	Car/LGV	24
Livestock Transfers (beef calves)	4	/Month	Car/LGV	48
Livestock Transfers (fallen stock)	4	/Month	Car/LGV	48
Minerals, dairy chemicals etc	12	/year	15t HGV	12
AI	2	/Year	Car/LGV	2
Post	12	/Week	Car/LGV	624
Contractors (slurry) ²⁴	576	/Year	Tractor & Trailer (2,300 gallon)	576
Total HGV				853
Total Tractor & Trailer				1,186
Total Car/LGV				4,178
Total				6,217

Summary Table

	Existing	Proposed	Difference
Total HGV	791	853	62
Total Tractor & Trailer	1,217	1,186	-31
Total Car/LGV	3,658	4,178	520
Total	5,666	6,217	551

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The supporting information provided states that this application would allow an increase in herd size by approximately 320 cows. The calculations put forward by the applicant appear to demonstrate that there would be an overall increase in movements at the farm of 551 per year or 1.5 movements per day. However, the applicant advises that of these the majority would be car related movements for workers. The information specifies that HGV movements would increase by 62 movements a year or approximately 1 additional movement a week. HGV movements are related to feed and bedding whilst the number of milk tankers visiting the site will remain unchanged as the herd would not exceed the capacity of the current collection vehicle (29,000 litre HGV). In terms of the impact of these movements on the local traffic the applicant advises this is minimal and in any event the journeys of milk tankers are regularly during night time hours. It is also inferred that HGV's access the national road network by driving north to the crossroads at Trefasser, before heading south on the C3019 St Nicholas Road to the A487, minimising the use of narrow lanes.

It is further explained in the supporting information that traffic movements relating to tractors and trailers collecting forage and spreading slurry would be expected to decrease by approximately 31 movements overall when compared to the existing situation. Currently the farm has a small slurry store on-site, with the majority of slurry being regularly transported by road for storage at Penysgwarne and Woodlands Farms to the north and south. The applicant advises that construction of the proposed lagoon would allow for the majority of slurry arising from the farm to be stored onsite and would avoid the need for these traffic movements. It is also explained that issues surrounding spreading campaigns would be reduced as the 6 month storage period would allow slurry to be spread at a much reduced intensity which would also significantly reduce the effect on other road users and local residents. The impact of farm movements on local residents would be further minimised as approximately half of these movements are south towards Woodlands Farm and half towards Penysgwarne Farm.

The Authority consulted Pembrokeshire County Council Highway Authority in relation to this application. An initial response to the application (7 July 2014) raised some potential concerns and whilst not objecting to the application suggested the provision of three new passing places for vehicles along with visibility splays at both side of the Velindre Farm access road. In that response the Highway Officer had based this opinion on the traffic increasing at the site and not being made aware that the scheme would include a pipe to pump raw slurry between the farm and slurry lagoon.

Following receipt of the additional supporting information the Highway Authority issued a revised response (1 August 2014) explaining that the new information importantly describes that a thrust-bore pipe will be installed under the County Road allowing all the slurry to be collected on the farm to be piped to the new lagoon. This means there will not be specific two-way tanker movements crossing the road to fill up the lagoon. Likewise the Highway Authority advises that it has been confirmed that slurry for the fields around

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the Velindre Farm itself can be pumped for spreading using the proposed pumps and pipes. The response advises that further to this it has been explained that the initial two way movements from Velindre Farm to fill up the satellite slurry lagoons will be greatly reduced. It is suggested in response that the increased volumes of HGV's bringing in food for the larger herd within the proposed building can therefore be offset against the reduction in slurry tanker movements. As such the requirement for passing places and visibility improvements have not been maintained by the Highway Authority.

Notwithstanding this the Highway Authority has suggested a condition be imposed in relation to a requirement for a detailed plan to be approved showing all pumping of slurry within the holding and the pipes for pumping under the County Road before the slurry lagoon is first brought into use.

Whilst there is clear concern from objectors that the development proposed will result in additional harm upon the highway network of the area the advice of the Highway Authority in conjunction with the information provided in relation to vehicle movements leads to the conclusion that the development will not have an adverse impact upon the traffic safety in the area. This is an existing working farm and there are existing narrow lanes in the vicinity. Based on the traffic movement information provided by the applicant, the development would not conflict with the requirements of Policy 53 and suitable conditions could be attached requiring improvements to access arrangements, management of timing of deliveries as well as of control relating to the areas of spreading and methods.

Recent communication received from objectors to the development raise concerns with the movement figures presented by the applicant. The response advises that the information contains significant errors and even misrepresentation of the traffic movements described in Appendix 7. It is contended that the total number of slurry tanker movements should be 3320 and not the 576 movements declared. This information has been relayed to the applicant's agent and the Highway Authority and any further clarification will be relayed verbally at the committee meeting.

Neighbouring Amenity and Privacy

Policies 29 and 30 of the Local Development Plan seek to protect community cohesion and health and to avoid incompatible development that would lead to a significant adverse impact upon amenity. The supporting text at paragraph 4.136 explains that the policy aims *"to protect the amenity enjoyed in people in their residences, workspaces and recreational areas. Amenity is defined as those elements in the appearance and layout of town and countryside which makes for pleasant life rather than mere existence. Anything ugly, dirty, noisy, crowded, intrusive or uncomfortable is likely to adversely affect amenity"*.

The potential impacts from the proposals relate to potential odour and noise as well as disturbance from the increased activity at the farm. A number of objections to the application have been received which have been

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summarised in an earlier paragraph. A lot of objections received focus on the potential harm of the development upon amenity in the area through odour, harm to amenity of the National Park and visitors to the National Park in general as well as harm to public health. Others raise concern about the intensive nature of farming being undertaken.

The Authority has consulted Pembrokeshire County Council's Environmental Health Section on matters of amenity. Environmental Health officers advise of no objection to the application and explain that the proposed lagoon has been designed to comply with the relevant legislation/guidance. Natural Resources Wales has responded to the application consultation and also raised no objection subject to the slurry lagoon being designed to meet the slurry regulations.

It is understood that a specific odour management plan may only be required for slurry lagoons which are located within 200m of a neighbouring property or protected dwelling. This is in line with advice produced by the former Environment Agency Wales entitled 'Pembrokeshire Good Practice Guidance: Slurry Stores'.

In the case of the application site the proposed slurry lagoon lies approximately 220m from the nearest receptor 'Velindre West' to the north east, the next closest property is 'Pwll-Crochan' which lies 250m to the north west. Additional properties are located some 350m to 400m to the south of the proposed lagoon site and include the property group including 'Hafod', 'Isyllt Fach' and 'Tresissllt'. Other properties include 'Tre-limmin' which is 740m to the north of the site, 'Tregyddulan' which is 830m to the north-east, 'Cranged' which is 740m to the east and the village of St Nicholas which lies 800m to the east.

The applicant explains in the submission that impact upon the amenity of the majority of the dwellings (from the proposed slurry lagoon) will be limited due to a combination of distance and prevailing wind direction (south-westerly). Also it is advised that during the winter storage period a crust will form on the surface of the lagoon comprising bedding material. The applicant's agent explains "*the crust has a significant effect on the level of odour arising from the lagoon as it suppresses emissions. Although the dwelling at Velindre West is downwind of the proposed slurry lagoon, the combination of distance and dilution and dispersion caused by average wind speeds significantly reduce any effect on this dwelling*". The applicant's agent also advises that it is not expected that noise from cows housed at the farm would be a significant issue, as the level of noise arising from animals relates directly to welfare, with noise only arising from distressed animals.

A letter of support has been received from 'Alta UK' the company responsible for visiting the site on a weekly basis to undertake fertility management of the herd. In relation to some concerns raised about animal welfare the writer explains:

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I have read the letters opposing the application and am extremely dismayed at the completely unsubstantiated statements made with regard to poor husbandry and farming practices undertaken. Within my role at Alta UK I visit Velindre on a weekly basis and undertaken the fertility management of the herd. As part of a team comprising of an Alta UK AI technician, Mike John, the Vet and Daniel Harries himself I monitor all aspects of performance at the dairy... Velindre's Pregnancy rate runs at 24%. The national UK Dairy herd pregnancy rate is 13%. Velindre is nearly twice the national average and places in the top 1% for the whole country. Velindre's daily average milk yield per cow is 36.6 litres. The national herd average is 21 litres per cow. Again Velindre places in the top 3% for the whole country. The annual mortality rate at Velindre is 3.1%. The national herd average is 8%. Again Velindre is well below the national average. Velindre is a well managed herd with some of the best figures in the whole of the UK. Only happy healthy cows can obtain and sustain this level of performance. I hope that the snapshot of data that I have shared with you will put to bed the fictitious and unfounded statements that have been made"

The owners of Velindre-West and Pwll-Crochan have both registered objections to the application and are concerned with the potential impact the development will have upon the amenity of their properties both visually and through odour.

Amongst other matters Policy 30 states that development will not be permitted where it has an unacceptable impact on amenity particularly where:

- (a) the development is for a use inappropriate for where people live or visit;
- (c) the development leads to an increase in traffic or noise or odour or light which has a significant adverse impact; and/or

It is clear from the plans provided that whilst the Environmental Health team are satisfied with the proposed siting from a public nuisance/odour control dimension, the slurry lagoon would be in proximity to a number of properties. Although the applicant has proposed some bank screening around the lagoon with a hedgerow and additional growth to the adjacent hedge it would remain that the lagoon would be visible from Velindre West and the access towards Pwll-Crochan. It will lie in proximity to the public footpath which leads in a westerly direction towards the Coast Path.

In relation to criterion (a) whilst the site lies within the countryside and is part of an active rural farming enterprise the development and use of a slurry lagoon measuring 110m across its longest axis by a width of up to 60m is considered to be an inappropriate use for where people live or visit. The supporting text to Policy 30 advises that the policy aims to protect the amenity of people in their residences, workspaces and recreational areas and anything ugly, dirty, noisy, crowded, intrusive or uncomfortably is likely to adversely affect amenity. In this instance the relationship of the slurry lagoon, which is an ugly and uncomfortable development within this setting, will adversely affect the amenity of the adjacent occupiers. Furthermore the site is in view of

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a public right of way which leads to the Wales Coast Path and it is considered to be an inappropriate development in this particular location within the National Park.

In relation to criterion (c) whilst there will be odour from the slurry lagoon and this emanate in the area and near existing residences in view of the lack of objection from Environmental Health it cannot be held that the development will lead to a noise or odour issue which will have a significant adverse impact.

To summarise it is considered that the development by virtue of expansion of the farm coupled with the slurry lagoon proposal will have an adverse impact upon the amenity of neighbouring occupiers as well as visitors to the area. As such the development fails to comply with the requirements of policy 30 (criteria a).

Slurry Spreading, Water and Waste matters

The applicant advises in the supporting statement that the farm currently uses 345ha for slurry spreading which easily exceeds the recommended minimum area of 273ha required for the proposed size of the herd at the holding (assuming a minimum application rate of 83m²/ha). A plan has been provided (RAC/6199/6) which identifies the extent and location of the slurry spreading area which is on land parcels to the north and north west of the application site as well as on land at Penysgwarne farm to the north east.

The information submitted advises that a new slurry lagoon is required in order to meet the slurry storage requirements of an increased herd size and also to provide additional storage to allow greater flexibility for slurry spreading operations. Once fully stocked it has been calculated that the unit would require an additional 140,100m³ of slurry storage for a six month period.

The proposed lagoon would be 4.4m deep and provide a useable volume of 14,800m³. Slurry would be pumped from the existing slurry storage tower which is located at Velindre Farm to the lagoon via an umbilical pipeline and underground road crossing. A plan showing this proposed arrangement has been provided (RAC/6199/8).

In terms of potential pollution of surface and ground waters the information submitted advises that in order not to give rise to the risk of pollution the slurry store would be constructed to comply with The Water Resources (Control of Pollution) (Silage, Slurry and Agriculture Fuel Oil) (Wales) ['SSAFO'] Regulations 2010.

In terms of water management the applicant acknowledges that the construction of large areas of impermeable surfaces has the potential to raise flood risk elsewhere through increased run-off. Due to the large surface area of the proposed roof of the new building this has the potential to increase run off. Information received confirms that all run-off from the roofs of the new

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building will be collected and discharged into an existing irrigation reservoir with a unused volume of approximately 3,400m³ located to the south of the site. The outfall of this reservoir is fitted with a hydraulic brake to ensure that water discharges are minimised. (no more than 2 litres per second). As this reservoir is no longer used for its original purpose (potato crop irrigation) it is left with ample spare capacity for accommodating run-off from extreme events.

In response to consultation Natural Resources Wales, the relevant Authority for slurry storage and water management matters confirm no objection to the proposal provided that the new slurry is designed to meet the above mentioned Regulations. However they note the intention to utilise a clay liner for the earth bank lagoon and request that a copy of the clay content analysis results are submitted for their records and the planning file. The applicant is currently undertaking this analysis and will furnish the results when ready. No concerns have been raised in relation to the proposed water management.

In view of the comments received from NRW and the fact that these matters could be addressed by a suitable planning condition there is no objection to raise upon impact to the water environment through the slurry proposals. Notwithstanding the concerns raised in relation to other aspects of this proposal it is considered that the development is acceptable in relation to its impact in terms of water and drainage and accords with the aims of Policy 32.

Impact upon Ecology

In terms of impacts upon ecology the site has not been identified as one which contains any protected species that could be harmed as a result of the development. The Authority's Ecologist advises that a desktop assessment has found that there is a low likelihood of protected species being found at the development site or that there would be any adverse impact on the habitat or species as a result of development. As such a protected species survey or habitat survey have not been formally requested. However, advice has been given that consideration should be given to any external lighting as bats may forage and commute along the hedgerows and over the fields. Lighting should be downward facing, as dim as possible and on a timer and could be covered by a suitable planning condition.

With regard to potential impacts upon protected areas it can be noted that the nearest ecologically designated sites to the farm unit are the St David's SAC and Strumble Head-Llechdafad Cliffs SSSI approximately 800m west of the farm and 460m west of the proposed lagoon site.

The supporting information advises that the farm follows a manure management plan which ensures that the areas adjacent to the SAC/SSSI and watercourses are avoided as per the information presented in the above paragraphs. In addition it is advised that prevailing winds combined with timing of spreading would significantly reduce the occurrences of wind blowing emissions arising from spreading land towards the protected sites. The information explains that the ammonia releases from the proposed slurry

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lagoon would not likely have an adverse impact on sensitive receptors due to these not being downwind of the lagoon and are a distance away (in excess of 400m). The Authority has no evidence to contradict the information and based on the responses of Natural Resources Wales and the Authority's Ecologist are satisfied that there will be no harm upon protected species or areas. As a result the scheme complies with the aims of Policy 11.

Lighting Impact

In terms of lighting itself the applicant advises that the cattle accommodation building would be unlit during daylight hours but in winter the accommodation building would be lit during those hours of darkness which fall between 05:00 and 23:00 to improve milk output and feed intake. During the night (23:00 to 05:00) lighting in the building would switch to low intensity red coloured light which allows farm workers to view the herd whilst providing a dark period for the cattle. The submitted information advises that luminaires within the cattle building would comprise fluorescent lighting units suspended close to the roof ridge on approximately 1m chains and approximately 15m spacing. Due to their positioning the internal luminaires will not be directly visible from outside the building. There are no proposals put forward for outdoor lighting as part of this application. In view of the fact that lighting will remain inside the building, controlled on timers and of a scale suitable for the needs of the herd it is not considered to result in adverse harm to the area. Such lighting matters could be controlled through a suitable planning condition, as could the installation of any external lighting.

Alternative Options

Concern was raised through consultation that a lack of consideration had been given to alternative sites for the proposed slurry lagoon. In response the applicant produced a plan (RAC/6199/7) as well as supporting document 'Options Appraisal July 2014' explaining the different sites available for siting of a slurry lagoon. The majority of sites around the farm are dismissed on the basis of potential groundwater restrictions, gradient restrictions, being within 200m of properties as well as landscape and visibility restrictions. The consideration of whether the applicant has alternative locations where he could provide a slurry lagoon does not affect the fact that he is entitled to have the proposal judged and considered upon its own merits. While the site proposed does appear to be a logical solution based on the information provided, the harm identified in earlier paragraphs has to be considered.

Economic Benefits

It is accepted that the proposals are part of an expansion proposed at an existing working farm. As such consideration needs to be given to any economic benefit the scheme may have upon this area in general and the National Park itself. Planning Policy Wales (Edition 7, July 2014) Chapter 7 advises at paragraph 7.6.5 that "*Local planning authorities should adopt a constructive approach towards agricultural development proposals, especially those which are designed to meet the needs of changing farming practices*".

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In terms of the information provided the applicant specifies that there are currently 10 full time and 2 part time staff employed. The proposed application would result in a net gain of 1 full time member of staff taking the total employed to 11 staff and there would be further temporary benefits during the construction period. .

Whilst the creation of employment benefits are a material consideration in applications for planning permission these benefits must be weighed in the balance. In this particular instance it is considered that the balance falls in favour of supporting the conservation of the National Park over the benefits of the creation of a single additional full time job and any temporary work or other economic benefits brought from this scheme.

