

Comhairle Chontae na Mí

Teach Buvinda, Bóthar Átha Cliath, An Uaimh,
Contae na Mí, C15 Y291

Fón: 046 – 9097000/Fax: 046 – 9097001

R-phost: customerservice@meathcoco.ie

Web: www.meath.ie - Registration No. 00172770



Meath County Council

Buvinda House, Dublin Road, Navan,
Co. Meath, C15 Y291

Tel: 046 – 9097000/Fax: 046 – 9097001

E-mail: customerservice@meathcoco.ie

Web: www.meath.ie - Registration No. 00172770

Planning Authority Reference No: LBS52376

Date: 11/01/2024

An Bord Pleanála
64 Marlborough Street
Dublin 1

Re: Planning and Development Acts 2000 – 2022 Section 5(4) Referral
LBS52376 – Dawn Meats – Slane, Greenhills, Beauparc, Co. Meath, C15CF38

Dear Sir/Madam,

I refer to the attached Section 5 application lodged with Meath County Council on 15th December, 2023.

The subject development consists of installation of a 7 Hectare sub-surface Irrigation to facilitate the dispersal of treated effluent from the on-site WWTP. The system is installed with an irrigation pipework on the two fields which are separated by 400mm. The design of the system will be divided into seven zones which will be irrigated via an automated system.

Meath County Council consider it appropriate that this application is referred to An Bord Pleanála pursuant to Section 5(4) of the Planning and Development Acts 2000-2022 and seeks a declaration as to whether it constitutes exempted Development.

Yours sincerely,

Majella Farrell
A/Senior Executive Officer
Planning Department

AN BORD PLEANÁLA	
LDG-	069242-24
ABP-	
12 JAN 2024	
Fee: €	110.00
Type:	CHG
Time:	9.00am
By:	Reg Post

Comhairle Chontae na Mí

Roinn Pleanáil,
Teach Buvinda, Bóthar Átha Cliath,
An Uaimh, Contae na Mí, C15 Y291
Fón: 046 – 9097500/Fax: 046 – 9097001
E-phost: planning@meathcoco.ie
Web: www.meath.ie



Meath County Council

Planning Department
Buvinda House, Dublin Road,
Navan, Co. Meath, C15 Y291
Tel: 046 – 9097500/Fax: 046 – 9097001
E-mail: planning@meathcoco.ie
Web: www.meath.ie

APPLICATION FORM – DECLARATION ON DEVELOPMENT & EXEMPTED DEVELOPMENT

Part 1 Section 5 of Planning and Development Act 2000-2021, as amended

1. Name: Dawn Meats – Slane

Contact details: to be supplied at the end of this form (Question 13)

2. Name of person/ agent acting on behalf of the applicant, if applicable

Trevor Montgomery - Montgomery EHS Ltd

Contact details: to be supplied at the end of this form (Question 14)

3. Location of Development and/or Subject Site:

Dawn Meats – Slane, Greenhills, Beauparc, Co. Meath, C15 CF38

4. Description of Development:

Installation of a 7 Hectare sub-surface Irrigation to facilitate the dispersal of treated effluent from the on-site WWTP. The system is installed with an irrigation pipework on the two fields which are separated by 400 mm. The design of the system will be divided into seven zones which will be irrigated via an automated system.

5. Will the development take place within the curtilage of a dwelling house?

Please tick as appropriate: YES ☐ NO ☒

6. Will / does development take place in / on a Protected Structure or within the curtilage of a Protected Structure?

Please tick as appropriate: YES ☐ NO ☒

6(b) If "YES", has a Declaration under Section 57 of the Planning & Development Act 2000 – 2014, as amended, been requested or issued for the property by the Planning Authority?

Please tick as appropriate: YES ☐ NO ☒

7. State overall height of structure if applicable: Underground

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15 DEC 2023

LB552376

8. State in square metres the floor area of the proposed development:

70,000 m2

9. List of plans / drawings etc. submitted:

- Proposed Zones plan
- Site Location
- Irrigation Plan

10. Please state applicants interest in this site

Dawn Meats – Slane currently owns the site.

If applicant is not the owner of site, please provide name & address of owner:

11. Are you aware of any enforcement proceedings connected to this site?

Please tick as appropriate: YES ☐ NO ☒

11 (b), If "YES" please supply details:

12. Are you aware of any previous planning application/s on this site?

Please tick as appropriate: YES ☒ NO ☐

12 (b), If "YES" please supply details:

LB180192, LB180300, 21335, 21424, SA140158, LB161202, SA140210, LB140803, 23382, LB181444.

SIGNED: 

DATE: 02nd October 2023

NOTES

1. Application Fee of €80

2. Application shall be accompanied by:

- 2 copies of site location map to scale 1:2500 clearly showing the site outlined in red and the extent of the site boundaries, the position of existing structures, etc., and the proposed work.
- 2 drawings to scale (1:200) of the proposed development (including floor plan and elevations), if appropriate.

Comhairle Chontae na Mí

Roinn Pleanáil,
Feach Buvinda, Bóthar Átha Cliath,
An Uaimh, Contae na Mí, C15 Y291
Fón: 046 – 9097500/Fax: 046 – 9097001
R-phost: planning@meathcoco.ie
Web: www.meath.ie



Meath County Council

Planning Department
Buvinda House, Dublin Road,
Navan, Co. Meath, C15 Y291
Tel: 046 – 9097500/Fax: 046 – 9097001
E-mail: planning@meathcoco.ie
Web: www.meath.ie

- **Two site layout plans to scale 1:500 if appropriate. Please submit 2 copies of any additional plans/reports etc. you may wish to include as part of the application.**

Application shall be forwarded to: Meath County Council, Planning Department, Buvinda House, Dublin Road, Navan, Co. Meath.

Contact Details: Phone: 046 9097500 Fax: 046 9097001

Email: planning@meathcoco.ie

CONTACT DETAILS – NOT TO BE PUBLISHED

13. Name of applicant: Dawn Meats – Slane,

Address: Greenhills, Beauparc, Co. Meath, C15 CF38

Phone No: 087 2390421 E-mail : trevor@mehs.ie

14. Name of person/ agent acting on behalf of the applicant, if applicable

Trevor Montgomery – Montgomery EHS Ltd

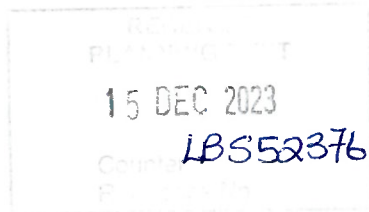
Address for correspondence: Kanother Business Park, Killeedy, Ballagh, Co. Limerick V42RY96

Phone No: 087 2390421

E-Mail: trevor@mehs.ie



11th December 2023



Kantoher Business Park
Killeedy Ballagh,
Co Limerick
Tel 069 85896
Mob 087 2390421
Email: trevor@mehs.ie

Re: Application for exempted development at Dawn Slane

Dear Sir / Madam,

MEHS have been appointed by Dawn Meats – Slane to install a Sub-Surface Irrigation System at Dawn Meats – Slane. The two fields to the north of the production site, one was previous use for a wetland system.

The sub-surface system has been installed in Silver Hill Duck, Emyvale Monaghan at a 15 Hectare system dispersing up to 480 m3/day of treated effluent for 3 years.

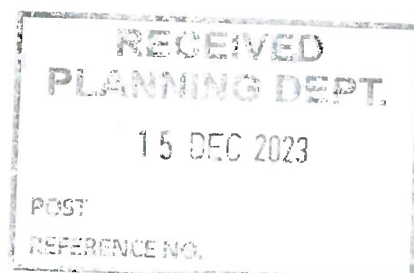
The proposed use of the land for sub-surface irrigation will still allow the land to be used for silage production & grazing. This system installed at Dawn Slane will be licensed by the EPA under the Industrial Emissions licensing system.

Please contact me if you require further information on the matter.

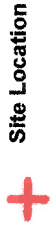
Yours sincerely

A handwritten signature in blue ink, appearing to read "Trevor Montgomery".

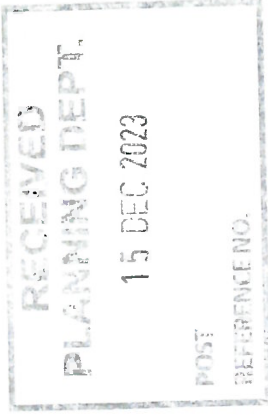
Trevor Montgomery, Post Grad Dip, BSc, Dip Mgmt, Dip Poll Ass & C,
Cert Env'n Mont, Cert HSWW
Environmental and Health & Safety Consultant.