Conclusion

The proposed development would allow the farm to expand its milking operation from 540 up to 860 milking cows. Although offering the economic benefit of one additional full time role and some additional benefits during the construction period, and enhanced output at the farm the intensive nature of development is considered to represent an inappropriate and harmful industrial form of development on land within the open countryside within the National Park. The proposed development by reason of its very form, character and scale will erode the special qualities of the National Park and will not be compatible with the strategic aims of conserving or enhancing the natural beauty, wildlife and cultural heritage of the National Park, and the public understanding and enjoyment of those qualities.

The cattle accommodation building and slurry lagoon will expand the site area visible and result in an unacceptable loss of a sense of remoteness and tranquillity, will not protect the pattern and diversity of the landscape, will be insensitively and unsympathetically sited within the landscape, will introduce and intensify a use which is incompatible with its location, and will fail to harmonise with or enhance the landform and landscape character of the National Park. The development is not considered to be well designed in terms of place and local distinctiveness, will be of an incompatible scale with its surroundings and be visually intrusive. In addition to these concerns the slurry lagoon by virtue of its form, scale and siting will have an adverse impact upon the amenities of neighbouring occupiers and visitors to the area due to the development consisting of a use inappropriate for where people live and visit..

As such the proposal is considered to be in conflict with policy. If planning permission were to be granted for the scheme in the face of this conflict, the harms identified would need to be clearly outweighed by other material considerations, as required by S38 (6) of the Planning and Compulsory Purchase Act 2004. There are advantages to the proposal that weigh in favour of the grant of planning permission and these advantages include the fact that the proposed development would create additional employment, both permanently on the farm, and during the temporary construction phase, as well as the increase output of the farm. However, the benefits of the scheme

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are considered to be far outweighed by the harm to the special qualities of the National Park in this instance.

In summary it is concluded that the development fails to comply with the requirements of policies 1, 8, 15, 29 and 30 of the Pembrokeshire Coast National Park Local Development Plan and National Policy in the form of Planning Policy Wales (Edition 7, July 2014) and is recommended for refusal.

Recommendation

The application be refused for the following reasons:

1. The proposed development represents an inappropriate and harmful industrial form of development on land within the open countryside within the National Park. The proposed expansion through a new cattle accommodation building and slurry lagoon by virtue of their siting, form, character and scale will erode the special qualities of the National Park and will not be compatible with the strategic aims of conserving or enhancing the natural beauty, wildlife and cultural heritage of the Park, and the public understanding and enjoyment of those qualities. The development will result in a loss of a sense of remoteness and tranquillity, will not protect the pattern and diversity of the landscape, will be insensitively and unsympathetically sited within the landscape, will introduce and intensify a use which is incompatible with its location and will fail to harmonise with or enhance the landform and landscape character of the National Park. The development is not considered to be well designed in terms of place and local distinctiveness, is of a scale that is incompatible with its surroundings and is visually intrusive. As such the development is contrary to the requirements of Policy 1 (National Park Purposes and Duty), Policy 8 (Special Qualities) (criteria a and c), Policy 15 (Conservation of the Pembrokeshire Coast National Park) (criteria b, c and d), Policy 29 (Sustainable Design) (criterion a) and Policy 30 (Amenity) (criteria a, b and d) of the Pembrokeshire Coast National Park Local Development Plan (Adopted September 2010) and Planning Policy Wales (Edition 7, July 2014).
2. The slurry lagoon by virtue of its siting, form, character and scale will have an adverse impact upon the amenities of neighbouring occupiers and visitors to the area due to the development consisting of a use inappropriate for where people live and visit, contrary to the requirements of Policy 30 (Amenity) (Criteria a, b and d) of the Pembrokeshire Coast National Park Local Development Plan.

MP 14 3 11



10 JUN 2014

MK	REVISION	DATE

DRAWING TITLE

LOCATION PLAN

CONTRACT

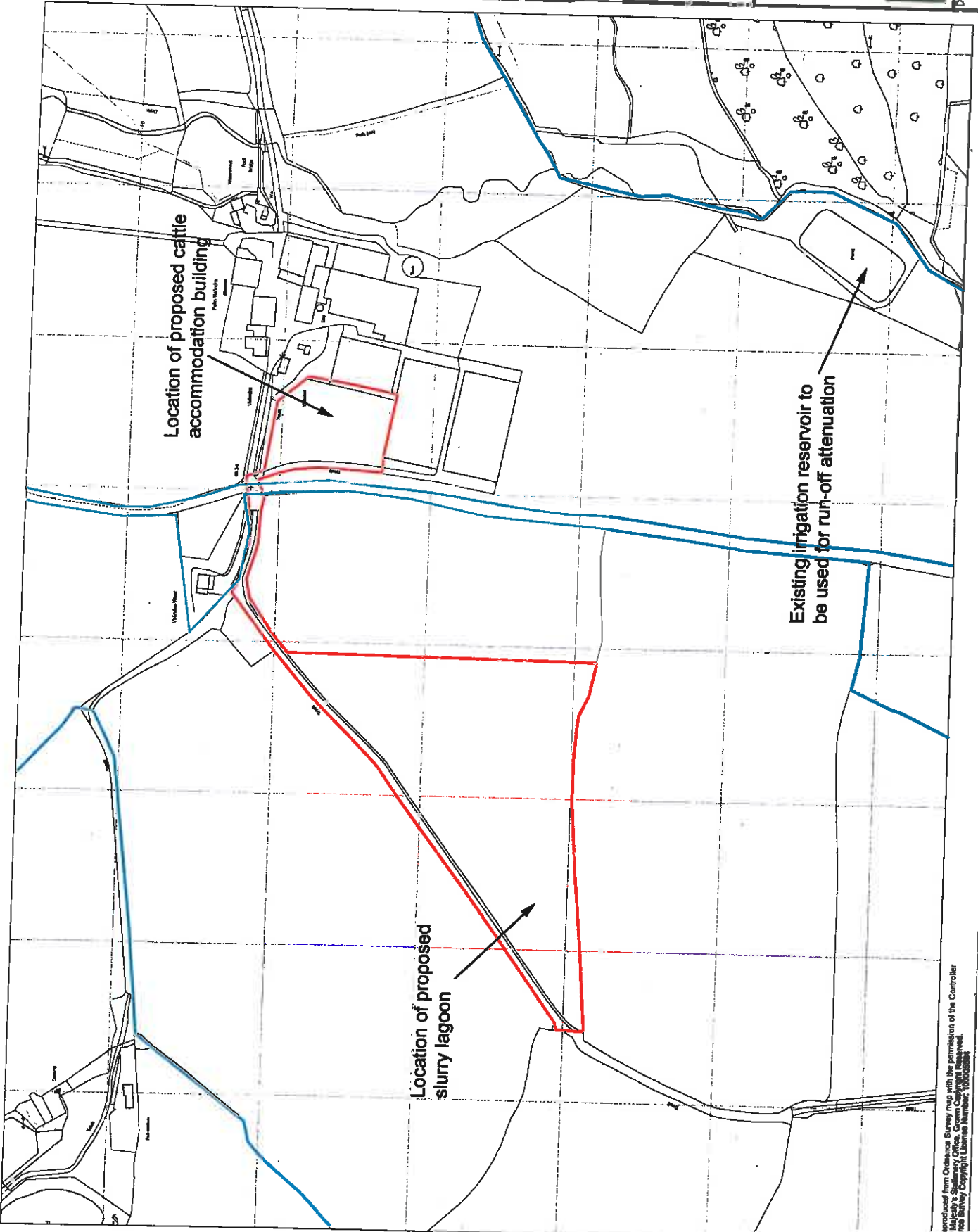
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Drawn	Chk'd	Date	Rev.
AL			
Scale			
1:2,500@A3		May 2014	

RAC/6199/1



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Proposed



Existing

14 J 11

CATTLE ACCOMMODATION - EXISTING AND PROPOSED SITE PLAN

CONTRACTOR:
**MR D HARRIES
 VELINDRE FARM
 ST NICHOLAS
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 SA64 0LJ**

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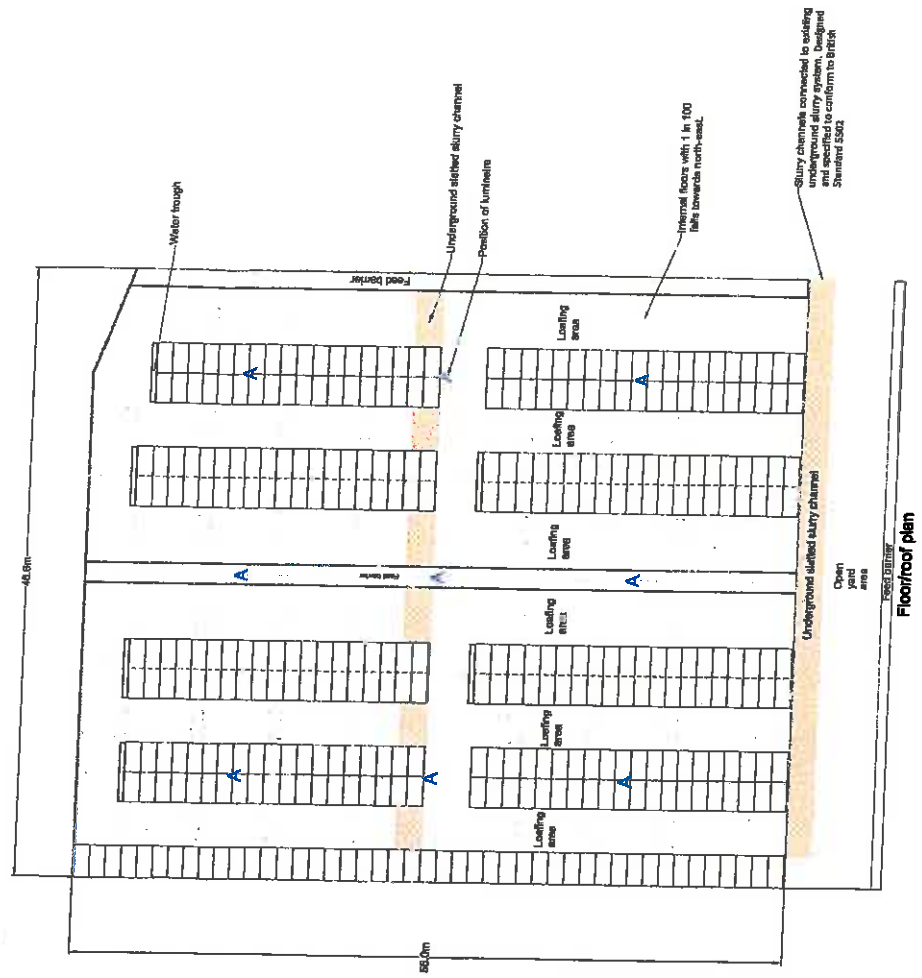
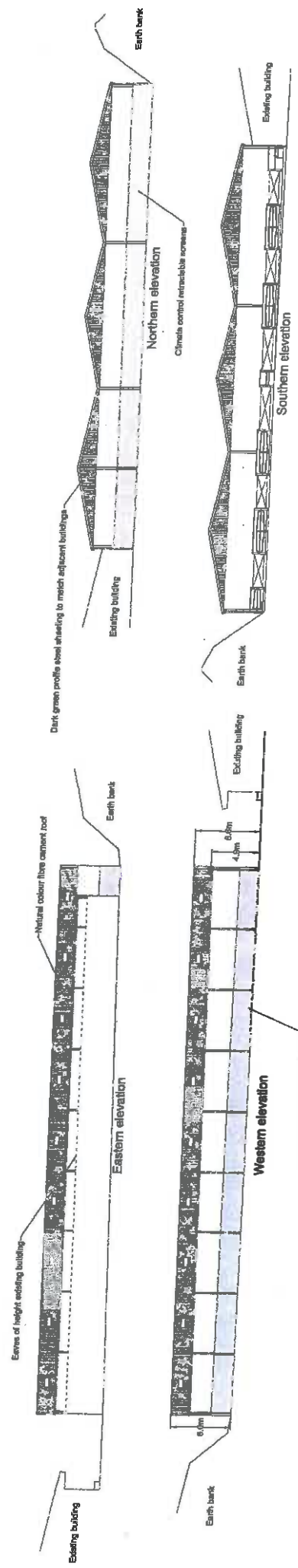
14 J 11

NP 14 3 1 1 16 JAN 2014

Full details of luminaires to be found in supporting statement



DRAWING TITLE		DATE	
CATTLE ACCOMMODATION- PROPOSED ELEVATIONS			
OWNER			
MR D HARRIES VELINDRE FARM ST NICHOLAS PEMBROKESHIRE SA64 0LJ			
DRAWING NUMBER			
RAC07698/3			



Floor/roof plan

2014 15

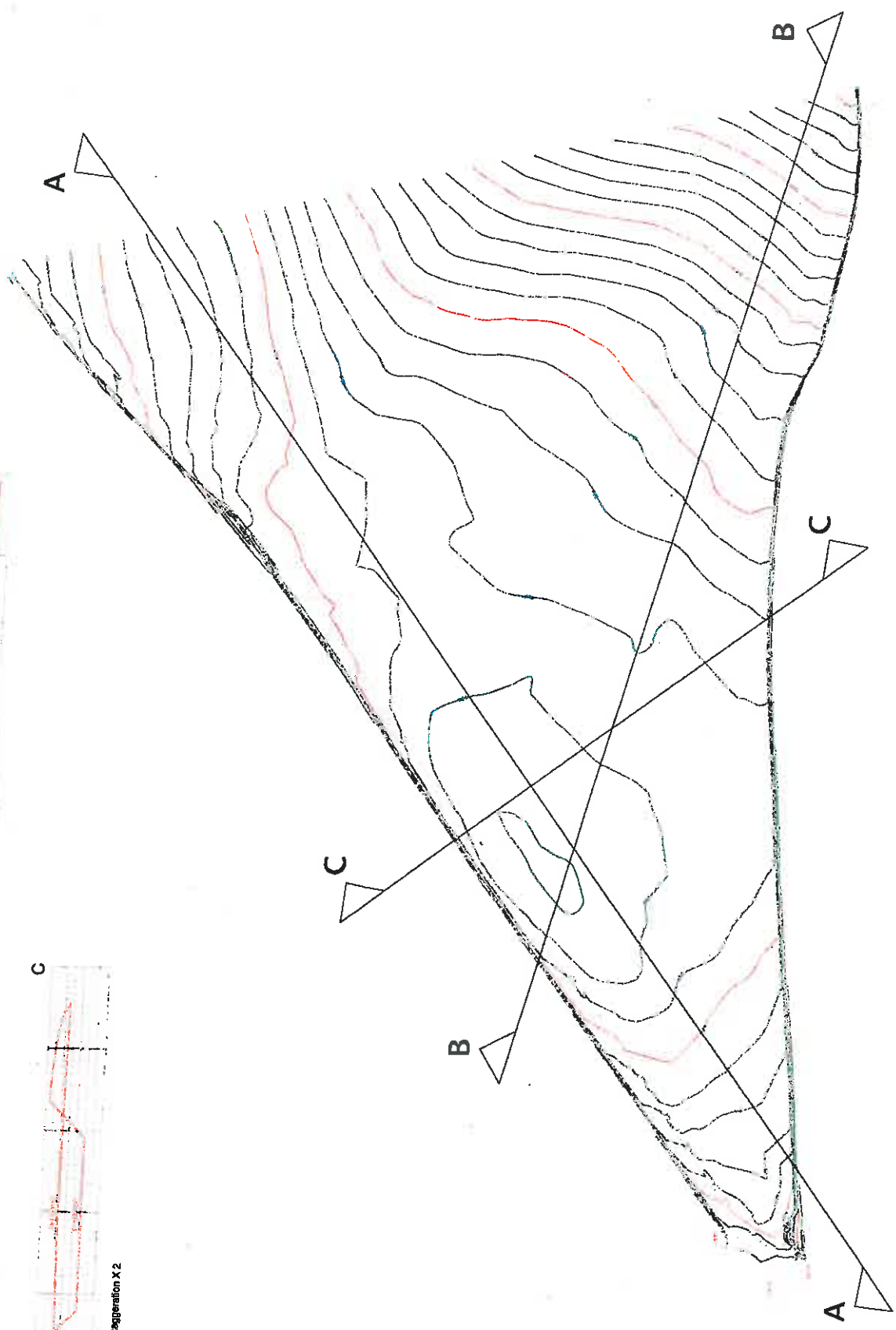
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PLANNED TBIC
SLURRY LAGOON- EXISTING
SITE PLAN

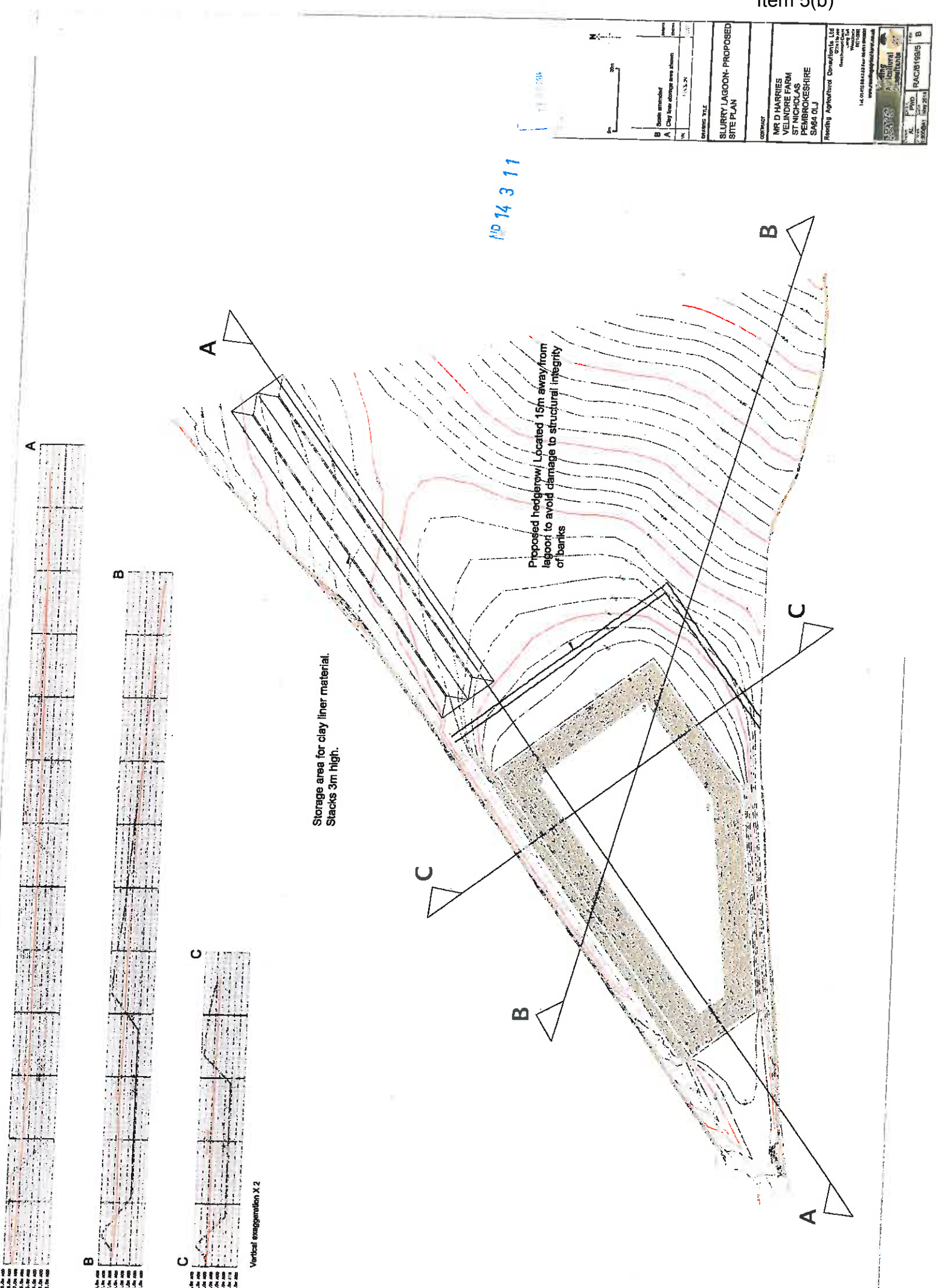
CONTRACT
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RAC/618814
2008/11 May 2014



Vertical exaggeration X2

MD 14 3 11

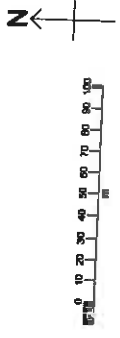


Storage area for clay liner material.
Stacks 3m high.

Proposed hedgerow/ Located 15m away from lagoon to avoid damage to structural integrity of banks

Vertical exaggeration X 2

Printed on 22 JUL 2014
22 JUL 2014
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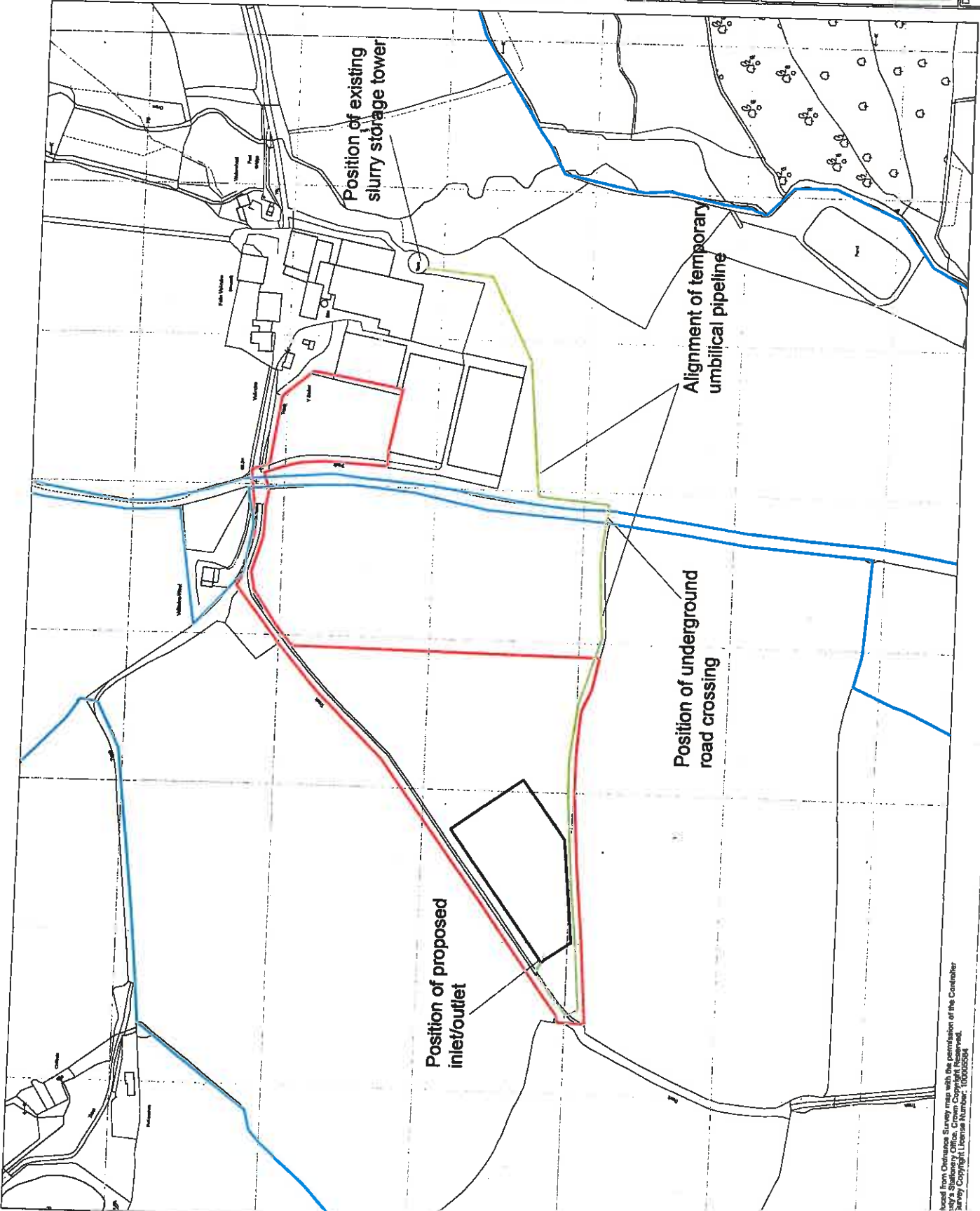
DRAWING TITLE
TEMPORARY SLURRY PIPELINE PLAN

CONTRACT
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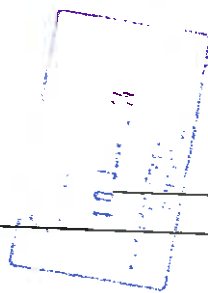
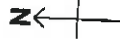
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Scales	1:2,500@A3	Date	RAC/6199/8
		July 2014	



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MP 14 3 11

- Owned land
- Rented land
- Slurry spreading agreements
- Position of existing slurry stores
- Farm haulage route



MK	REVISION	DATE

DRAWING TITLE

HOLDING PLAN

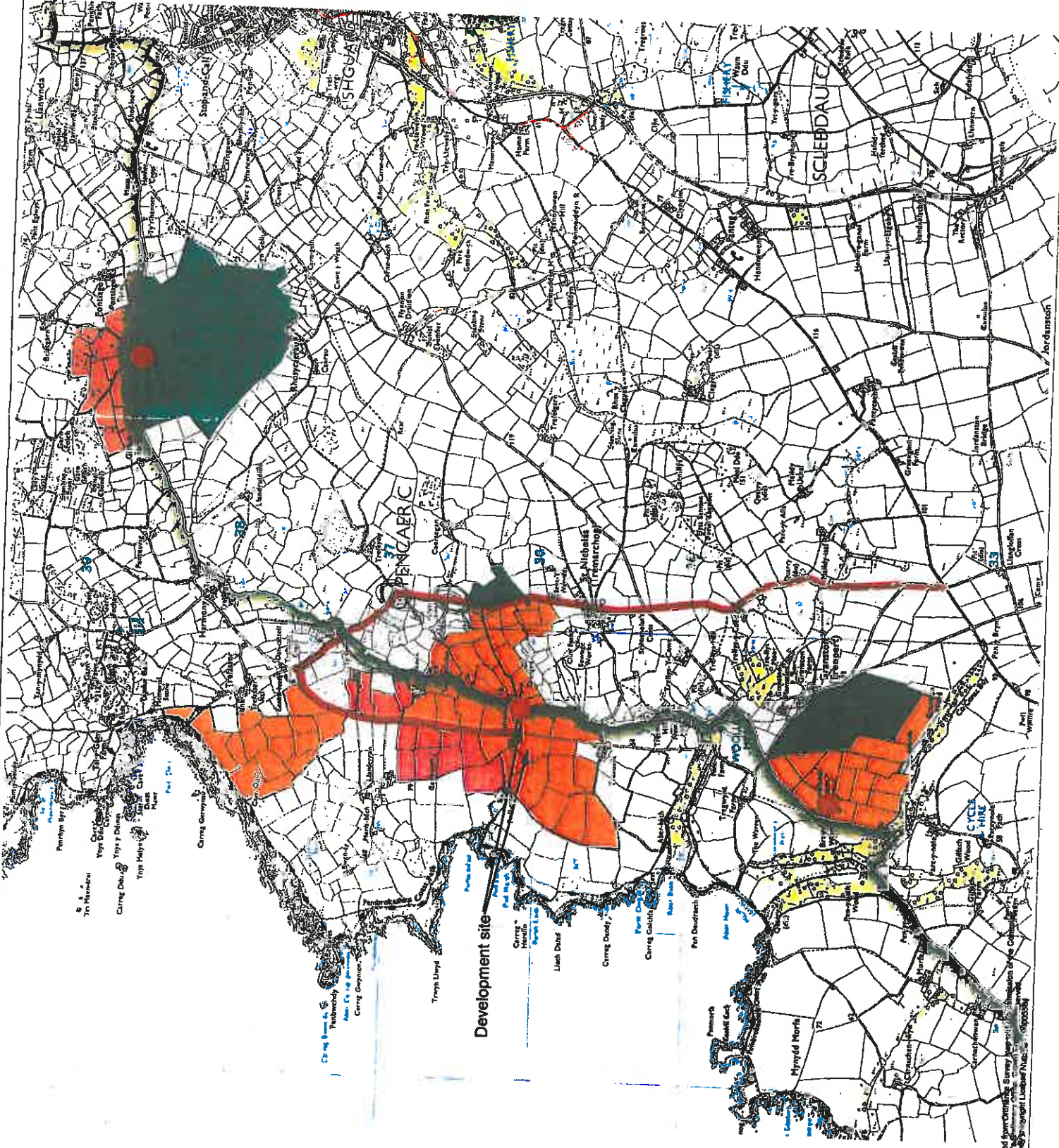
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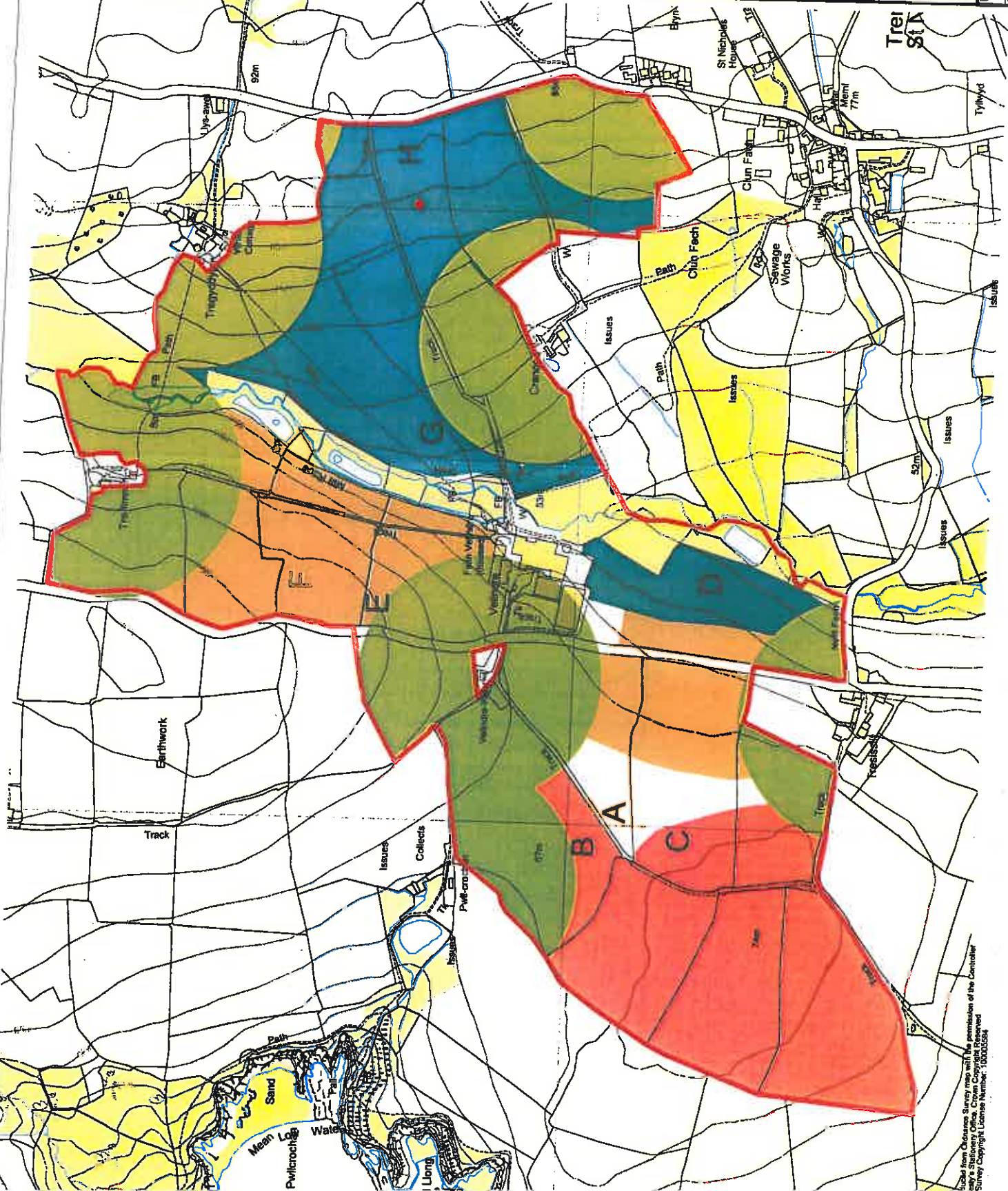


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Scales	Date	May 2014
N.T.S.		