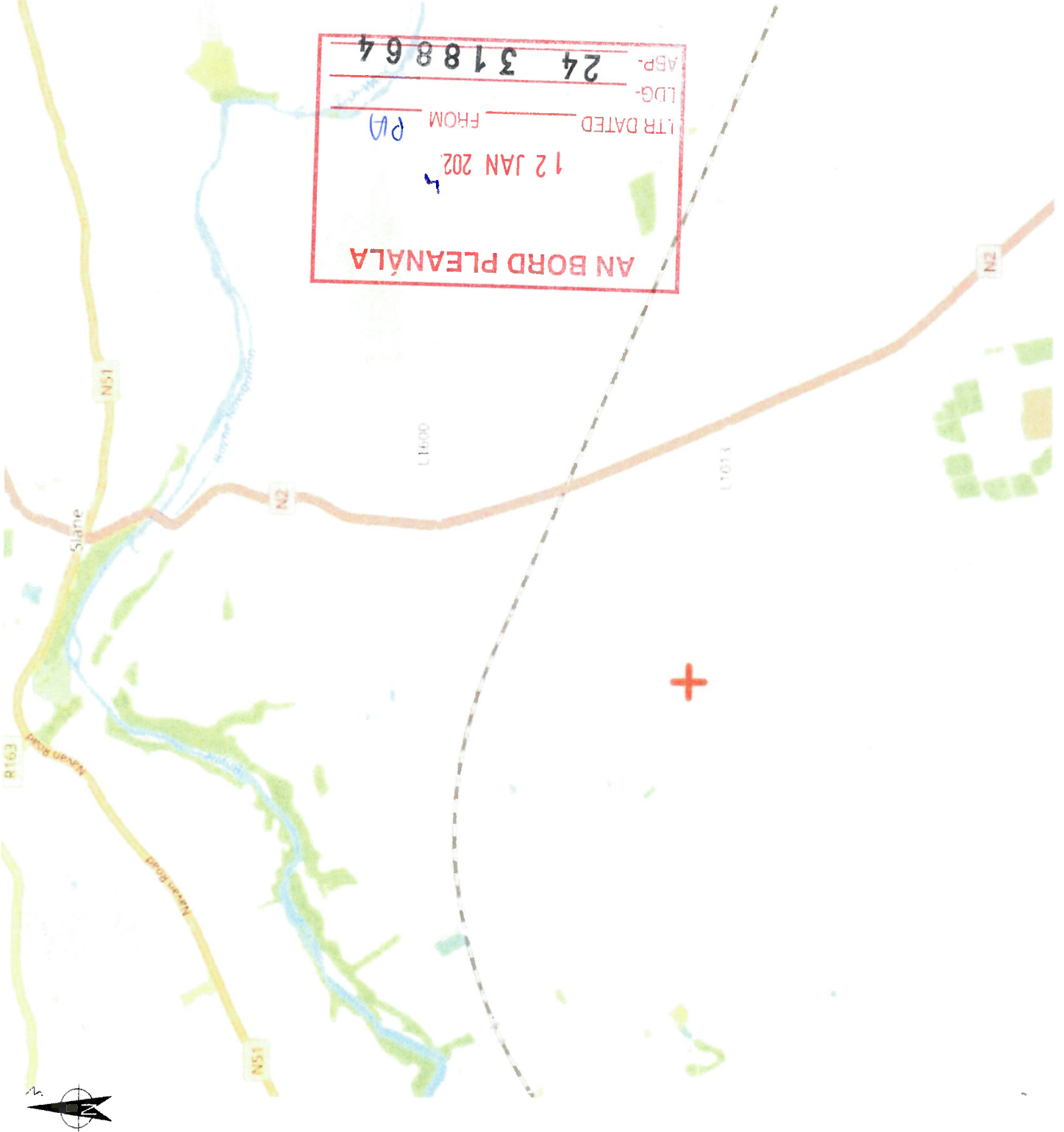
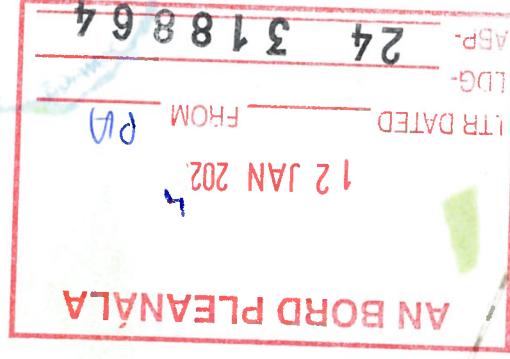
Legend

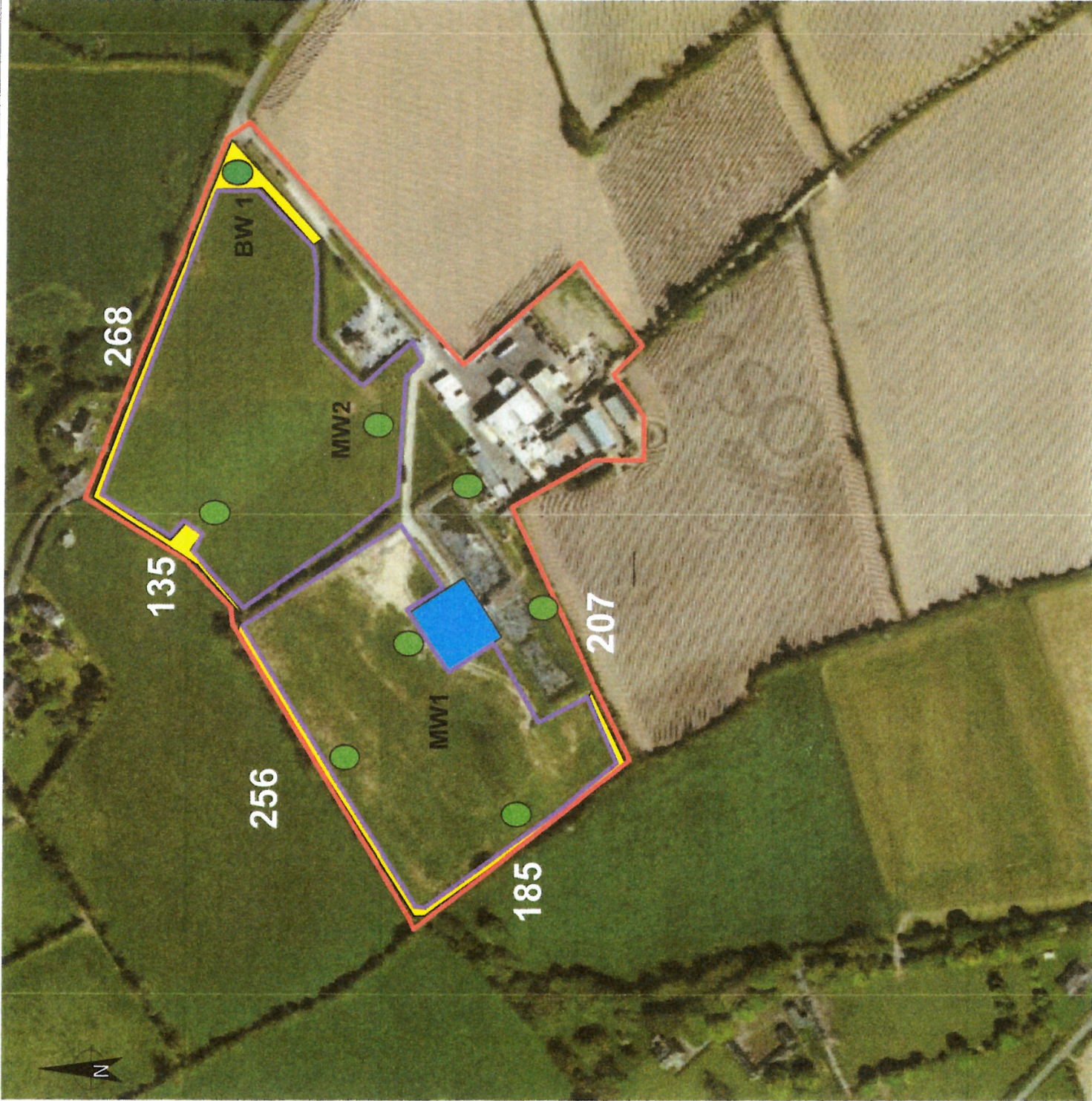


Site Location



Client	Dawn Slane		
Title	Mapping		
Scale	NTS	Project No.	P023 88
Figure No.	Figure 1	Rev	A