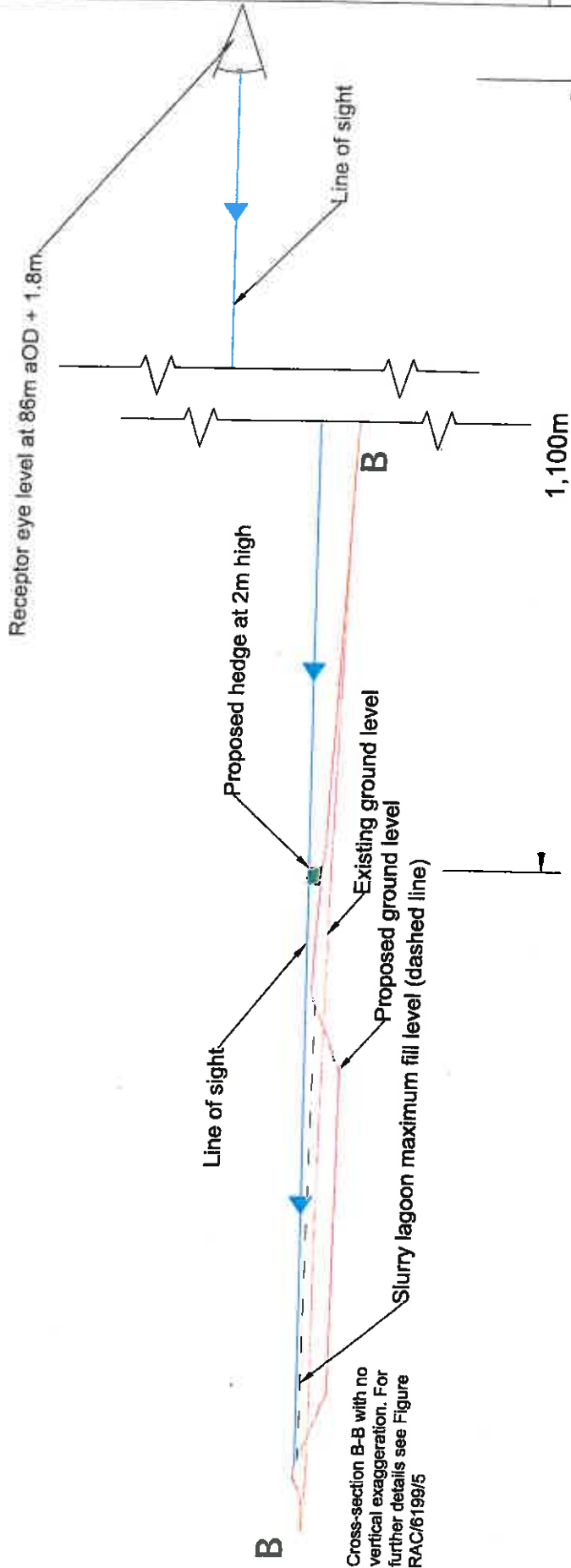


Based on Ordnance Survey map 1000111111. Information on the Contract is available on the website www.readingagricultural.co.uk

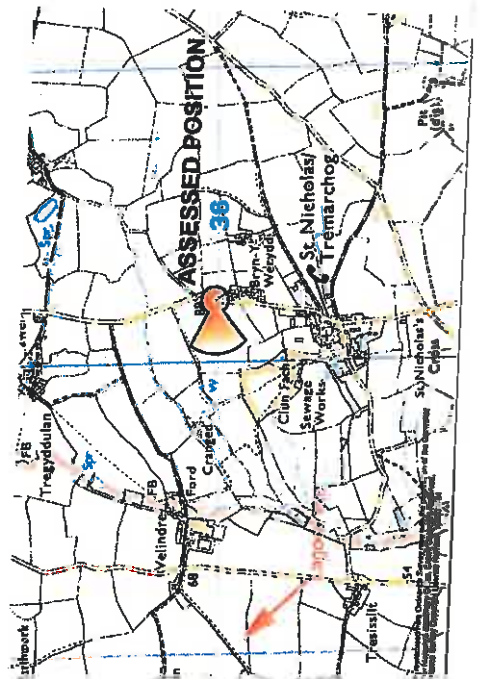
<ul style="list-style-type: none"> <200m of dwelling Landscape/visibility restriction Gradient restriction Groundwater restriction 		
<p>A Site assessed (see accompanying Options Appraisal)</p>		
<p>22 JUL 2014</p>	<p>REVISION</p>	<p>DATE</p>
<p>DRAWING TITLE</p> <p>OPTIONS APPRAISAL</p>		
<p>CONTRACT</p> <p>MR D HARRIES VELINDRE FARM ST NICHOLAS PEMBROKESHIRE SA64 0LJ</p>		
<p>Reading Agricultural Consultants Ltd Gate House Beechwood Court Long Toll Woodcote RG8 0RR Tel: 01491 684233 Fax: 01491 680800 www.readingagricultural.co.uk</p>		
<p>Drawn AL</p>	<p>Chk'd PWD</p>	<p>Rev. 1.1</p>
<p>Scales N.T.S.</p>	<p>Date July 2014</p>	<p>RAC/6199/7</p>



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Cross-section B-B with no vertical exaggeration. For further details see Figure RAC/6199/5



DRWING TITLE	REF/VSUN	A/A2
LINE OF SIGHT DIAGRAM		
CONTRACT		
MR D HARRIES VELINDRE FARM ST NICHOLAS PEMBROKESHIRE SA64 0LJ		
Reading Agricultural Consultants Ltd 100 High Street Reading RG1 1AA Tel: 01865 84233 Fax: 01865 84200 www.readingagricultural.co.uk		
Drawn	On Site	Rev:
AL	PWD	RAC/6199/9
Scale	1:500 @ A2	Issue
		July 2014

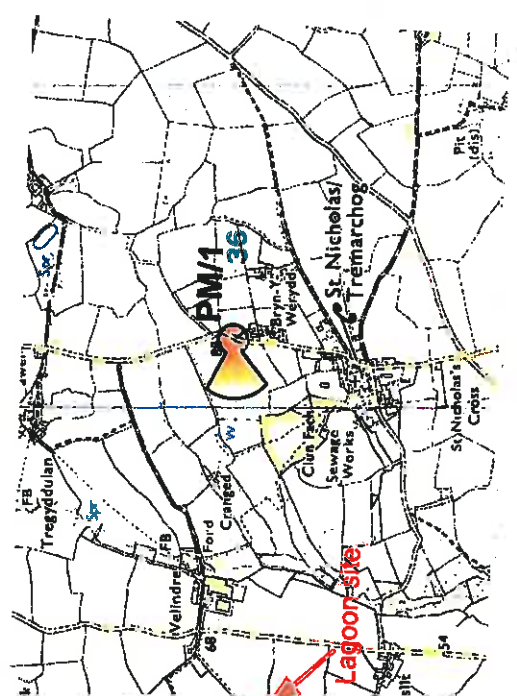
31.11.2014



Lagoon banktop shown by red line

Lagoon banktop shown by green line (grass) with dark fill for surface of lagoon. Hedgerows proposed for landscaping also shown.

Camera Type: Nikon D3200, AF-S DX Nikkor 18-55mm lens (set at 34mm for 50mm/35mm equivalent focal length)
 Date/Time: 17 April 2014, 10:25am
 Grid reference: SM 90196 35989
 Point height: 86m AOD
 Distance from development (slurry lagoon): 1,140m



PM1 - BEFORE/AFTER PHOTOMONTAGE OF SITE FROM GATEWAY ON HIGHWAY NORTH OF ST. NICHOLAS	
CONTRACT	
MR D HARRIES VELINDRE FARM ST NICHOLAS PEMBROKESHIRE SA64 0LJ	
Reading Agricultural Consultants Ltd Gate House Beechwood Court Long Toll Woodcote RG8 0RR Tel: 01491 684233 Fax: 01491 680800 www.readingagricultural.co.uk	
Drawing No. AL	Ch. No. PWD
Scale N.T.S.	Date July 2014
Rev. RAC/6199/PM/1	

Pembroke Park, County
 Carmarthen, Wales

22 JUL 2014

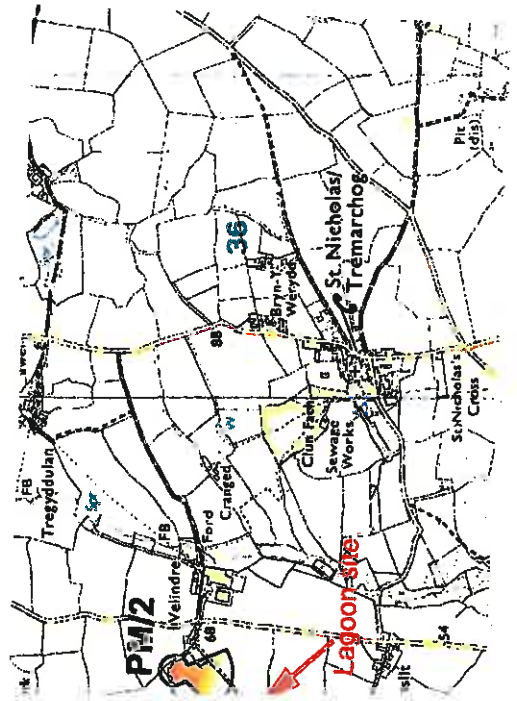
Lagoon banktop shown by red line

Lagoon banktop shown by green line (grass)
 with dark fill for surface of lagoon.

Proposed hedges

Existing 11.5m allowed to grow to twice existing height (approx 2.5-3m)

Camera Type: Apple iPhone (not appropriate focal length to represent human eye - zoom effect)
 Date/Time: 15 July 2014, 17:13pm
 Grid reference: SM 88162 36187
 Map point height: 73m AOD
 Distance from development (slurry lagoon): 250m

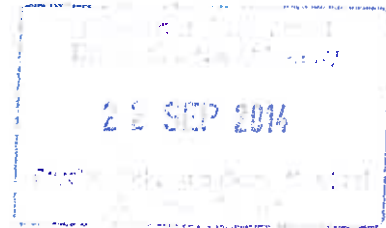


DRAWING TITLE	
PM2 - BEFORE/AFTER PHOTOMONTAGE OF SITE FOOTPATH NORTH OF LAGOON	
CONTRACT	
MR D HARRIES VELINDRE FARM ST NICHOLAS PEMBROKESHIRE SA64 0LJ	
Reading Agricultural Consultants Ltd Gate House Beechwood Court Long Toll Woodcote RG8 0RR Tel: 01491684233 Fax: 03491 688800 www.readingagricultural.co.uk	
Drawn AL	Ch'kd. P.W.D.
Scale N.T.S.	Date July 2014
Rev. RAC/6199/PM2	



**NP/14/0311- Proposed cattle accommodation building,
associated yard area & slurry lagoon- Velindre, St
Nicholas, Goodwick, Pembrokeshire, SA64 0LJ**

**Information received since last Development Management
Committee in September 2014**



**Planning Application for
Cattle Accommodation Building, Open yard Area
and Slurry Lagoon
at**

**Velindre Farm,
St Nicholas,
Pembrokeshire,
SA64 0LJ**

**Additional Information for
Development Management Committee**

September 2014



**Reading Agricultural Consultants
Beechwood Court,
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Introduction

1. This report has been prepared by Reading Agricultural Consultants Ltd (RAC) in response to queries raised in the Development Management Committee meeting on the 10th September 2014. Those queries relate specifically to the independent assessment of the application which was prepared by William Waterfield of the Farm Consultancy Group.
2. Mr Waterfield's report, which was submitted to the National Park Authority /Councillors on the 4th September 2014, raised doubt over a number of elements of the application. The following response seeks to clarify or dismiss the issues raised, and deals briefly with each of the issues in the order they appear in the Waterfield report.
3. Comments regarding the impartiality of Mr Waterfield's report from other members of the Farm Consultancy Group are provided in Appendix 1.

Manure Management Plan (Section 1 of Waterfield Report)

4. A manure management plan for Velindre Farm has been prepared and is included at Appendix 2 of this report.
5. In summary:
 - the Applicant has ample land on which to spread slurry in line with good agricultural practice (max 250kg/Nitrogen(N)/ha/year);
 - the farm has 403ha available for spreading. The minimum area required to spread slurry arising from all animals at the farm (at a rate of 250kg/N/ha) is 394ha;
 - all of the land over which slurry is to be spread by the applicant is outside a designated Nitrate Vulnerable Zone (NVZ), as is the majority of Wales. It is extremely unlikely due to its location and climatic characteristics that the farm or the wider National Park would be included in an NVZ, and all comments relating to NVZs are strictly irrelevant to this location and should be ignored; and
 - the farm is part of "The Red Tractor Assurance Scheme" under which a manure management plan is a pre-requisite.

Rainfall Data (Section 2 of Waterfield Report)

6. In summary:

- the planning application used the nearest available online 30-year average Meteorological Office data which was Aberporth. The rainfall data provided in the Waterfield report for Fishguard has been used in all subsequent slurry storage and slurry traffic calculations. The effect of using different data is to increase the volume of slurry to be applied to land, it does not have any impact on the total amount of nitrogen produced on the farm.

Whole Farm Nitrogen Loading (Section 3 of Waterfield Report)

7. The whole farm nitrogen loading fall all stock housed at the farm has been calculated using standard data¹ and is included in Table 2 of the manure management plan included in Appendix 2. These calculations have been accepted by Natural Resources Wales (NRW).

8. In summary, the calculations show that:

- the farm requires 394ha of land to spread the nitrogen arising from the livestock in line with good agricultural practice;
- the figures assume that heifers and dry cows are housed for five months of the year and grazed outside during the remaining 7 months. Milking cows and calves under three months are housed; and
- see paragraph 5 with regards to reference to NVZ's

Storage Requirement and Dirty Water (Section 4 of Waterfield Report)

9. In order to meet the requirements of the Water Resources (Control of Pollution) (Silage, Slurry and Agriculture Fuel Oil) (Wales) Regulations 2010 (SSAFO), the farm is required to have 120 days continuous storage of slurry arising from the farm². Calculations (which have been verified by NRW) for the existing and proposed herd are provided in Appendix 3, and are summarised below:

¹ Provided in Table 1 of *Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3'* - Defra/Environment Agency, April 2009

² Using likely winter rainfall figures (November to February) as required by SSAFO.

- the farm currently has capacity to store approximately 78 days of slurry arising from the existing herd. This does not meet the requirement of SSAFO and so in any event the farm needs additional slurry storage capacity; and
- the new lagoon would provide 56-days more storage than that required by SSAFO for the proposed herd;

Net Spreadable Area (Section 5 of Waterfield Report)

10. The net area available for spreading is 403ha as demonstrated in the manure management plan provided in Appendix 2. The figures provided in the Waterfield report are based on inaccurate assumptions.

Surplus Slurry (Section 6 of Waterfield Report)

11. This section is summarised as follows:
- incorrect assumption that spreading area at Velindre Farm is 120ha- manure management plan shows 231ha;
 - nitrogen figure in report includes youngstock which are housed off-site at satellite farms; and
 - additional 5,055m³ 'dirty water' referred to in report water includes rainwater incident to off-site slurry stores. Effect on number of slurry movements detailed below.

Traffic Movements (Section 7 of Waterfield Report)

12. There would be 75 fewer traffic movements after the construction of the proposed development than are experienced during current spreading campaigns. Full details of the slurry spreading movements are provided in Appendix 4.
13. Assumptions made when calculating the slurry spreading movements are as follows:
- slurry would be spread at an even rate across all of the land available;
 - the area of spreading land for the existing calculations is for the farm prior to the current planning application;
 - there was 139ha available for spreading at Velindre Farm using umbilical equipment prior to the application, and 231ha available if the development goes ahead;

- a four month winter rainfall storage period has been used as this provides the most typical dilution rate on which the standard spreading figures³ are based;
- the slurry tanker size used in slurry spreading is for the farm prior to the current planning application;
- forecast traffic movements assume that slurry is stored for the SSAFO likely winter rainfall period and spread without storage for the remaining eight months;
- any increased rainfall falling on the lagoon during an extended storage period would dilute the slurry, reducing the level of nitrogen/m³. The period of storage in the new lagoon would not affect traffic movements as it would be possible to spread this slurry at a greater rate than 83m³/ha;
- summer rainfall falling on the empty lagoon could be spread directly to land as this does not contain any nitrogen; and
- differences between the figures provided in Appendix 4 and those provided prior to the Committee Meeting of the 10th September 2014 are due to changes to the four month rainfall figures which increase the volume of slurry produced and an increase in the available spreading land.

Odour (Section 8 of Waterfield Report)

14. The level of odour arising from slurry spreading operations is similar to any other dairy operation. The position of the lagoon accords with the Pembrokeshire Coast National Park's best practice guidance⁴ which takes account of emptying operations on nearby properties.
15. Slurry spreading or lagoon emptying would be sufficient to form a statutory nuisance as defined by Natural Resources Wales.

Crops and time of Spreading (Section 9 of Waterfield Report)

16. The application would increase the level of storage at Velindre Farm to almost six months. This provision is greater than the amount of slurry storage of the significant

³ Provided in Table 7 of *Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3'*

⁴ Pembrokeshire Good Practice Guidance: Slurry Stores January 2013

majority of other dairy farms, and allows the holding to use the nutrients effectively in line with Codes of Good Agricultural Practice⁵.

Other Vehicle Movements (Section 10 of Waterfield Report)

17. The daily ration used to calculate the feed traffic movements is provided in Appendix 5. These figures have been multiplied by the number of cows and then divided by the capacity of the HGV's and tractor/trailers.
18. The high level of silage in the ration in comparison to some dairy diets is due to the quality of the (award winning) silage produced at the farm.

⁵ Defra (2009), Protecting our Water, Soil and Air - A Code of Good Agricultural Practice for farmers, growers and land managers

APPENDIX 1: Comments from members of Farm Consultancy Group

Alex Lawrence

Subject: FW: Velindre

Cled Richards <cledrichards@fcgaqric.com>

From:
To: [REDACTED]
Date: 12/09/2014 09:42
Subject: Velindre

Dear [REDACTED],

I am now clearer as to the work that William Waterfield has completed and have seen the report.

Firstly I am embarrassed and angry that William as a member of FCG has completed this work. Although William Waterfield states that at no stage does he criticise the scale of the proposal or the development of larger dairy unit in principal, the report has been used in opposition to the application. Regardless of the information submitted by RAC, the impression given is that the Farm Consultancy Group is opposing this application. I will bring this up with the board of FCG as something which is not acceptable. This is not just because the application is not in William's patch, this is simply not the type of work we should do.