Legend



Operating Site



Drip Irrigation site



Upgrade WWTP



Groundwater Abstraction Well



Groundwater Monitoring Well

AN BORD PLEANÁLA

12 JAN 2024

LTR DATED 12 JAN 2024 FROM PA

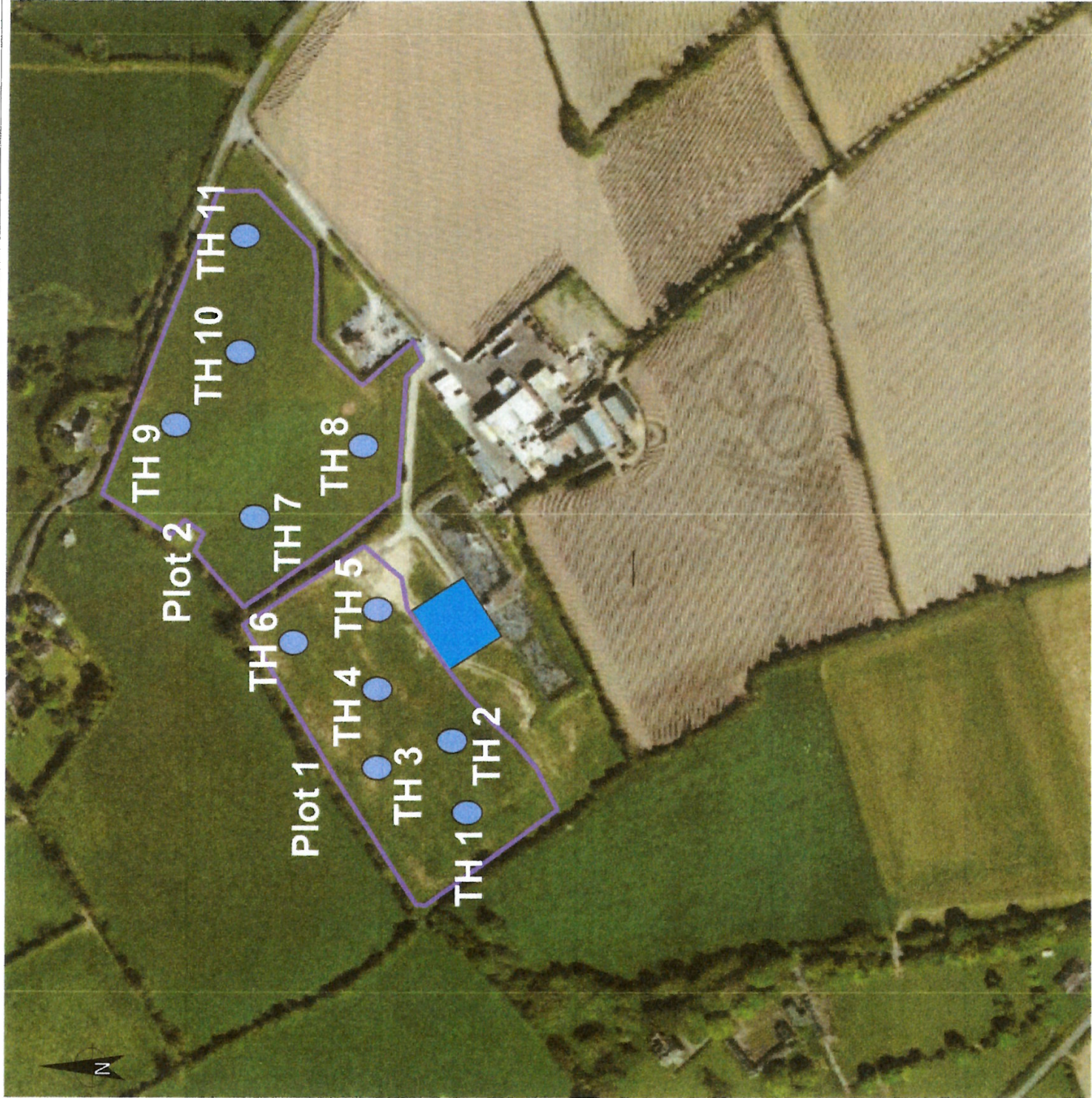
LDG-

ABP- 24 318864



Client	Dunbia Slane		
Title	Mapping		
Scale	NTS	Project No	P023 088
Figure No		Rev	A

Figure 1.



Legend



Operating Site



Drip Irrigation site



Upgrade WWTP



Trial Hole

AN BORD PLEANÁLA

12 JAN 2024

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LTRIDATED 12 JAN 2024 FROM 014

LDG-

24 318864

ABP-



Client

Dunbia Slane

Title

Trial Holes

Scale

NTS

Project No

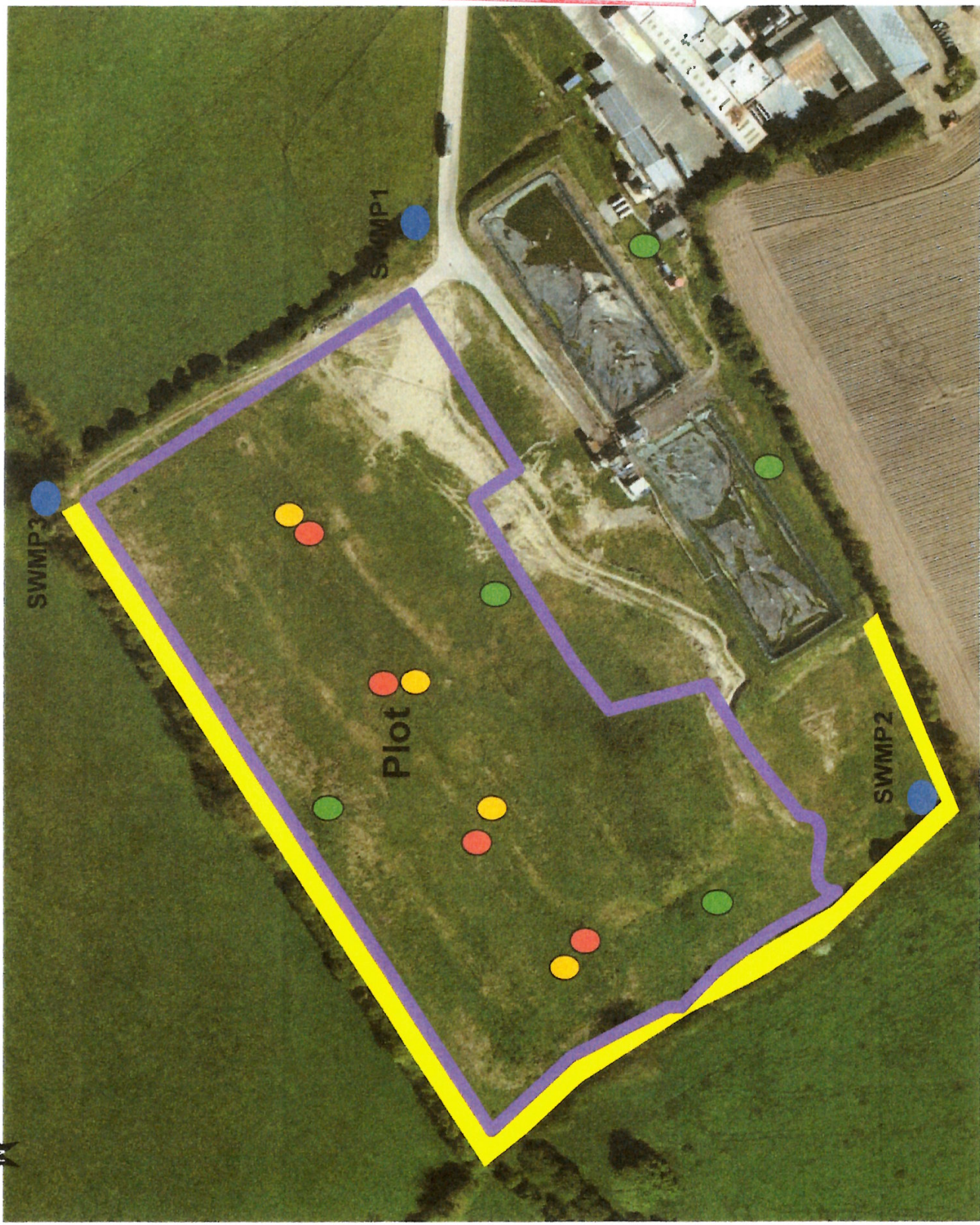
P023 088

Figure No.

Figure 1.

Rev

A



Legend



Operating Site



Drip Irrigation site



Buffer



Surface water Monitoring



Proposed Groundwater Monitoring Well



Proposed Soil Pore Water Monitoring Point



Proposed Soil Moisture Meter

AN BORD PLEANÁLA

12 JAN 2024

LTR DATED

01A

FROM

LDG- 24

318864

ABF.



Client	Dunbia Slane		
Title	Mapping		
Scale	NTS	Project No.	P023 088
Figure No.	Figure 1.4A	Rev.	A

DUNBIA (SLANE)
LAND OWNERSHIP (C. 11.5 HA)

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15 DEC 2023

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REFERENCE NO.

AN BORD PLEANÁLA

12 JAN 20:4

LTR DATED _____ FROM _____ 2A

FROM

24

~~318864~~



Client:

Dawn Slane

Title

Groundwater Vulnerability

Scale.