Secondly, my view of the report is that it is full of assumptions, and some statements are irrelevant and incorrect (e.g. NVZ). The report picks holes in the RAC report and then assumes a correct calculation, which cannot be done as a 'desk top' or 'over the hedge' exercise. My view is that it is not an independent assessment as it states it is and can therefore be rubbish.

If there is any merit in doing so, I am happy to provide a covering letter or 'fact sheet', of the relevant information, which could be used as correct supporting information i.e. point out the inaccuracies on William Waterfield's report. However I am also aware that this could complicate things further.

I am happy to meet up with Daniel to discuss the above and provide whatever support he needs for this application.

Regards

Cled.

Cled Richards T/A AGRI-ANGELS LTD A member of the Farm Consultancy Group of independent agricultural consultants

Cled Richards
The Farm Consultancy Group
Efail Fach
Llanddarog Road
Capel Dewi
Carmarthen
SA32 8AJ
Tel / Ffon: 01267275450

Alex Lawrence

Subject: FW: Velindre Farm

From: Huw Thomas
Sent: 15 September 2014 17:14
To: Cled Richards
Subject: Velindre Farm

Cled,

Having looked at both reports, these are the points which I consider to be valid;

- The Farm Consultancy Group report completed by William Waterfield of White & Waterfield Ltd (WW Ltd) cannot be considered to be an 'Independent Assessment' of the proposals at Velindre as it has been funded by a local action group which is clearly opposing the expansion of the dairy enterprise and slurry lagoon.
- The WW Ltd report is primarily based on Nitrate Vulnerable Zone legislation which is not applicable to the area; subsequently the majority of the arguments against the proposal are irrelevant.
- The WW Ltd report makes a number of unsubstantiated assumptions about the vital statistics of the holding without providing definitive references i.e. spreadable area, content of Nitrogen in slurry, stock numbers.
- The business is not required to provide a Manure Management Plan or a Nutrient Management Plan to support a planning application. The business is a member of an accredited Farm Assurance Scheme and has an up to date Manure Management Plan which it adheres to.
- We do not agree with the WW Ltd report statement *'The area of land subject to Nitrogen Vulnerable Zone restrictions in Wales is currently very small and only applies to small extremely sensitive areas. National Parks by definition are sensitive areas and the impact of designating the Pembrokeshire Coastal Park as a Nitrate Vulnerable Zone should be considered in any application'*. One of the main consequences of having an NVZ designation in a National Park area would be the increased requirement for slurry storage on livestock farms to accommodate the increased slurry storage requirement for the closed spreading period. It is therefore fair to assume that were the Pembrokeshire Coastal Park designated an NVZ area every dairy farm would need to increase their slurry storage in excess of 5 months. This would mean that an application such as this one would be common place.
- On numerous occasions the WW Ltd report refers to the area of land available for spreading (which differs on more than one occasion) and the amount of manure which needs to be exported from the holding in order to meet various compliance standards, including the NVZ legislation which is not relevant. The area of land available is clearly outlined in Note 32 of the Reading Agricultural Consultants (RAC) report as 345 Ha. The WW Ltd report again outlines the implications of an NVZ designation which is irrelevant
 Section 5 of the WW Ltd report firstly states that the total farm area is 280 Ha and the assumed spreadable area is 200 Ha. Note 32 of the RAC report clearly outlines that the area of land currently utilised by the business for spreading slurry whether owned, rented etc is 345 Ha. Section 5 of the WW Ltd report also states that after the proposed slurry store is constructed the utilisable area will decrease from 160 Ha to 150 Ha. The proposed slurry lagoon will extend to 0.44 Ha, not 10 Ha.

- Section 5 of the WW Ltd report also states that the spreadable area is estimated at 200 Ha, however the report continuously states after this point that the area available is 120 Ha. The land area calculations used in the WW Ltd report do not appear to be based on any actual areas available.
- SAFFO Regulations 1991 (Revised 2010) state that any new structures storing slurry need to store at least 4 months slurry produced by the livestock on the holding. The proposed slurry lagoon at Velindre is anticipated to store some 6 months production.
- The WW Ltd report highlights that no consideration has been given to summer rainfall on to dirty cattle yards. When quantifying storage requirements as part of a manures management plan / storage report, rainfall figures for the storage period (e.g. 4 months) are used. As the summer rainfall is outside the 'storage period' this does not have to be taken into consideration, therefore the RAC report appears to be correct in its' method of calculating.
- Using information provided by the Welsh Government, we calculate the total N produced during the housing period to be approximately 80,000 Kgs of N. When this is divided by the 345 Ha available for spreading slurries and manures the total N per Ha is 232 Kgs N/Ha, which falls within the 250 Kgs/Ha limit. The RAC report suggests that the area required may be as low as 273 Ha assuming an application rate of 83m³/ha.
- There is clearly a great deal of variation within industry figures and calculations used. The only way to guarantee that an accurate figure can be ascertained is to analyse a sample of the animal slurry to confirm the exact N content.
- Section 6 of the WW Ltd report provides an estimation of surplus slurry at Velindre which would be exported; we consider this to be inaccurate as the spreadable area is quoted as 120 Ha. Whilst Velindre Farm itself is 160 Ha in total, the area which is managed by the farm is clearly 345 Ha therefore we would consider the 'farm area' to be 345 Ha not 160 Ha. The WW Ltd report again outlines the implications of an NVZ designation which is an irrelevant argument.
- We disagree with the statement included in Section 7 of the WW Ltd report '*The (RAC) report suggests that the increase in storage capacity provided by the new lagoon will enable more slurry to be spread on the farm*'. The lagoon will allow more slurry to be utilised on the farm by allowing targeted timings of applications to match peak periods of nutrient uptake, i.e. late winter and spring for increased N uptake. Currently, due to restricted storage facilities, it is not possible to store all slurry until late winter and therefore slurry is spread intermittently throughout winter. The WW Ltd report again outlines the implications of an NVZ designation.
- When considering the proximity of the holdings to the proposed site of the lagoon, it is more likely that future movements of slurry from the towers to the lagoon will be done via umbilical pipes rather than by tractor and tankers. This would increase the speed of which the slurry is moved and reduce traffic impact significantly.
- The WW Ltd report states that vehicle movements associated with moving slurry is underestimated by a factor of 5. This is incorrect. Although slightly higher, our calculations are comparable to the RAC report.
- It is unlikely that the RAC report would have underestimated the number of vehicle movements by a figure as significant as 50% as stated by the WW Ltd report. We appreciate that this may be an area which is particularly difficult to estimate accurately, however we estimate that the number of probable vehicular movements will be comparable to the RAC figures.
- Odour impact is likely to be less after the proposed slurry lagoon is constructed. The WW Ltd report states that before slurry is spread the lagoon will have to be stirred hence releasing odorous gases. Currently slurry is spread on a regular basis i.e. for 12 hours on a monthly basis. Once the lagoon is constructed and operational, slurry spreading will be a less frequent operation but for longer periods i.e. for 24 hours every two months, therefore the odour impact is likely to be reduced.

- Section 9 of the WW Ltd report again refers to NVZ and potential N losses. However, there is no mention of the potential gain in increased utilisation of other nutrients and the resultant environmental benefit or cost saving to the business.
- In summary based on the above our view is that the conclusions of the WW Ltd report provide an inaccurate view of the impact of the proposed expansion.
Huw.

Huw Thomas

AgriAngels Ltd

Efail Fach, Llanddarog Road, Carmarthen. SA32 8AJ

huwthomas@fcgagric.com

Tel: (01267) 275 778

Fax: (01267) 275 502

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APPENDIX 2: Manure Management Plan

**Planning Application for
Cattle Accommodation Building, Open yard Area
and Slurry Lagoon
at**

**Velindre Farm,
St Nicholas,
Pembrokeshire,
SA64 0LJ**

Slurry Spreading and Water Pollution Management Plan

September 2014



**Reading Agricultural Consultants
Beechwood Court,
Long Toll,
Woodcote
RG8 0RR**

Tel: 01491 684233

www.readingagricultural.co.uk

1 INTRODUCTION

- 1.1 Reading Agricultural Consultants Ltd (RAC) has updated this manure management plan to accompany a planning application for a Cattle Accommodation Building and Slurry Lagoon at Velindre Farm, St Nicholas, Pembrokeshire.
- 1.2 The plan seeks to ensure that the effects of the farming activity at Velindre Farm on surface waters is minimised through the laying out of recommended working practices, and contingencies to be implemented in the event of a potential pollution event.
- 1.3 The plan comprises:
- a manure and slurry management plan, describing how the environmental effects of the storage and spreading of slurry arising at and on the farm can be minimised;
 - a description of Integrated Fertiliser Management Planning (IFMP); and
 - recommended working practices for the storage and handling of manure and slurry and other potential pollutants, and contingencies to be implemented in the event of spillage in order to protect the water environment.
- 1.4 The plan will ensure that all slurry and other manures arising from farming operations will be applied in an effective and responsible way, and integrated with overall fertiliser use in line with the principles of Integrated Crop Management (ICM), as advocated by LEAF (the Linking Environment and Farming initiative).
- 1.5 Whilst EC Directive 96/61/EC concerning Integrated Pollution Prevention and Control (IPPC) has no immediate bearing on the proposed operations at Velindre Farm, the scope of permitting regime associated with the Directive may be extended to include large dairy farms within the 50 year design life of the development. IPPC aims to prevent or reduce pollution "in order to achieve a high level of protection of the environment." This is accomplished through implementing measures that prevent emissions to air, water or soil wherever practicable through a permitting regime, or minimise them, in order to achieve a high level of protection for the environment as a whole.
- 1.6 The Directive requires that best available techniques be used in taking all appropriate preventative measures against pollution, i.e. those measures that can be viably implemented in the industry, taking into account the costs and benefits. This principle has been adopted throughout the design process for the development, and improvements in environmental management techniques would continue to be adopted throughout the life of the development.

2 Manure and Slurry Applications

- 2.1 The application of manure and slurry to land will be carried out bearing in mind the requirements of Nitrate Pollution Prevention (Wales) Regulations 2008¹ (which do not currently apply at this site) and Cross Compliance², and the recommendations of the Code of

¹ SI 3143. *Agriculture, Wales. Water, Wales, The Nitrate Pollution Prevention (Wales) Regulations (2008)*

² SI 540 *The Common Agricultural Policy Single Payment and Support Schemes Regulations (2010)*

Good Agricultural Practice for farmers, growers and land managers, Protecting our Water Soil and Air³.

2.2 The Nitrate Pollution Prevention Regulations require that:

- organic manure should not be applied to land at a rate greater than 250kgN/ha in any 12 month period, whilst the total loading of nitrogen in livestock manure, including that deposited by grazing animals, should not exceed a loading limit of 170kgN/ha per year. The calculation of compliance limits will follow a defined process and records of calculations will be maintained to demonstrate such;
- organic manures with high readily available N content (greater than 30%) should not be applied during defined closed periods, those periods being:
 - 1st September to 31st December on grassland; and
 - 1st August to 31st December on tillage land unless a crop is to be sown on or before 15th September, in which case applications will be permitted between 1st August and 15th September inclusive.

(These restrictions do not apply to the solid fraction of cattle slurry, which has in the region of 25% readily available N⁴)

- a risk map of spreading land has been prepared to show spreading risks and will be maintained in the event of changes in circumstances;
- a field inspection will be carried out before spreading;
- operators should comply with non-spreading areas and conditions; and
- organic manures should be incorporated into bare soil or stubble where appropriate.

2.3 In order to ensure that the proposed dairy complies with the requirements of the Nitrate Pollution Prevention Regulations, the maximum stocking levels and associated nutrient production is calculated using the values shown in the table below:

³ Defra *Protecting our Water Soil and Air: A Code of Good Agricultural Practice for farmers, growers and land managers* The Stationery Office (2009)

⁴ Defra *Fertiliser Manual (RB209) 8th Edition* The Stationery Office (2010)

Table 1 Nitrogen Arising from the Proposed Herd

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	12-Month total
Nitrogen per cow (kg/month) ¹	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583
No of cubicle housed milking cows	860	860	860	860	860	860	730	730	730	730	730	730	730
Nitrogen produced (cubicles) (kg/month)	8,242	8,242	8,242	8,242	8,242	6,996	6,996	6,996	6,996	6,996	6,996	6,996	6,996
Nitrogen per calf (1-2 months) (kg/month) ²	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700
No of housed (1-2 month) calves	36	36	36	36	36	36	36	36	36	36	36	36	36
Nitrogen produced (heifer calves) (kg/month)	25	25	25	25	25	25	25	25	25	25	25	25	25
Nitrogen per heifer calf (3-12 months) (kg/month) ³	2,900	2,900	2,900	2,900	2,900	2,900	179	179	179	179	179	179	179
No of housed (3-12 month) heifer calves	179	179	179	179	179	179	179	179	179	179	179	179	179
Nitrogen produced (heifer calves) (kg/month)	519	519	519	519	519	519	519	519	519	519	519	519	519
Nitrogen per breeding replacement (13-24 months). (kg/month) ⁴	5,083	5,083	5,083	5,083	5,083	5,083	215	215	215	215	215	215	215
No of housed (13-24 months) heifers	215	215	215	215	215	215	215	215	215	215	215	215	215
Nitrogen produced (breeding heifers) (kg/month)	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093
Nitrogen produced herd (kg/month)	9,879	9,879	9,879	9,879	9,879	9,879	7,021	7,021	7,021	7,021	7,021	7,021	98,541
Minimum spreading area (Ha) ⁵													394

¹using figure for high yielding cows >9000l divided by 12. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3'. Defra/Environment Agency, April 2009

²using figure for 1 calf (all categories) up to 3 months divided by 2. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3'. Defra/Environment Agency, April 2010

³using figure for dairy cow from 3 months and less than 13 months divided by 10. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3'. Defra/Environment Agency, April 2009

⁴using figure for dairy cow from 13 months up to first calf divided by 12. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3'. Defra/Environment Agency, April 2009

⁵using 250kg N/ha. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3'. Defra/Environment Agency, April 2009

- 2.4 The table below shows the landholdings and areas over which spreading agreements have been put in place in order to satisfy the requirements of the Regulations:

Table 2 Velindre Farm Available Spreading Land

	Farm Name	Total area (ha)	Land suitable for spreading (ha)	N capacity (kg) (@250kg/ha)
Velindre Farm land block	Velindre Farm	142	139	34,716
	Spreading land at Caersegan*	59	59	14,824
	Spreading land at Pen-y-groes and Llanferran*	33	33	8,293
Satellite land blocks	Woodlands Farm	74	73	18,294
	Penysgwarne Farm	103	98	24,579
	Total	411	403	100,706
	Required spreading area (@250kn/N/ha)	394	ha	
	Surplus area	9	ha	

*Some or all land spread under spreading agreements

- 2.5 The majority of the spreading (up to 57%) is carried out within the land block adjacent to Velindre Farm which can be spread using umbilical equipment.

3 Water

- 3.1 Assessment of spreading risk as required by the Regulations is based on the principles laid out in the Code of Good Agricultural Practice for the Protection of Water: The Water Code and separate guidance produced by Defra⁵, and is expressed as the four categories shown below:

Table 3 Spreading Map Category Key

Category	Risk of Run-off	Recommendation
RED	Extremely high/ Exceptionally high	No spreading at any time.
ORANGE	Very High	No spreading when the soil is at field capacity, or a range of conditions apply
YELLOW	High	Limited amounts of manure can be spread at all times
GREEN	Low.	Manure can be spread with care at all times

- 3.2 Plans of spreading land have been produced and are appended to this document; a master copy will be kept available in the farm office, as well as in the form of cab cards, which will be given to operators to enable the risk category of any area to be assessed and spreading of liquid slurry or solids adjusted accordingly.

⁵ Manure Management Plan: a step-by-step guide for farmers, Defra (2003)

- 3.3 In addition to direct regulatory requirements, the following practices will be adopted as being the best available techniques available for the avoidance of pollution of the water environment.
- 3.4 When required, solid manure storage areas will be identified as required and designated to suit the availability of spreading land, according to planned cropping, in line with the requirements of Cross Compliance. Storage areas would not be located either on land that is under-drained, or at any site where there is a significant risk of pollution to surface, or groundwaters, or nuisance to neighbours.
- 3.5 The preferred options for solid store design are linear, headland stores at sites where tractors and trailers can run in one direction only in order to minimise disturbance or along lines of change in cropping within fields.
- 3.6 Heaps will be well-packed and A-shaped: Heaps of this design will shed the maximum amount of incident rainfall whilst allowing its contents to remain aerobic, so minimising odorous emissions. Careful construction will also minimise the area taken up with storage heaps, provide easy access in most weather conditions and enable stores to be constructed with minimal machinery movement and therefore limit damage to soil.
- 3.7 The use of well-organised and structured heaps will allow the volume and nutrient content of stores to be accurately assessed and application rates set to ensure that the correct volume of material is applied to land within the guidelines of Good Agricultural Practice and requirements of Regulations.
- 3.8 Whilst the risk of causing pollution by the application of solid manures to land is low, surface run-off can happen if rain falls soon after manure has been spread. In order to reduce this risk, solid manures will not be spread above the recommended rate of 50 tonnes/ha at one time.
- 3.9 Applications of slurry will only be made at times when soil conditions permit its application by injector or its incorporation within a few hours, to limit risk of runoff. No more than 50m³/ha of slurry will be applied at any one time for similar reasons. Applications will also comply with the Livestock Manure N Farm Limit and the Organic Manure N Field Limit and any control that may apply at the time, as required by Regulation. The nutrient content of applications will be consistent with anticipated crop requirements as laid out in RB209, the Fertiliser Manual.
- 3.10 Watercourses adjacent to spreading areas will be checked when rainfall follows within 24 hours of application, and applications will not be undertaken when heavy rain is forecast within the following 48 hours.