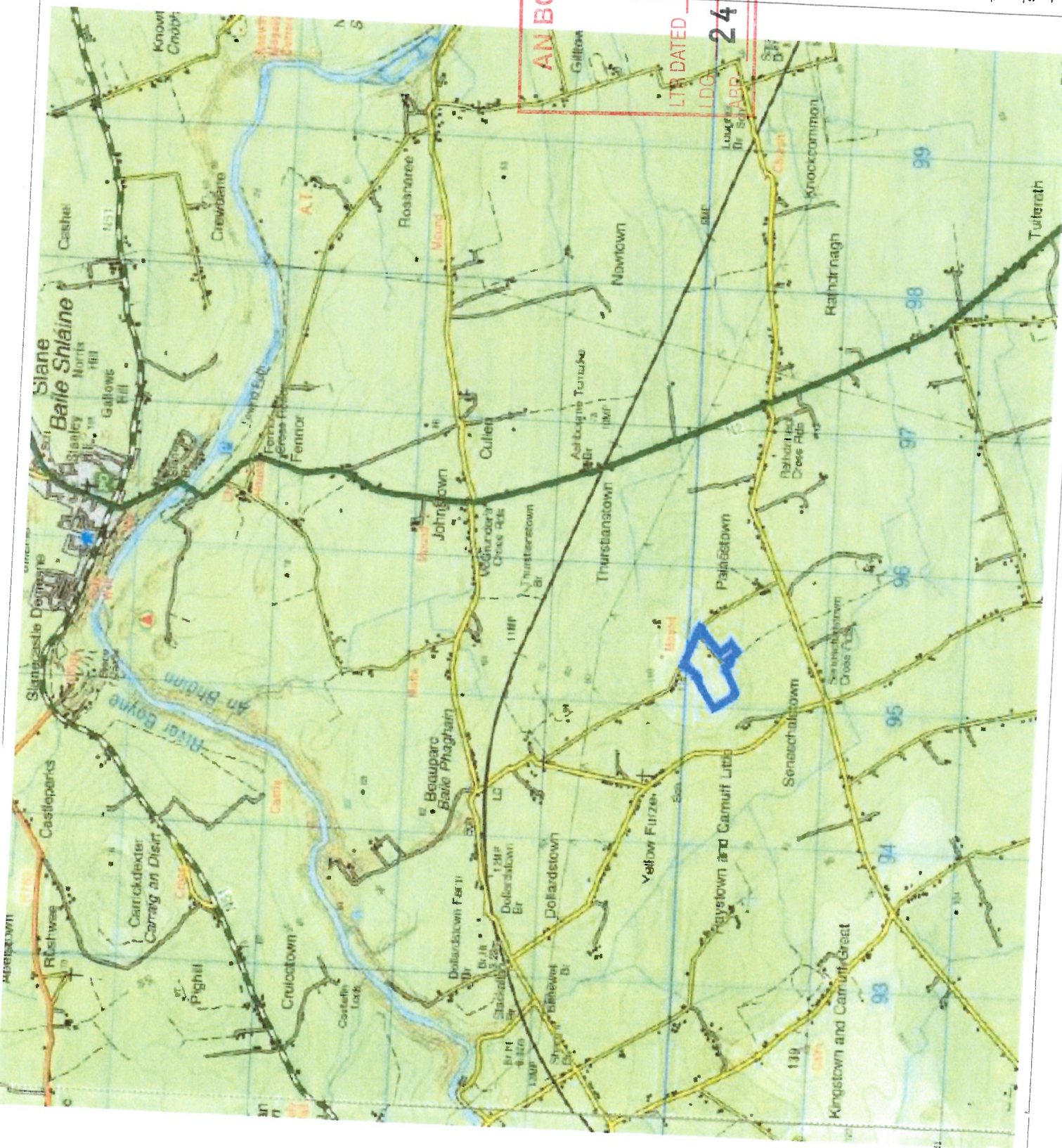
NTS

Project No. P023 88

Figure No.

Figure 2.2

Rev.



Legend

- DUNBIA (SLANE)
LAND OWNERSHIP (C. 11.5 HA)
- PLANNING APPLICATION ARE
(C. 11.5 HA)
- FIELD DRAINAGE
STORMWATER DRAIN
- EXISTING SUPPLY WELLS (BW01
BW02)
- TEST AND MONITORING WELLS
(2014)

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REFERENCE NO.



Client

Dawn Slane

Title

Site layout

Scale

NTS

Project No.

P023 88

Figure No

Figure 2.2

Rev.

A

AN BORD PLEANÁLA

12 JAN 2024

LTR DATED FROM 12 JAN 2024

LDG- ABP- 24 318864

DRAIN TO
ROUGHGRANGE
RIVER

SW DISCHARGE
POINT

REFER TO FIGURE 2.4

DATE

Legend

- DUNBIA (SLANE)
LAND OWNERSHIP (C. 1.1A)
- PLANNING APPLICATION AREA
(C. 11.5 HA)
- FIELD DRAINAGE
STORMWATER DRAIN
- SURFACE WATER DRAINAGE
INFRASTRUCTURE

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REFERENCE NO.

12 JAN 2024

LTR DATED FROM

LDG- 24 318864



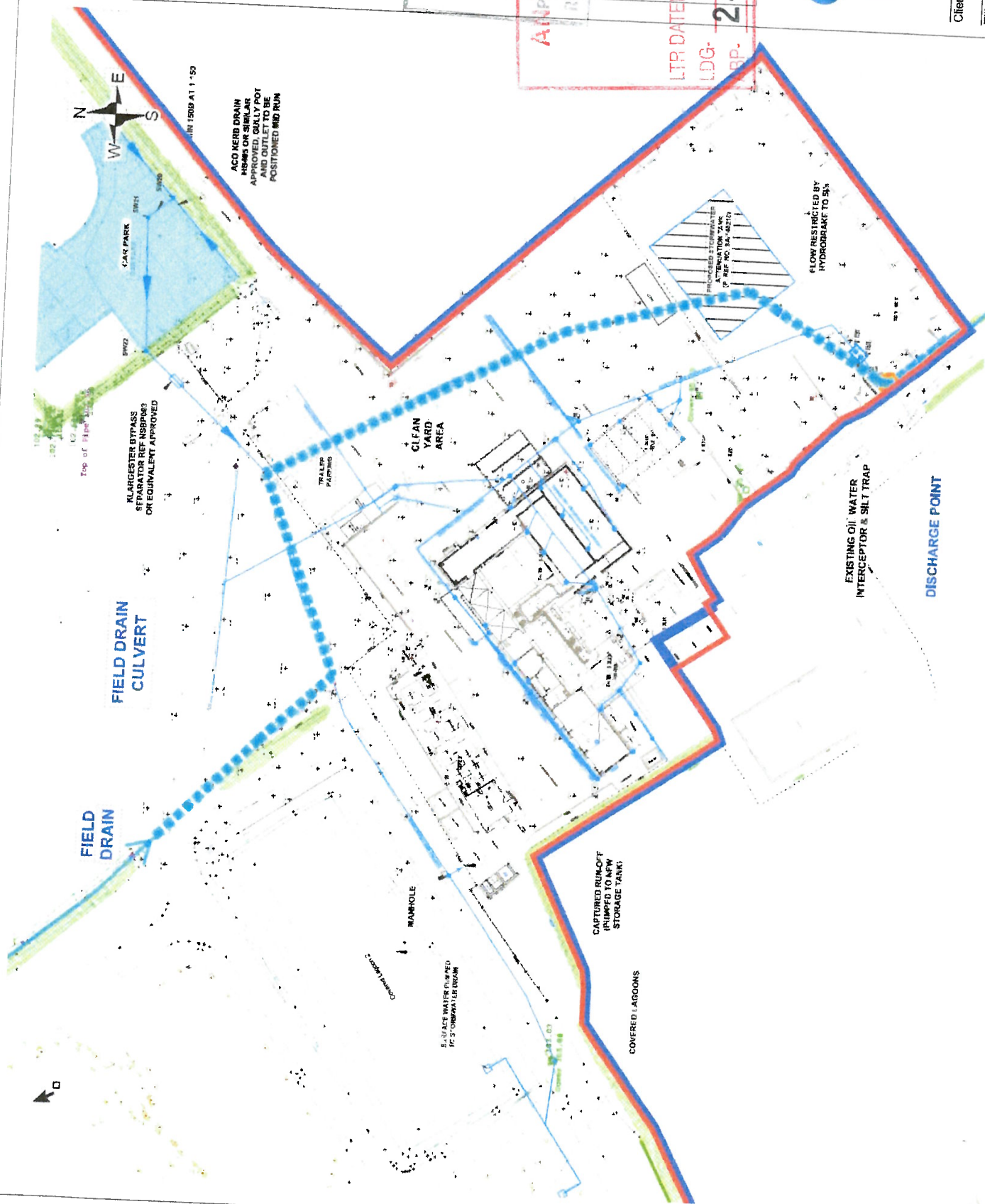
Client
Title
Scale
Figure No.