4 Spreading Methods

- 4.1 All organic manures arising at Velindre Farm will be applied to land using :
- rear discharge spreaders with vertical beaters, in the case of solid material; or
 - tractor-mounted, umbilical fed, or tanker-mounted trailing shoe equipment.

- 4.2 Where material is applied to that surface of bare land, it will be incorporated within 24 hours of application.

5 Integrated Fertiliser Management Planning

- 5.1 The principles of Integrated Fertiliser Management Planning (IFMP) and Integrated Crop Management (ICM) are intended to reduce applications of artificial fertiliser to farmland, by taking into account, the nutrients applied to land, in the form of organic manures such as slurry and farmyard manure. The benefits of the technique are both economic and environmental. Reduced artificial inputs have a lower financial cost and applications, tailored to crop requirements, reduce the amount of surplus nutrients that may leach away from the area of application. Integrated Fertiliser Management (IFM) is designed to reduce diffuse nutrient pollution, being the logical step on from manure and slurry management, which is intended to reduce the risk of acute pollution of ground and surface waters.
- 5.2 The quantities of any range of nutrients contained in all organic manures applied to agricultural land take into account crop nutrient requirements when specifying applications of artificial nutrients.
- 5.3 The timing and method of application, and where appropriate post-application cultivations, are specified to reduce the amount of nutrients lost to the wider environment.
- 5.4 Records will be kept of the following information:
- The name of each field receiving manure;
 - Its soil type;
 - The type of manure applied.
 - The month of application;
 - The total quantity of manure applied;
 - The field area; and
 - An analysis of the nutrient content manure.
- 5.5 As implied above, the amount of N available to a crop following the application of organic manure depends on the type of manure, the timing and method of application. Manures spread in winter and spring will supply more N than those spread in the autumn, because less is lost through the winter, by leaching. It is good agricultural practice to apply manures later in the farming year, so that a greater allowance for organic N than normal can be made.
- 5.6 Table 4 below shows how N contained in manure, applied to individual fields, can be calculated and subsequently taken in account, when specifying applications of artificial fertiliser.

Table 4 Calculation of Available N Applied

<i>Field Name</i>	
Soil Type	
Manure Type	
Month Applied	
Amount Applied	÷
Area	=
Application Rate	x
Total N Content (kg/t or kg/m ³)	=
Total N Application Rate	x
Available N	=
Application of Available N	

Fertiliser Value of Manure

- 5.7 In order to satisfy the requirements of ICM, it is imperative to take into account the fertiliser N value of manure applied to land. Defra-funded research has developed the ADAS MANure Nitrogen Evaluation Routine (MANNER), which draws together most recent UK research information on factors affecting manure N availability to crops, losses *via* ammonia volatilisation and nitrate leaching.
- 5.8 In order to estimate accurately the amount of N likely to be available to plants, the program requires the following inputs:
- total and readily plant-available N and dry matter content of the manure spread;
 - application date and rate;
 - application technique;
 - speed of incorporation; and
 - rainfall between application date and end of drainage.
- 5.9 This enables the losses of N *via* ammonia volatilisation or, where there is sufficient rainfall, over winter losses through leaching to be calculated.
- 5.10 Some of the N remaining will become available to plants over time through mineralisation. MANNER also accounts for likely mineralisation according to manure type and timing of application.
- 5.11 The information is output in the form shown at Table 5 below:

Table 5 *Example* of information from MANNER

<u>MANNER REPORT</u>	
Program run on:	Friday, 4 May 2001
Identification:	Scald Hill
<u>DETAILS GIVEN</u>	
Manure type:	Pig FYM - old
Applied on:	20/09
at a rate of:	32.0t/ha
to:	Sandy loam
over:	Sandy clay loam
and incorporated after:	2 - 6 hours
Total rainfall since application:	280 mm
Effective rainfall since application:	163 mm
The field was ploughed within 1 month	
<u>MANURE COMPOSITION</u>	
Dry Matter %:	24.0
Total N kg/t:	6.5
Ammonium plus Uric Acid N kg/t:	0.6
<u>RESULTS</u>	
Manure N	kg/ha
Total N applied:	208
Potentially available N:	38
Volatilised N:	1
Leached N:	13
N available to the crop:	22

5.12 Alternatively, the percentage of the N applied that will be available to the crop can be estimated taking into account the:

- soil type;
- manure type;
- month of application; and
- method of application.

5.13 The calculation in Table 3 gives the N available to the crop in kg/ha. The crop requirement for fertiliser N, taking into account the release of N by the soil and crop residues (see RB209 the Fertiliser Manual), will be reduced by the amount of N supplied by the organic manure application. This ensures that the N requirement of the crop is not exceeded and that the quantity of N likely to be available for leaching is reduced.

5.14 The percentage of total available N is shown in Table 6, below.

Table 6 Standard values for N available to crops from organic manures.

Manure Type	Total N Content kg/t or kg/m ³	Dry Matter %	Percentage of total N available in year of application					
			Autumn Aug – Oct		Winter Nov - Jan		Spring Feb- Apr	Summer grass
			<i>Sandy or shallow</i>	<i>Other mineral</i>	<i>Sandy or shallow</i>	<i>Other mineral.</i>	<i>Sandy or shallow</i>	<i>Other mineral</i>
SURFACE APPLICATION								
Fresh solids	7	25	5	5	10	15	20	N/A
Stored solids	7	25	2.5	2.5	5	7.5	10	N/A
Slurry	5	2-10	5	10	10	25	35	20
RAPID INCORPORATION or INJECTION								
Fresh solids	7	25	5	10	10	15	25	N/A
Stored solids	7	25	2.5	5	5	7.5	12.5	N/A
Slurry	5	2-10	5	10	15	35	60	60

- 5.15 This clearly confirms that the amount of N available to crops from any application in the year of application increases with later spreading and rapid incorporation or injection, and thus that allowances should be made for timing of applications. The estimation of N content will also allow monitoring of the total amount of organic N applied to land in order to aid compliance with the recommended maximum of 250 kg N/ha/year.
- 5.16 The above calculation can be carried out with greater accuracy in two ways:
- Firstly, by measuring the N content of samples immediately prior to application to land. This method ensures that dilution in-store and losses through volatilisation are taken into account; and
 - by running MANNER which takes into account actual rainfall and more specific soils information.
- 5.17 It is not proposed to apply MANNER to all applications of organic fertiliser at Velindre Farm or to undertake analysis of material on a season-be-season basis. Typical N values of the range of materials to be applied to land will be assessed before applications are made and used in the calculation of any allowance for available N.

Application rates

- 5.18 Application rates for slurry and manure can be calculated using international standards that not only determine the quantity of material applied per unit area, but also the evenness, or *Coefficient of Variation*.
- 5.19 The application rate of slurry is determined by three factors - discharge rate, bout width and forward speed.

- 5.20 Forward spreading speed can be determined once the target application rate has been determined. Calculation is by using the following formula:

$$\text{Forward Speed (km/hr)} = \frac{\text{Discharge rate (m}^3\text{/second)} \times 36,000}{\text{Bout width (m)} \times \text{Application rate (m}^3\text{/ha)}}$$

- 5.21 The discharge rate for vacuum tankers can be readily established by timing the discharge under normal conditions. The discharge rate of a positive displacement pump is governed by the speed at which the pump is driven. The rate of discharge of a centrifugal pump varies according to wear, driven-speed, slurry condition and total pumping head. In order to estimate the centrifugal discharge, either a flow meter should be fitted in the system, or the time taken to empty/fill a container of known volume measured. The bout width of injection and band/trailing shoe spreaders is the width of the machine plus an allowance for overspreading.
- 5.22 The application rate of solid manure is affected by the same factors as slurry and forward speed and is calculated using the same formula, substituting tonnes/second for m³/second. The discharge rate is calculated by timing how long it takes to discharge a full load of known weight. The spreading pattern of rear discharge spreaders is relatively even and the bout width can normally be taken as the effective spreading width.
- 5.23 Application rates will crosschecked by counting the number of loads, and multiplying by the capacity of the machine, to give the volume applied to a field of known area.

APPENDIX 1: Maps of Spreading Areas

IACS Sym

IACS parcel boundary

Parcel boundary for administrative purposes

Item 5(b)

Sea



50m

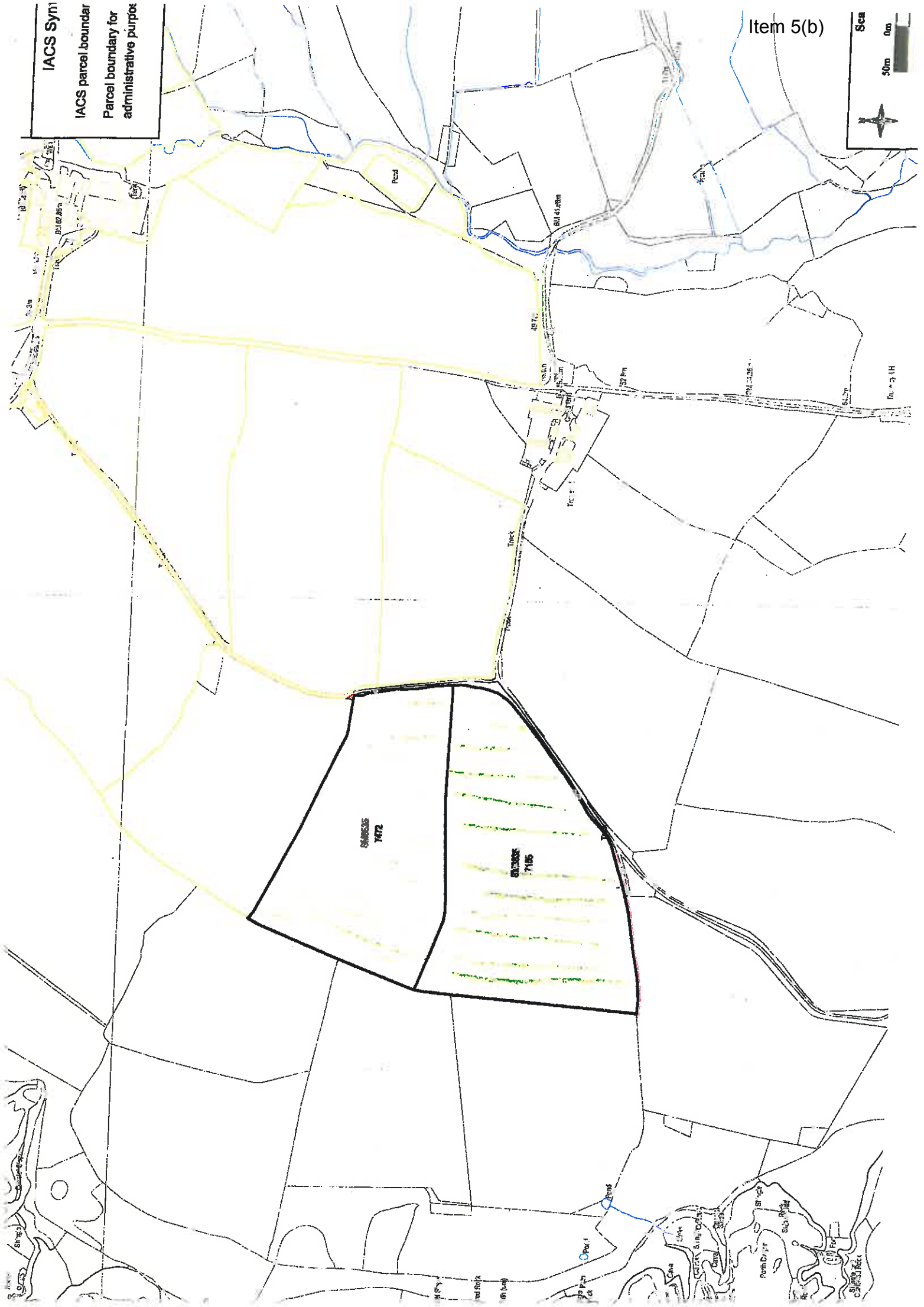
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IACS Syn1

IACS parcel boundary
Parcel boundary for
administrative purposes

Item 5(b)



IACS Sytr

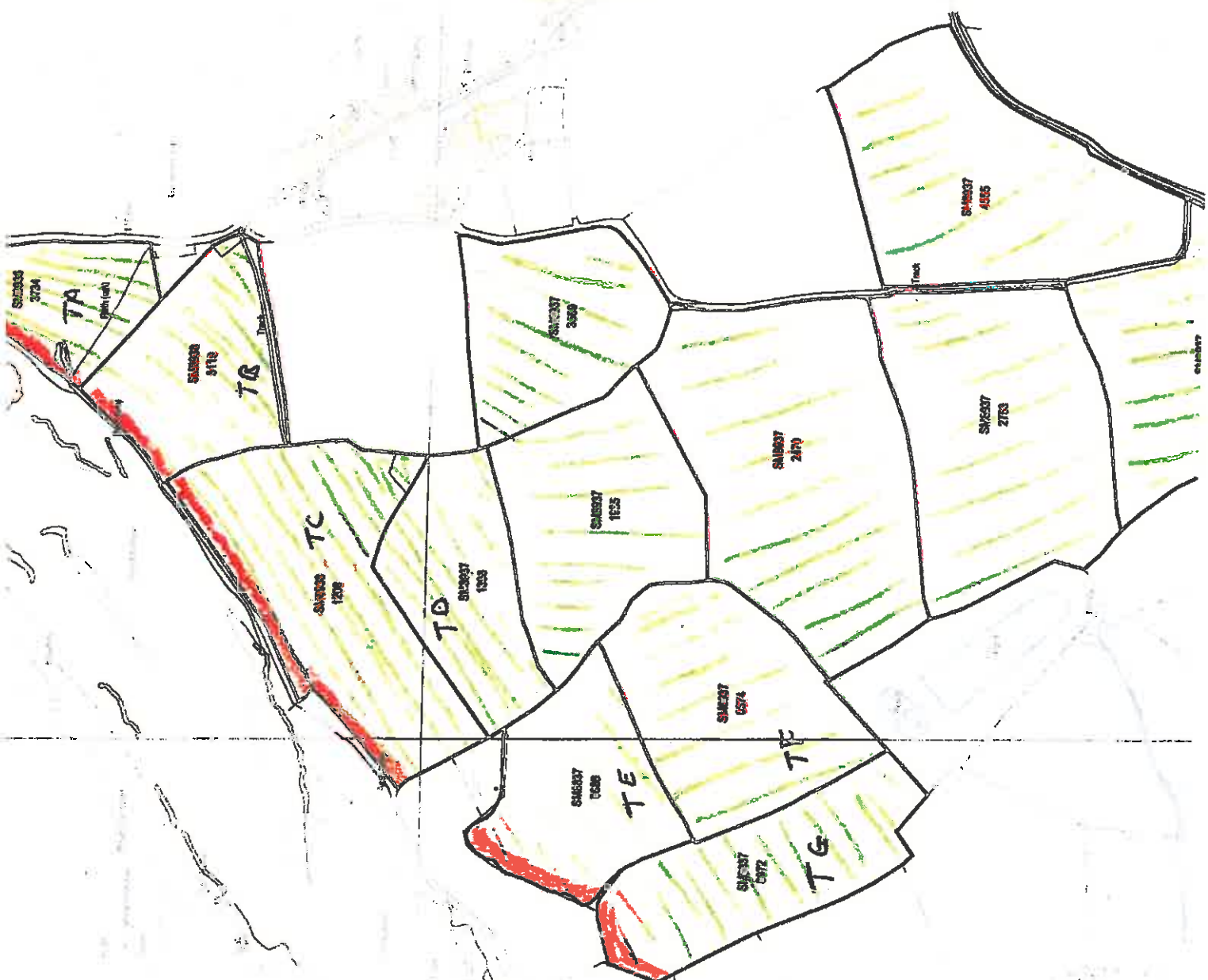
IACS parcel boundari

Parcel boundary for administrative purpo:

Item 5(b)