Dawn Slane
Detailed Site Layout

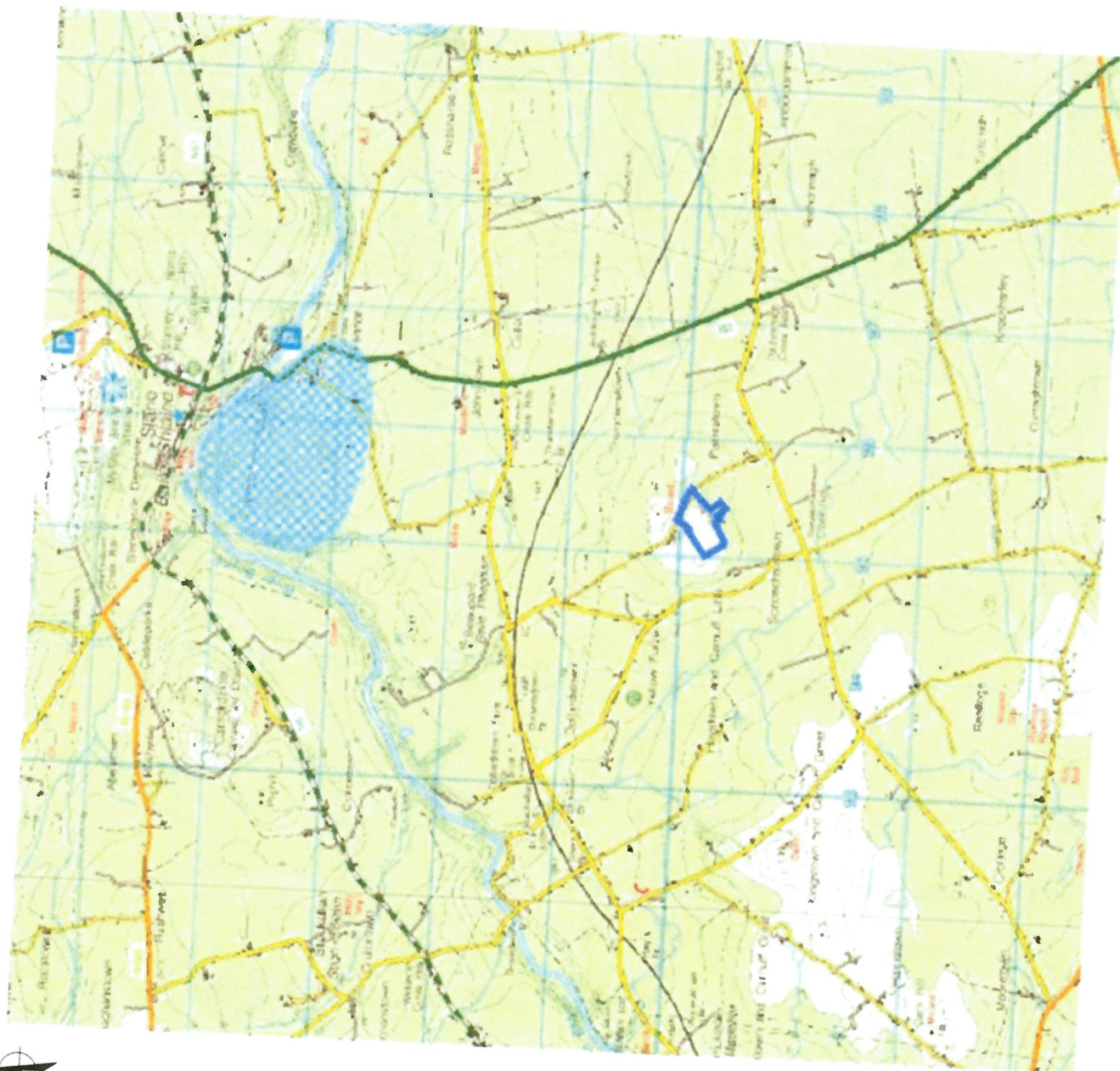
Project No. P023 88

NTS

Figure 2.3



Rev.



Legend



DUNBIA SLANE
LAND OWNERSHIP (IC 11.2.4A1)



SLANE WELL SOURCE
PROTECTION ONE

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AN BORD PLEANÁLA

12 JAN 2024

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FROM

ASP. 24 318864



Client

Dawn Slane

Title SOURCE PROTECTION ZONE MAP

Scale

NTS

Project No.

P023 88

Figure No.

Rev

Figure 2 4



Legend



Site Location

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15 DEC 2023
POST
REFERENCE NO.

AN BORD PLEANÁLA

12 JAN 2024

LTR DATED

FROM

QA

LDG-

ABP-

24

318864



Client

Dawn Slane

Title

Mapping

Scale

NTS

Project No.

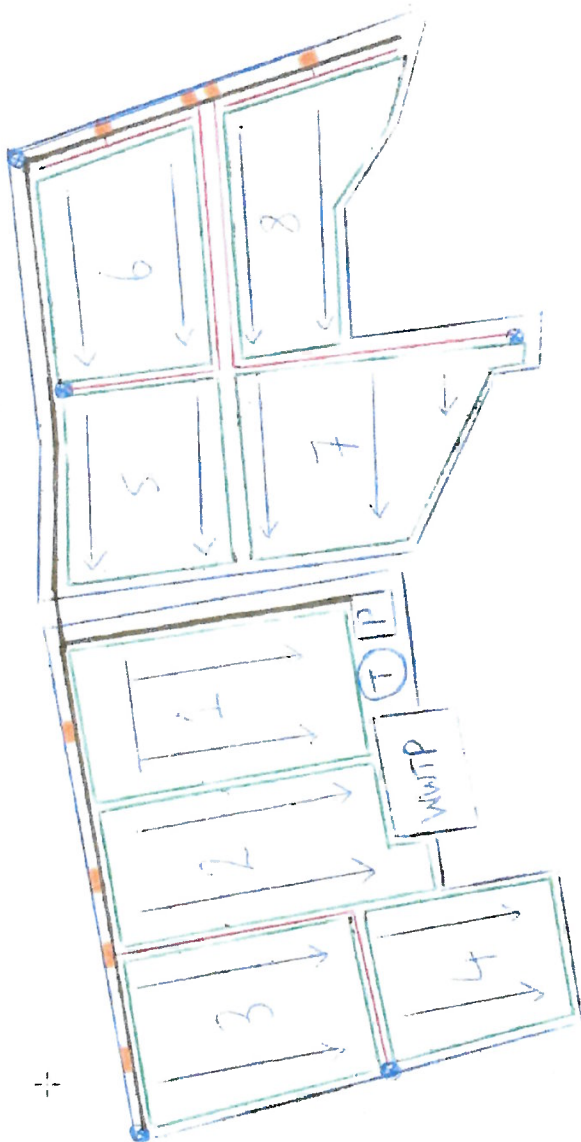
P023 88

Figure No.

Figure 3

Rev

A



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15 DEC 2023
POST
REFERENCE NO.

KEY

- T = TANK
- P = PUMP HOUSE
- WWTIP = WASTE WATER PLANT
- WWTIP = VALVE BOXES
- WWTIP = VALVE BOXES
- WWTIP = AIR RELEASE
- WWTIP = 125mm MANHOLE
- WWTIP = 63mm SUB LINES
- WWTIP = OUTFALL ZONE
- WWTIP = DIRECTION OF FLOW

Legend



DUNBIA ISLAND
LAND OWNERSHIP 1:1 E 4A



SLANE WELL SOURCE
PROTECTION ONE

AN BORD PLEANÁLA

12 JAN 2024

LTR DATED

FROM

QA

LDG-

24

318864

ABP-



Client

Dawn Slane

Title

Irrigation Zones

Scale

NTS

Project No.

P023 88

Figure No.

Figure 4

Rev.

A

Legend



Site Location

RECEIVED
PLANNING DEPT.
15 DEC 2023
POST
REFERENCE NO.



Client

Dawn Slane

Title

Groundwater Vulnerability

Scale

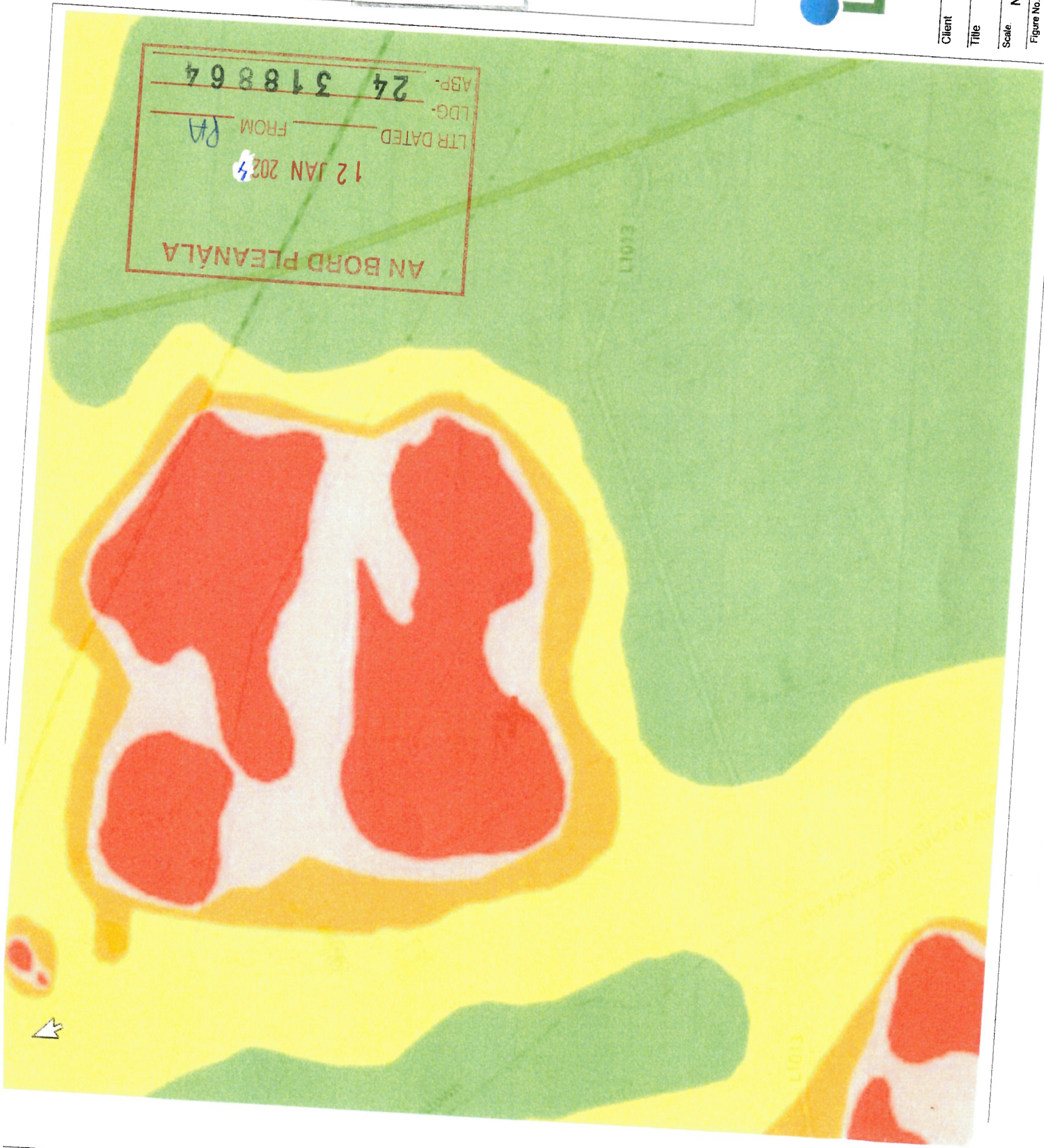
NTS

Project No

P023 88

Figure No.

AN BORD PLEANÁLA
LTR DATED 12 JAN 2024
FROM RA
LDG- 24
ASP- 318864



Silver Hill Duck Sub-Surface Irrigation Project

AUG 2021 – Feb 2023



AN BORD PLEANÁLA	
12 JAN 2024	
LTR DATED	FROM <u>PA</u>
LDG.	24 318864
ABP.	

PROJECT SCOPE

To assess the viability of the Drip Irrigation System and determine application rates which are suitable for the ground conditions and do not result in adverse environmental impacts.

PROJECT OBJECTIVE

- To provide an alternative method of discharging our treated effluent water to Corlattalan Stream.

Background

The EPA commenced a license review in 2011 with the view at looking at other discharge locations for the effluent discharge.

The current discharge was 480 m³/day.

A significant number of options were examined:

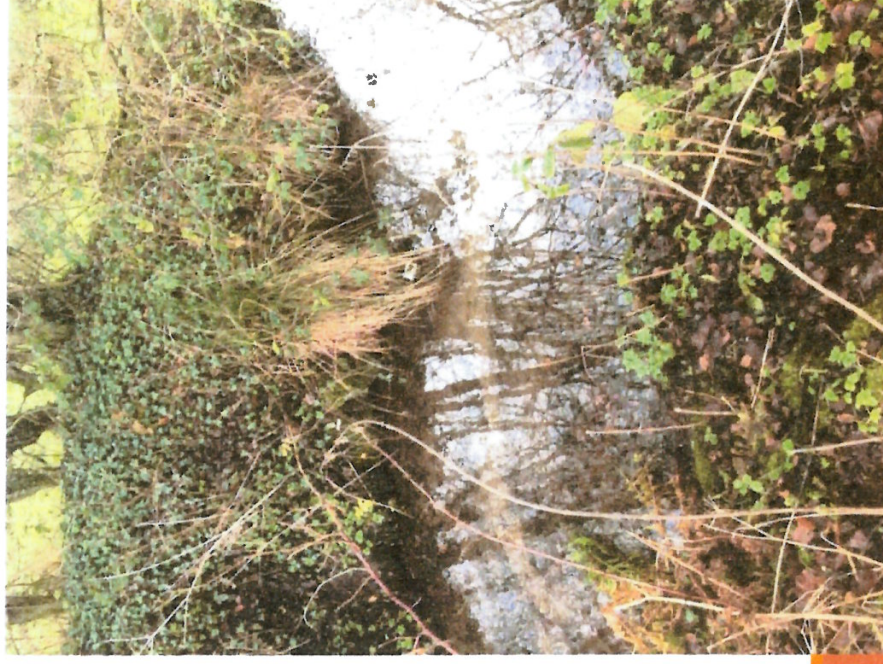
1. Pump to the Blackwater River (€2 million cost) legal issues with right of way over 8 km distance
2. Tanker to Blackwater River, long term cost and issues as the blackwater is the border need to get agreement from EPA and NI EA.
3. Reed beds on-site but same issue is no dilution
4. Pumping groundwater to achieve dilution not acceptable to EPA, Monaghan CoCo, IFI and Origin Green
5. Discharge to Emyvale WWTP, discharge stream is small and doesn't current have dilution required for domestic effluent and unable to process an additional 480 m³/day.
6. Irrigation systems were examined, and sub-surface was seen as the best option both financially and technically.

Existing discharge Location prior to Sub-surface Irrigation

Corlattalan Stream was shallow and low flow

Silver Hill Duck effluent discharge during the summer was > 90% of the flow.

EPA & IFI wanted an alternative and sub-surface irrigation meet that requirement.



Subsurface Irrigation System

MEHS travelled to the UK and Netherlands to examine different systems.

The main issue was ground conditions and the absence of bed rock.

The load rate depends on soil type.

The best long-term volume for discharge was 2 to 5 litres which prevented ponding, soil structure damage and system operability.

We select 3 litres / m² /day or in other terms equivalent to 3 mm of rain fall per day.

For every 30 m³/day a 10,000 m² or 1 Hectare is required.

The dripper lines we selected open the dripper at 3.6 bar, this ensures even distribution of the effluent.

The drip lines are installed 300 to 600 mm under the ground, normal farming practice can continue the land.

The effluent is fitted with an automatic back flush system, this protects the system and should last over 30 years.

EPA, Local Authority & IFI

MEHS has work with the client to get approval from the EPA, an IE license was issued to Silver Hill Duck for the sub-surface irrigation system. It required a pilot system to be installed this was a 1.5 Hectare system. The system was installed and operated as a pilot since Aug 2021. The EPA have given full approval for the 15 Hectare system which will be installed in June / July 2023.

IFI were initially concern regarding run off from the system, but the installation of the soil moisture probes and continuous monitoring and results from the pilot has allow them to approve the system.

Monaghan County Council has given planning permission for the expansion of the site, as one restriction to this was the capability to discharge / disperse effluent without significantly impacting on the environment.

Plot 1 (Pilot System)

Plot 1 Was selected as it was the closest to the site but also technically the most difficult. The field is sloping to the south and east. The drop from the North-western corner to South-eastern is over 20 metres.

The system was installed in August 2021 and went into service

We had two issue when commencing discharge, we had to leaks which were repaired.

The system is discharging 3 litres / m2/ day which is applied in 12 phases over 24 hours (2-hour intervals)

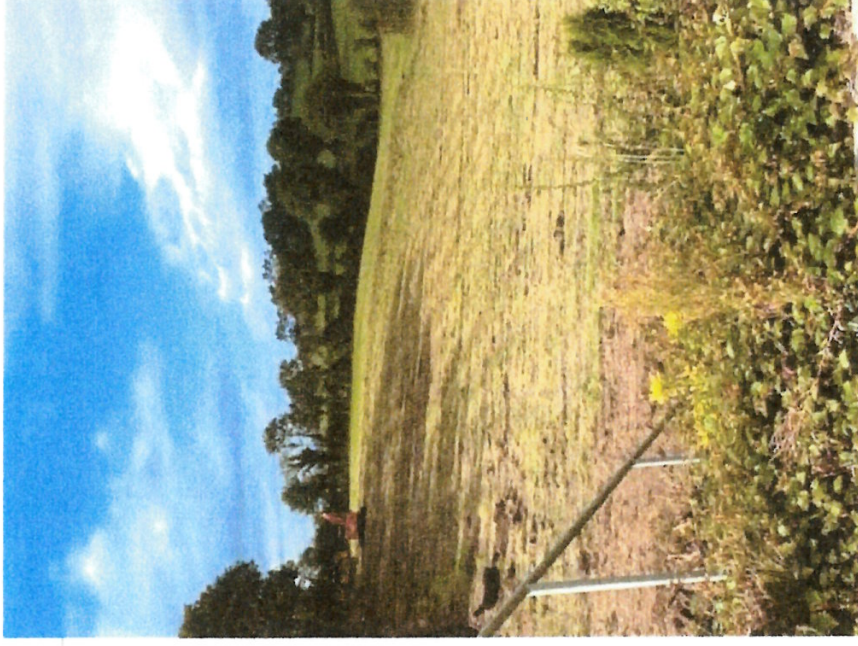
The soil moisture probe have alarmed once was we pumped more effluent than the 3 litres / m2/ day to test the probes.