Scale

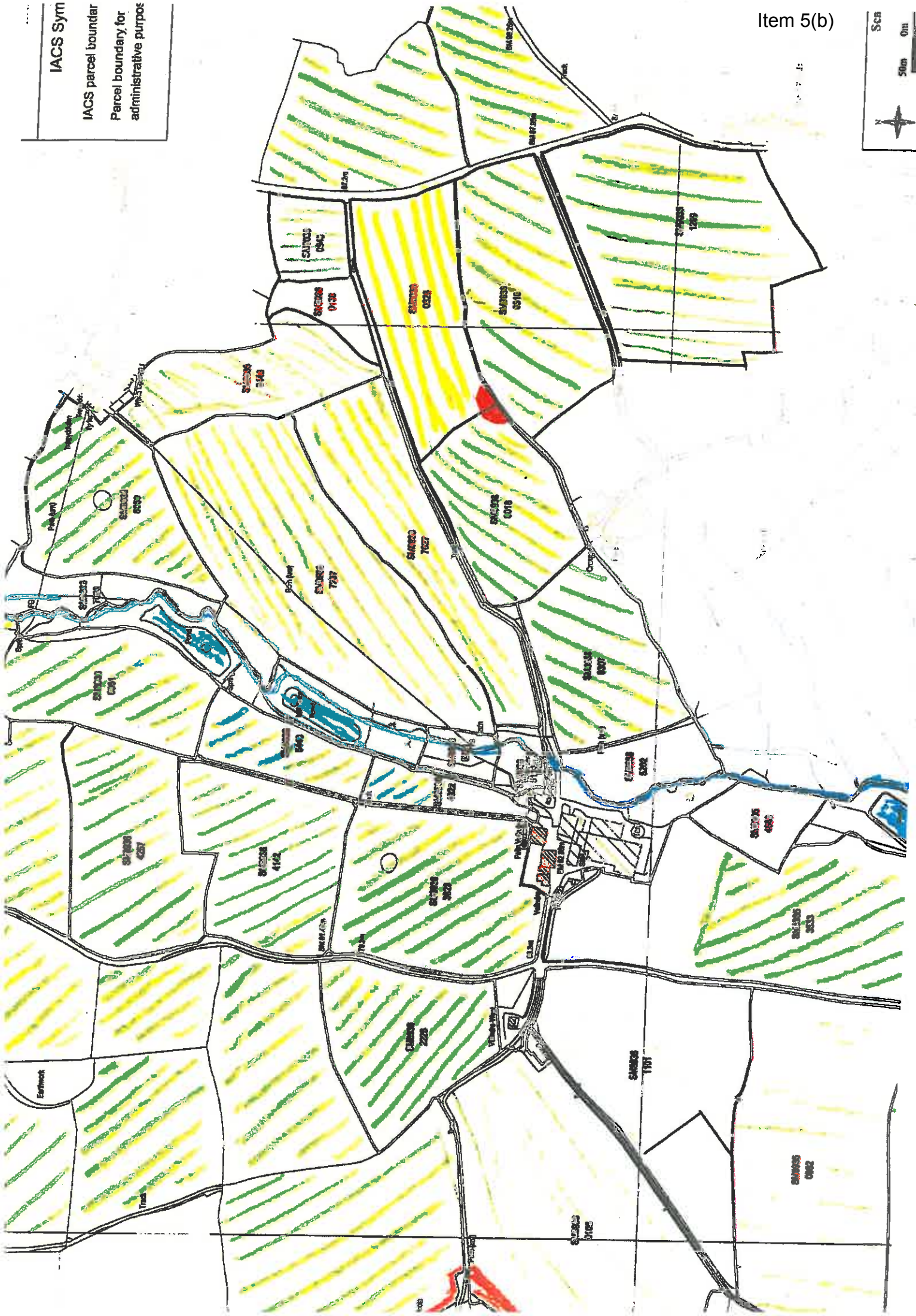
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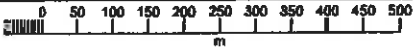
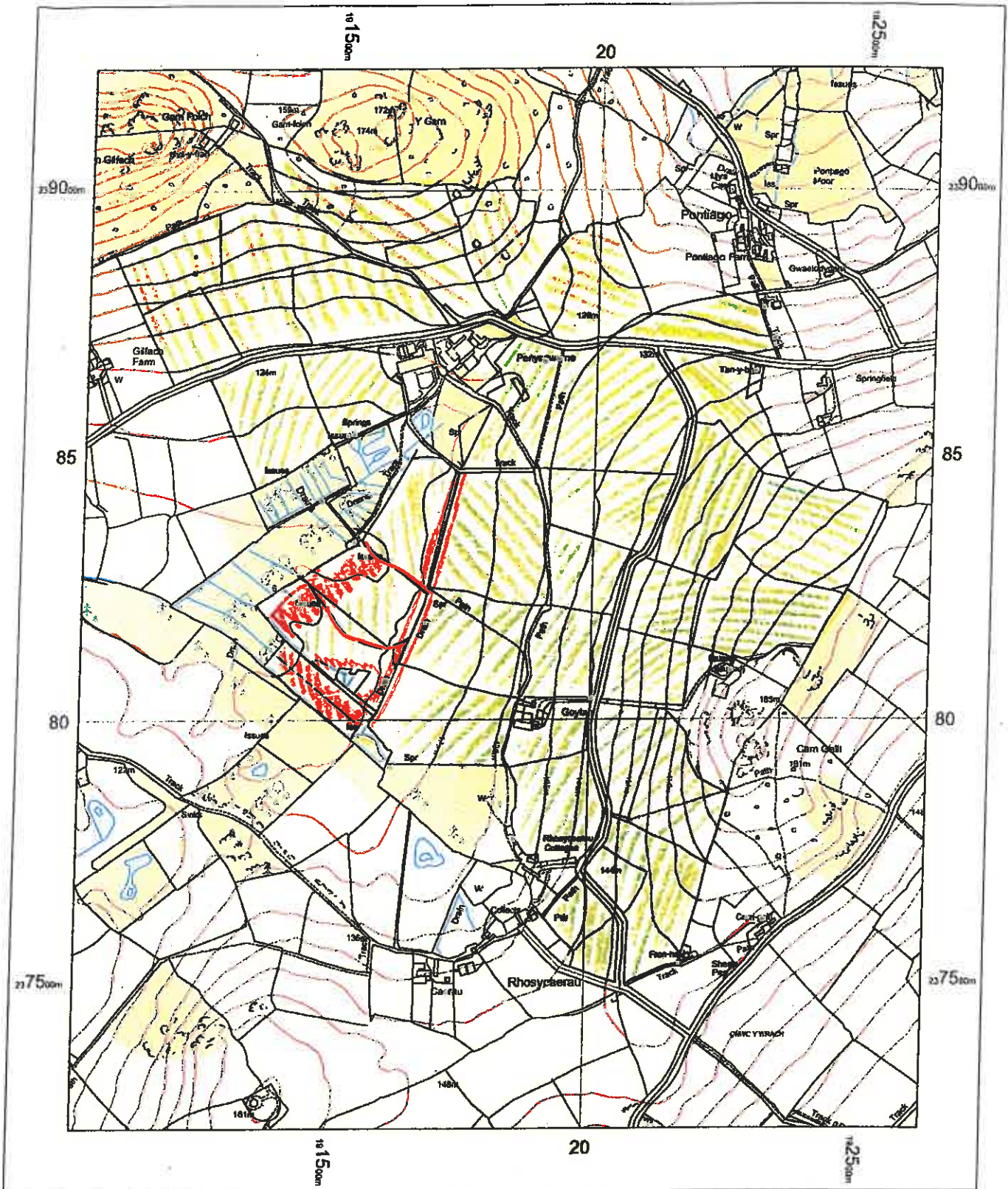




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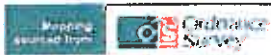
IACS parcel boundary
Parcel boundary for
administrative purposes

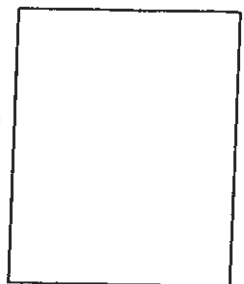
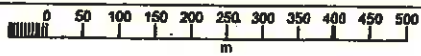
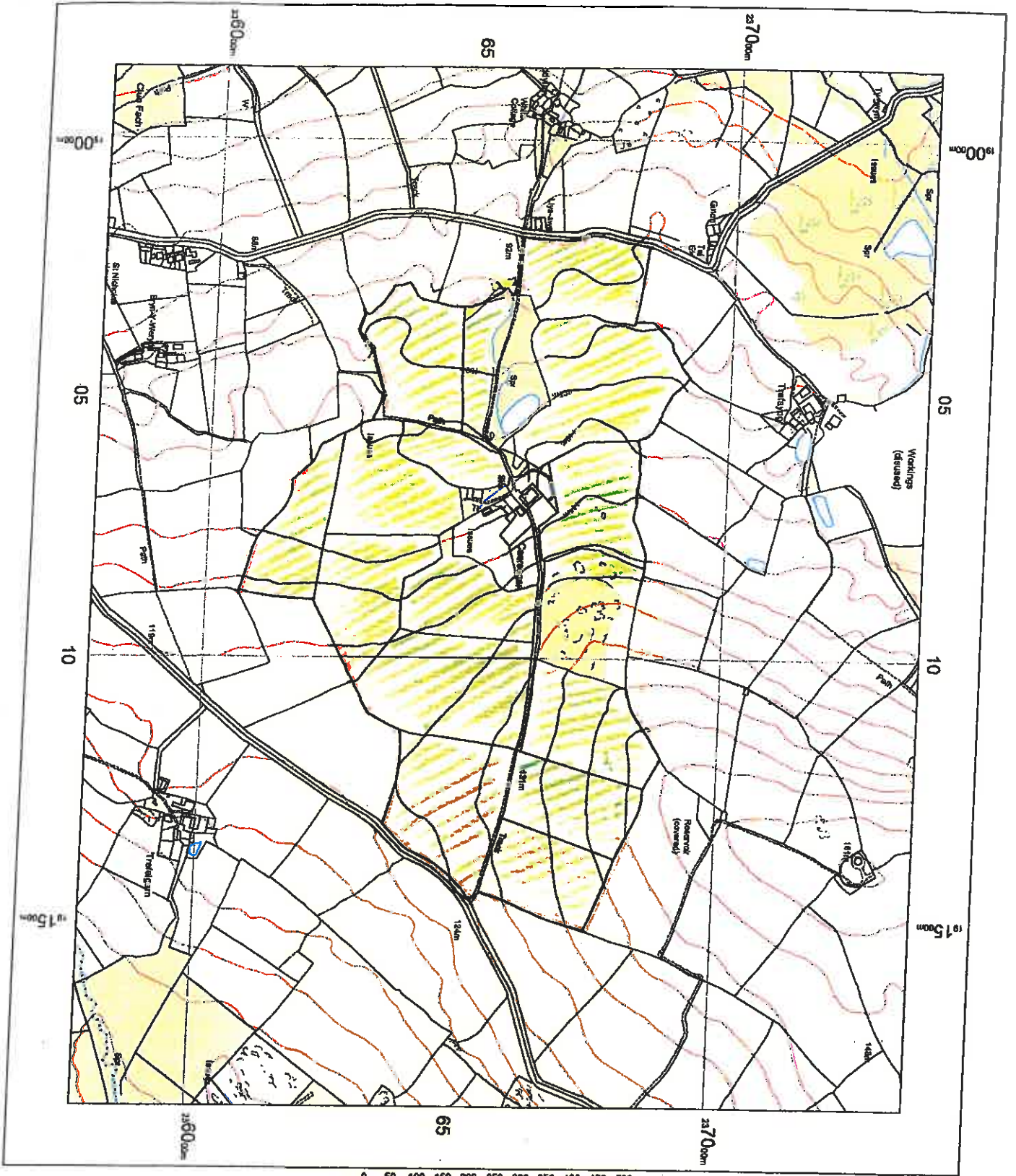




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Style

12 September 2014, ID:

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1 90862 E, 236578 N

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APPENDIX 3: SSAFO storage calculations

Velindre Farm - Slurry storage calculations for existing herd

	November	December	January	February	
Volume slurry per cow. (m ³ /month) ¹	1.92	1.92	1.92	1.92	
No of cubicle housed milking cows	540	540	540	540	
Volume of Slurry produced (cubicles) (m ³ /month)	1,037	1,037	1,037	1,037	
Volume slurry per heifer calf (1-12 months). (m ³ /month)	0.61	0.61	0.61	0.61	
No of housed (1-12) heifers	81	81	81	81	
Volume of Slurry produced (heifer calves) (m ³ /month)	49	49	49	49	
Volume slurry per breeding replacement (13-24 months). (m ³ /month)	1.22	1.22	1.22	1.22	
No of housed (13-24) heifers	81	81	81	81	
Volume of Slurry produced (breeding heifers) (m ³ /month)	99	99	99	99	
Volume of Slurry produced herd (m ³ /month)	1,185	1,185	1,185	1,185	4,740
Herd wash water (m ³ /month) ²	324	324	324	324	1,296
Likely winter rainfall mm ³	120	132	109	74	
Storage surface area (3 towers) (m ²) ⁴	750	750	750	750	
Dirty yard area (m ²) ⁴	600	600	600	600	
Rainwater inputs (m ³)	162	178	147	100	587
Existing storage useable volume (m ³)					4,318
Total Inputs (m³)					6,623
Surplus Storage Capacity (m³)					-2,305

¹ using figure for high yielding cows >9000l. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3' - Defra/Environment Agency, April 2009

² assuming 20l/day/cow water usage. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 4' - Defra/Environment Agency, April 2009

³ As defined by SSAFO: Fishguard annual rainfall data.

⁴ Approximate area of three existing slurry towers.

Velindre Farm - Slurry storage calculations for proposed herd

	November	December	January	February	
Volume slurry per cow. (m ³ /month) ¹	1.92	1.92	1.92	1.92	
No of cubicle housed milking cows	860	860	860	860	
Volume of Slurry produced (cubic metres) (m ³ /month)	1,651	1,651	1,651	1,651	
Volume slurry per heifer calf (1-12 months). (m ³ /month)	0.61	0.61	0.61	0.61	
No of housed (1-12) heifers	129	129	129	129	
Volume of Slurry produced (heifer calves) (m ³ /month)	79	79	79	79	
Volume slurry per breeding replacement (13-24 months). (m ³ /month)	1.22	1.22	1.22	1.22	
No of housed (13-24) heifers	129	129	129	129	
Volume of Slurry produced (breeding heifers) (m ³ /month)	157	157	157	157	
Volume of Slurry produced herd (m ³ /month)	1,887	1,887	1,887	1,887	7,549
Herd wash water (m ³ /month) ²	516	516	516	516	2,064
Likely winter rainfall mm ³	120	132	109	74	
Storage surface area (3 towers) (m ²) ⁴	750	750	750	750	
Storage surface area (proposed lagoon) (m ²)	6,000	6,000	6,000	6,000	
Dirty yard area (m ²)	1,020	1,020	1,020	1,020	
Rainwater inputs (m ³)	932	1,026	847	575	3,380
Existing storage useable volume (m ³)					4,318
Proposed lagoon volume					14,813
Total Inputs (m³)					12,993
Surplus Storage Capacity (m³)					6,138

¹Using figure for high yielding cows >90000. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3'. Defra/Environment Agency, April 2009

²assuming 20l/day/cow water usage. From: 'Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 4'. Defra/Environment Agency, April 2009

³As defined by SSAFO: Fishguard annual rainfall data.

⁴Approximate area of three existing slurry towers.

APPENDIX 4: Slurry Traffic movement calculations

Velindre Farm - Proposed Slurry Traffic Movements

	January	February	March	April	May	June	July	August	September	October	November	December	12 Month total	8 Month unimproved slurry	Total	Volume spread on Velindre (231ha spreading @ 74m ³ /ha) ⁴	Vol to be tankered for spreading	Movements ⁵
Volume slurry per cow. (m ³ /month) ¹	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92			
No of cubicle housed cows	860	860	860	860	860	860	860	860	860	860	860	860	860	730	730			
Volume of Slurry produced (cubicies) (m ³ /month)	1,651	1,651	1,651	1,651	1,651	1,651	1,651	1,651	1,651	1,651	1,651	1,651	6,605	11,213	11,213			
Herd wash water (m ³ /month) ²	438	438	438	438	438	438	438	438	438	438	438	438	1,752	3,504	3,504			
Likely winter rainfall mm ³	120	132	109	74	140	140	140	140	140	140	140	140	629	140	140			
Storage surface area (Velindre tower) (m ²)	140	140	140	140	140	140	140	140	140	140	140	140	140	0	0			
Storage surface area (proposed lagoon) (m ²)	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	1,020	1,020			
Dirty yard area (m ²)	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	1,020	730	730			
Rainwater inputs (m ³)	859	945	780	530	780	780	780	780	780	780	780	780	3,115	730	730			
Total (m³)													11,471	15,446	26,918	17,054	9,864	1,441

¹ Using figure for high yielding cows @2000. From: "Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3" - Defra/Environment Agency, April 2009

² Assuming 20l/day/cow water usage. From: "Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3" - Defra/Environment Agency, April 2009

³ As defined by SSAFO: Fishguard annual ringusage data.

⁴ Using contractors new 13.638m³ tankers for proposed figure

⁵ Assuming slurry spread at equal rate across whole farm.

Assuming 20l/day/cow water usage. From: "Guidance for Farmers in Nitrate Vulnerable Zones - Leaflet 3" - Defra/Environment Agency, April 2009

As defined by SSAFO: Fishguard annual ringusage data.