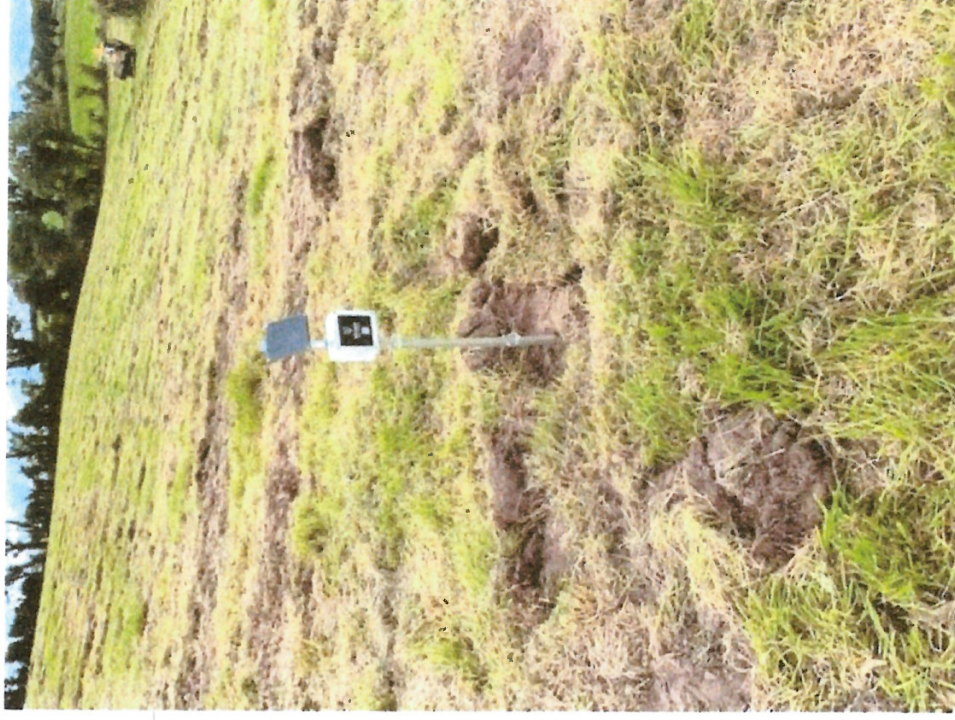
Field PRE-INSTALL



INSTALL ALMOST COMPLETE



MOISTURE PROBE INSTALLED

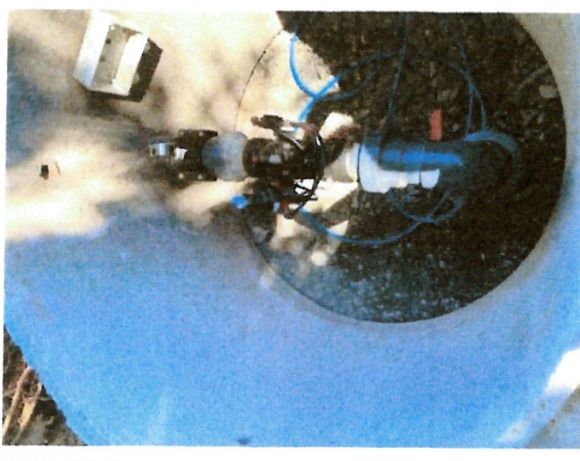


Main
line installation

Dripper
line installation

Dripper
line installed

Irrigation zone
control valve



IRRIGATION PUMP, FILTER & PIPES



PUMP HOUSE



WEEK 1



Week 36



Design and Construction – Sub-Surface Irrigation

- The installed pump must be adequately sized to service all irrigation area. Most irrigation products will require at least a 10m head pressure to ensure the emitters will open. Head pressure directly relates to the power of the pump in the septic tank. Therefore, a 10m head will pump wastewater 10m high.
- A filter must be installed on the pump discharge line to protect pipework from any solids found in the wastewater which could potentially clog emitters. The filter will be 120 microns in size and must be installed in a box or above ground before the sub-surface irrigation area begins.
- All distribution pipes (from the outlet of the septic tank system to the sub-surface irrigation field) must be buried to a minimum depth of 200mm from the natural ground surface. All irrigation pipes must be buried to a minimum depth of 120mm from the surface of the soil.
- The sub-surface irrigation system must be installed to ensure the wastewater is applied and dispersed uniformly over the entire area. The drip line must be installed in a grid format with one end intersecting a header manifold, and the other intersecting a footer manifold. (Refer to the diagram on next page).
- All drip line must be spaced a minimum of 0.4 metre apart and installed along the contours of the land.
- The manufacturer of the irrigation product should be consulted to determine the most appropriate emitter outflow rates which should be designed taking into consideration irrigation area design, soil permeability and water uptake of the receiving plants. Typically, emitters are usually spaced at 400mm apart to ensure uniform pressure throughout the system.

Design and Construction – Sub-Surface Irrigation

Vacuum breakers/air release valves with suitable protection shall be provided to prevent ingress of soil into the irrigation lines under the effects of negative pipework pressure. Vacuum breakers/air release valves must be installed at the highest point in all sub-surface irrigation fields.

Scour (flushing) valves in surface boxes shall be provided to allow for periodic cleaning of the system. Where flush water cannot be returned into the septic tank all flush water from each separate sub-surface irrigation field must be drained back to the treatment system.

The sub-surface irrigation area must be adequately planted out with lawn or suitable water tolerant plants. The lawn or plants must be maintained over the life of the system.

Where more than one same sized irrigation field/area is constructed, a suitable automatic rotation system should be installed (e.g. control valve).

Design and Construction – Sub-Surface Irrigation

- The manufacturer of the irrigation product should be consulted to determine the most appropriate emitter outflow rates which should be designed taking into consideration irrigation area design, soil permeability and water uptake of the receiving plants. Typically, emitters are usually spaced at 400mm apart to ensure uniform pressure throughout the system.
- Where more than one same sized irrigation field/area is constructed, a suitable automatic rotation system should be installed (e.g. control valve).
- Vacuum breakers/air release valves with suitable protection shall be provided to prevent ingress of soil into the irrigation lines under the effects of negative pipework pressure. Vacuum breakers/air release valves must be installed at the highest point in all sub-surface irrigation fields.
- Scour (flushing) valves in surface boxes shall be provided to allow for periodic cleaning of the system. Where flush water cannot be returned into the septic tank all flush water from each separate sub-surface irrigation field must be drained back to the treatment system.

System Overview

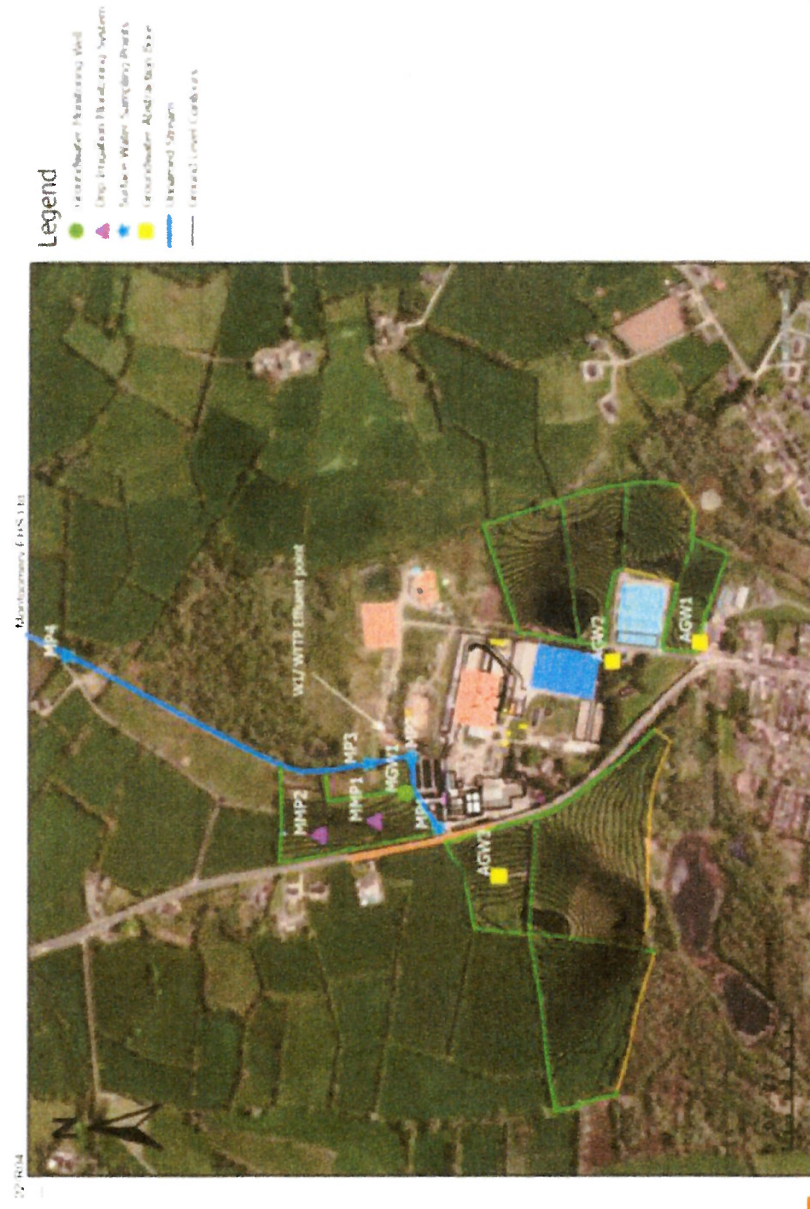


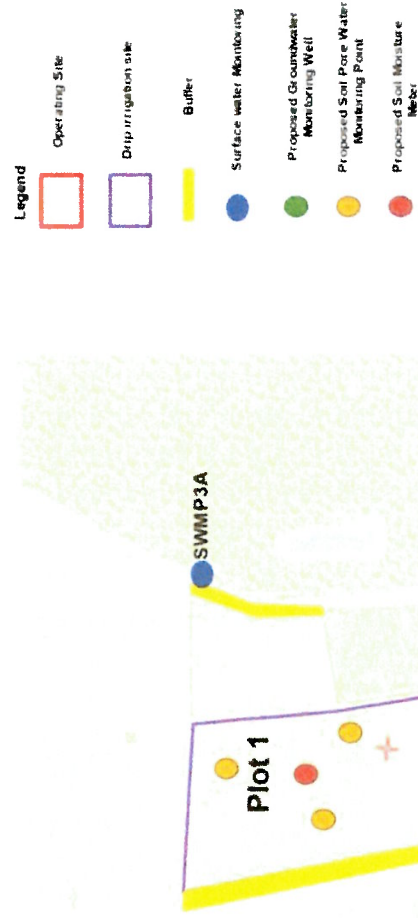
Figure 1.4A Monitoring Points for Surface Ground and Pore Water in Plot 1