Using contractors new 13.638m³ tankers for proposed figure

Assuming slurry spread at equal rate across whole farm.

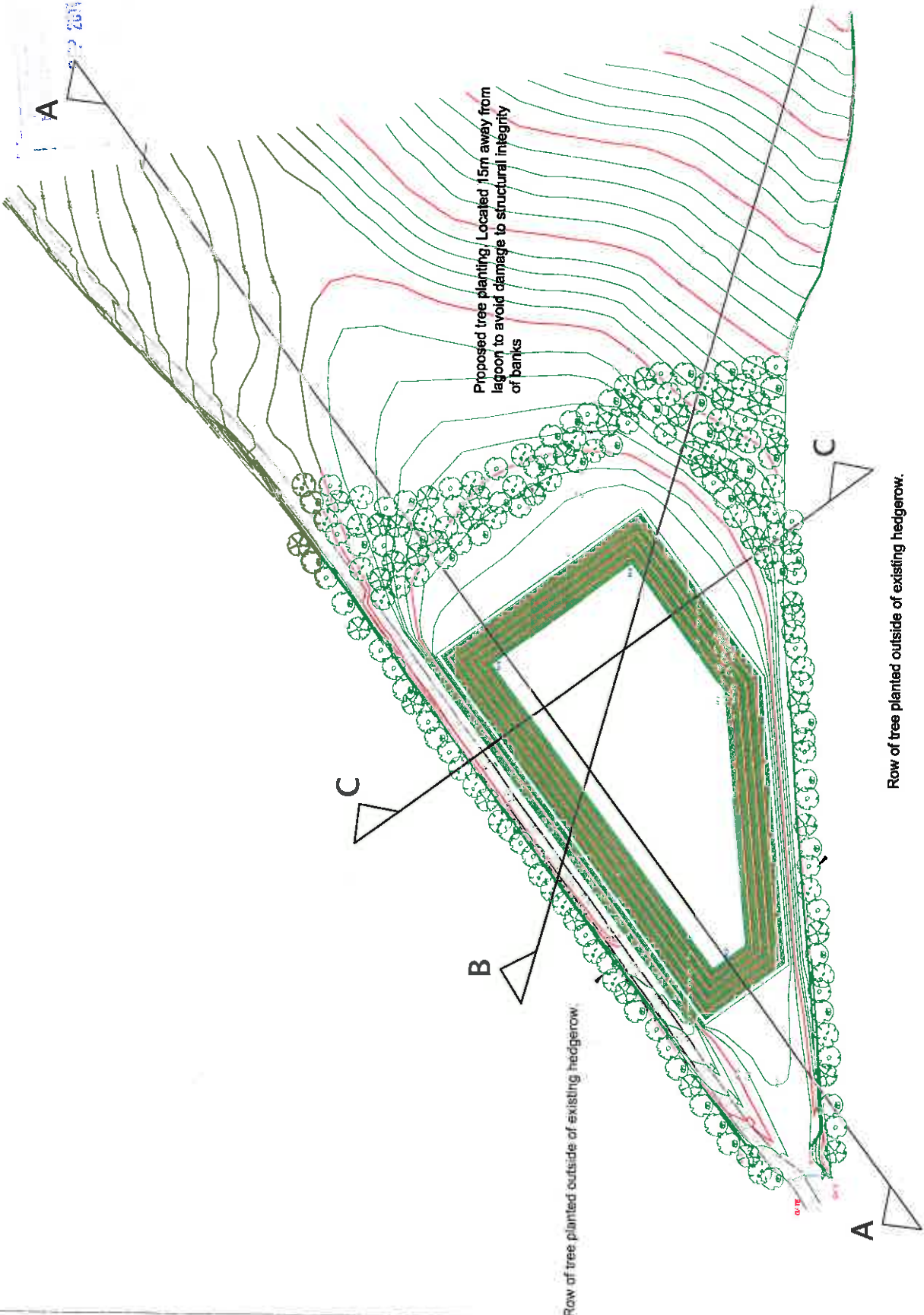
APPENDIX 5: Feed Ration

Milking cows:

	per cow (kg)
Forage (Silage and Whole Crop)	35.0
Blend	5.0
Parlour cake	2.5

Dry cows:

	per cow (kg)
Forage	24.5
Blend	1.5
Straw (Feed)	3.5



MK	REVISION	DATE

DRAWING TITLE

DRAFT LANDSCAPING PLAN

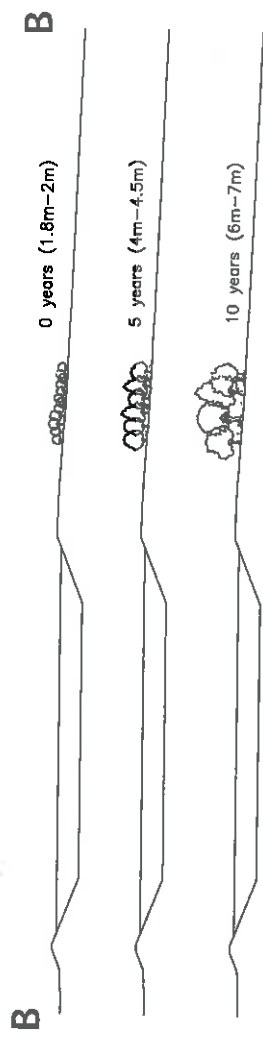
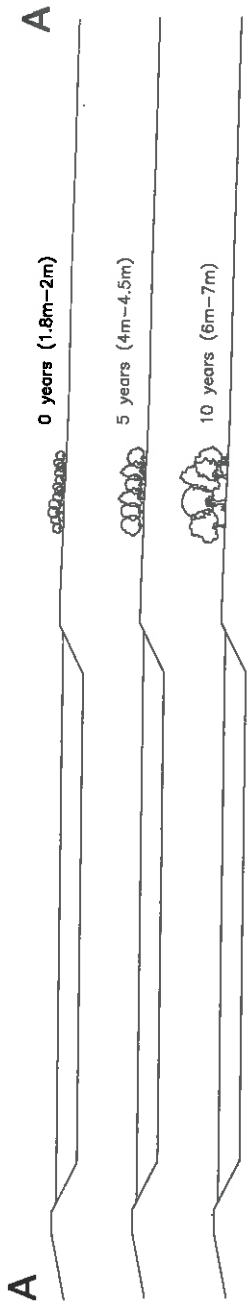
CONTRACT

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Drawn	Chk'd.	Rev.
AL		RAC/6199/10
Scales	Date	
1:1,000@A3	Sept 2014	



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**DRAFT LANDSCAPING PLAN
CROSS-SECTIONS**

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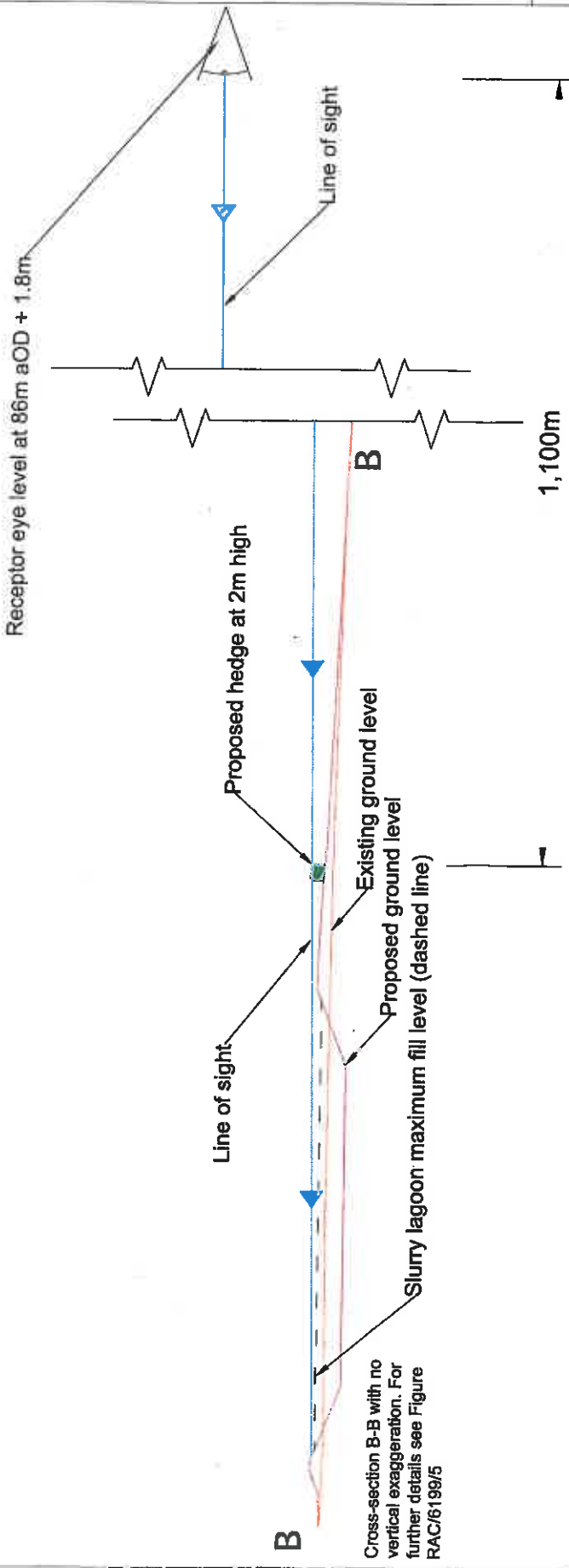
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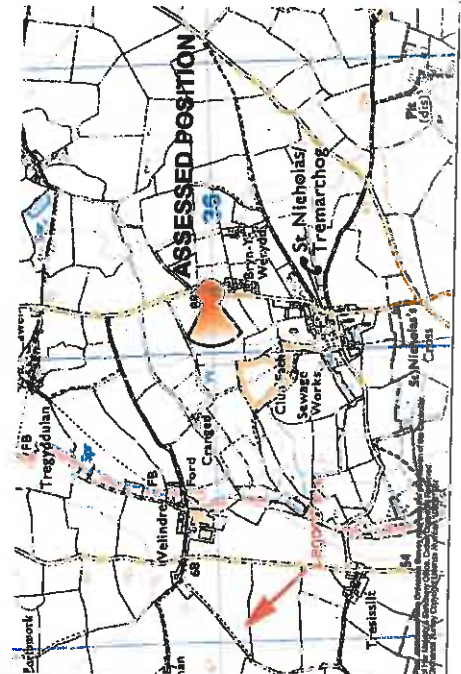


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Scales	1:1,000@A3	Date	RAC/6199/11
		Sept 2014	

Please refer to Figure RAC/6199/9 'Line of sight diagram' for effectiveness of screening



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LINE OF SIGHT DIAGRAM		
CONTRACT		
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Drawn	Checked	Reviewed
AL	PWD	
1:5000@A2	1:3	July 2014
		RAC/6199/9



Cross-section B-B with no vertical exaggeration. For further details see Figure RAC/6199/5

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**Planning Application for
Cattle Accommodation Building, Open yard Area
and Slurry Lagoon
at**

**Velindre Farm,
St Nicholas,
Pembrokeshire,
SA64 0LJ**

Additional Traffic Information

October 2014



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Introduction

1. This additional traffic information has been prepared by Reading Agricultural Consultants Ltd (RAC) in response to a recently received request for further traffic detail from Pembrokeshire County Council Highways Authority.

2. The consultation response states the following:

"The information has been shown as annual traffic flows and whilst I was happy to do my own analysis on this, an annual traffic generation does not mean much in reality and it would be more useful if they were to show figures of traffic movements at peak times, i.e. identify their busiest periods, e.g. harvest/slurry spreading, and estimate how much traffic this will generate over a typical working day and hour of that day. This will give a better indication of actual direct impact to residents.

It would also be beneficial if a contractor/traffic management plan was developed to show how traffic is to be controlled to avoid excessive peaks in vehicular movements at any one time, e.g., avoid carrying silage whilst moving slurry, accept deliveries on days when other activities are quiet and so on."

3. As there are many variables in both slurry spreading and forage harvesting operations, any forecast can only be an estimate. The figures provided in the following table make the following assumptions:

- the Applicant already undertakes slurry spreading operations after forage has been cut to avoid contamination of feedstock. Furthermore, any forage harvesting and slurry spreading is staggered, to avoid traffic conflict on local roads and within the farm, maximising efficiencies;
- silage harvesting would take approximately 2.5 days for 12 hours/day to complete, three times a year. Wholecrop harvesting would account for a further 2.5/days/year;
- slurry spreading is carried out by contractors using three tankers. Usually one day at a time for 10.5 hours/day, throughout the year when conditions are suitable for spreading;

4. All of other traffic movements are as previously stated.

5. Existing forage movements are an underestimate as the farm currently produces significantly more silage than it currently requires. This surplus silage, although currently ensiled, will be sold from the farm if the proposed development does not proceed. However, the existing figures used in the calculations are for a 'best case' scenario, whereby forage produced is equal to that consumed.
6. The location of two satellite holdings at Woodlands Farm and Penysgwarne Farm are north and south of the Velindre Farm. The broadly similar size of these two land blocks ensure that forage and slurry traffic movements passing dwellings north and south of the farm are effectively halved.
7. With forage harvesting taking place approximately 10 days/year, and slurry spreading movements taking place on approximately 20 days/year (with the proposed lagoon giving the flexibility to allow the spreading to take place at more appropriate times), it is considered that a traffic management plan for deliveries is unnecessary as conflicts with other farm traffic will be rare¹.

¹effectively a maximum of 3.7 slurry/forage movements ($7.4 \div 2$) along the main delivery route from the farm as shown on Figure RAC/6199/6.

APPENDIX 1: Whole Farm Traffic Forecast

Total Annual Traffic Movements at Velindre Farm (Existing)

1 vehicle movement is a movement either onto or off the site

Movement type	Movement	Vehicle	Movements/year	Movements/day (peak)	Movements/hour (peak)
Forage ²	29 /Month	Tractor & Trailer	350	35	2.9
Blend feed	60 /Year	29t HGV	60		
Straw (feed)	34 /Year	11.5t Tractor & Trailer	34		
Parlour cake	29 /Year	29t HGV	29		
Sawdust (bedding)	18 /Year	20t HGV	18		
Milk tankers	56 /Month	29,000 Litre HGV	672		
On-site staff (6)	24 /Week	Car/LGV	1,248		
Off-site staff (4) ³	30 /Week	Car/LGV	1,560		
Foot trimming	4 /Month	Car/LGV	104		
Vet	2 /Month	Car/LGV	24		
Livestock Transfers (beef calves)	4 /Month	Car/LGV	48		
Livestock Transfers (fallen stock)	4 /Month	Car/LGV	48		
Minerals, dairy chemicals etc	12 /year	15t HGV	12		
AI	2 /Year	Car/LGV	2		
Post	12 /Week	Car/LGV	624		
Contractors (slurry) ⁴	1,515 /Year	Tractor & Trailer (2,300 gallon)	1,515	78.0	7.4
Total HGV			791		
Total Tractor & Trailer			1,899		
Total Car/LGV			3,658		
Total			6,348		

² Reduced by 67% as forage cut from land contiguous with Velindre Farm does not require hauling. Dry cow forage figure reduced by a further 66% as dry cows generally grazed outdoors for eight months of the year.

³ Assuming five day week for two workers and 2.5 day/week for two relief milkers.

⁴ Detail of calculations provided in Additional Information for Development Management Committee Report – September 2014 – Appendix 4

Total Annual Traffic Movements at Velindre Farm (Proposed)

1 vehicle movement is a movement either onto or off the site

Movement type	Movement	Vehicle	Movements/year	Movements/day (peak)	Movements/hour (peak)
Forage ²	46 /Month	Tractor & Trailer	557	55.7	4.6
Blend feed	95 /Year	29t HGV	95		
Straw (feed)	53 /Year	11.5t Tractor & Trailer	53		
Parlour cake	46 /Year	29t HGV	46		
Sawdust (bedding)	28 /Year	20t HGV	28		
Milk tankers	56 /Month	29,000 Litre HGV	672		
On-site staff (3)	24 /Week	Car/LGV	1,248		
Off-site staff (7) ⁵	40 /Week	Car/LGV	2,080		
Foot trimming	4 /Month	Car/LGV	104		
Vet	2 /Month	Car/LGV	24		
Livestock Transfers (beef calves)	4 /Month	Car/LGV	48		
Livestock Transfers (fallen stock)	4 /Month	Car/LGV	48		
Minerals, dairy chemicals etc	12 /year	15t HGV	12		
AI	2 /Year	Car/LGV	2		
Post	12 /Week	Car/LGV	624		
Contractors (slurry)	1,441 /Year	Tractor & Trailer (3,000 gallon)	1,441	78.0	7.4
Total HGV			853		
Total Tractor & Trailer			2,051		
Total Car/LGV			4,178		
Total			7,082		

⁵ Assuming five day week for three workers and 2.5 days/week for two relief milkers.

Summary Table – Movements/year

	Existing	Proposed	Difference
Total HGV	791	853	62
Total Tractor & Trailer	1,899	2,051	152
Total Car/LGV	3,658	4,178	520
Total	6,348	7,082	734