Monitoring Locations Plot 1 Ground, Soil and surface waters & Buffer Zones

2-R04

Montgomery EHS Ltd

A



Monitoring Locations Plot 2, 3 & 4 Ground, Soil and surface waters & Buffer Zones

TM22-1a2-R04

Montgomery EHS Ltd

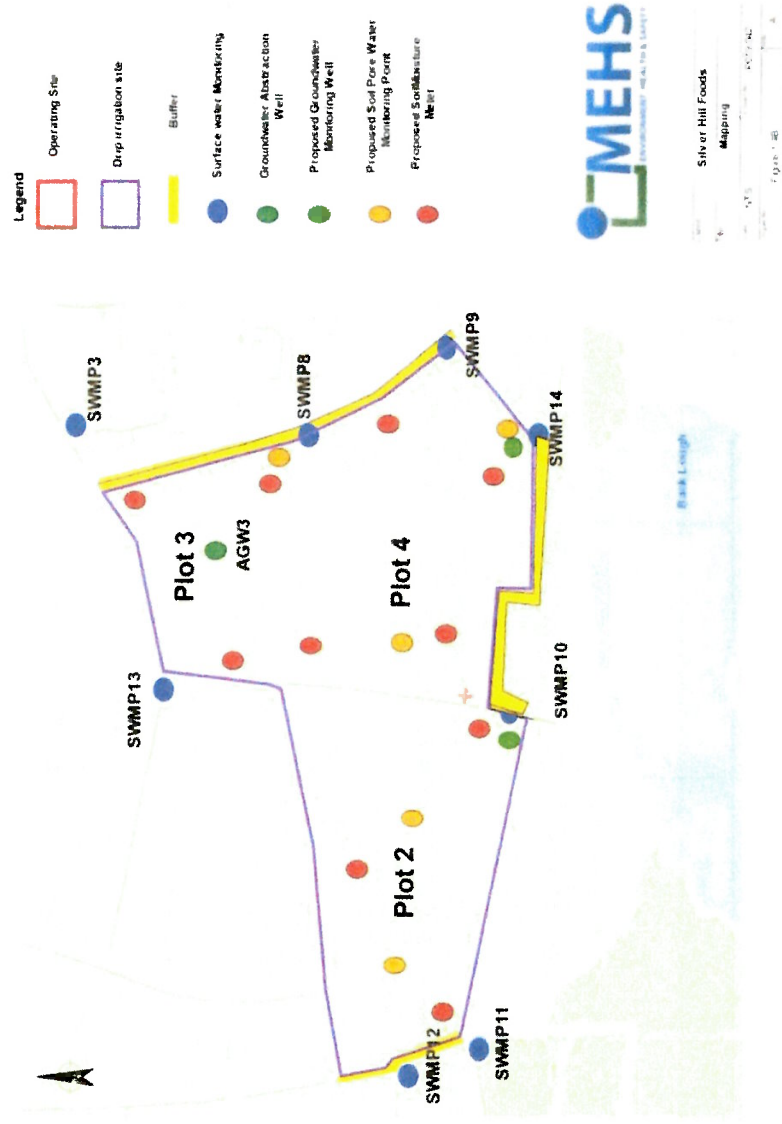


Figure 1.4B Proposed Monitoring Points for Surface, Ground and Pore Water in Plot 2-4

Monitoring Locations Plot 5 Ground, Soil and surface waters & Buffer Zones

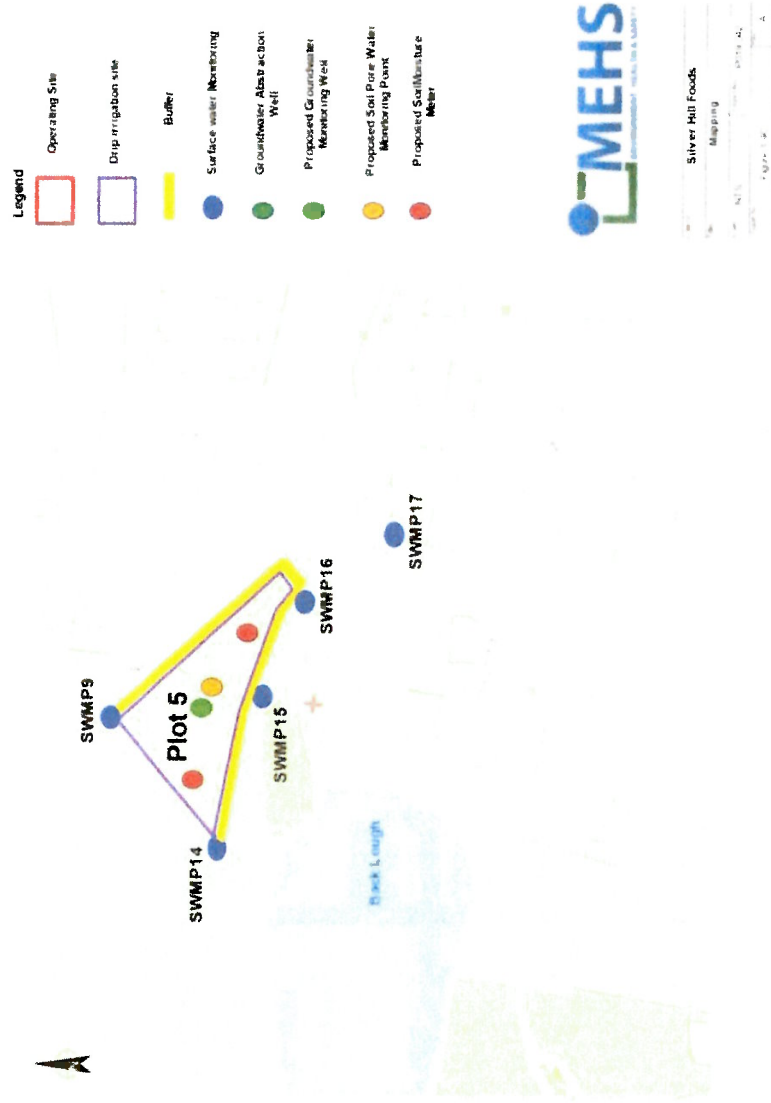


Figure 1.4C Proposed Monitoring Points for Surface, Ground and Pore Water in Plot 5

Monitoring Locations Plots 6, 7, 8 & 9 Ground, Soil and surface waters & Buffer Zones

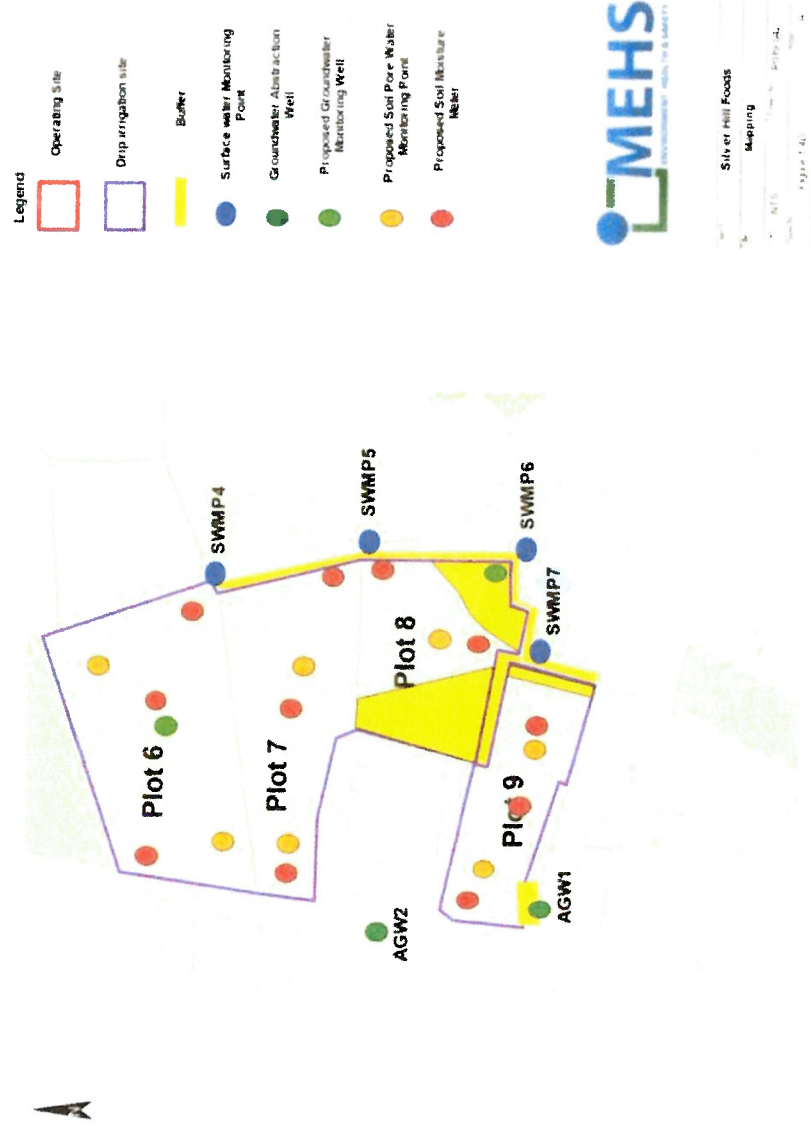


Figure 1.4D Proposed Monitoring Points for Surface, Ground and Pore Water in Plot 6 – 9

Thank You
