

Offaly County Council

Ferbane Fire Station

Ferbane,

Co. Offaly

**Report on Civil Works
Planning Stage**

March 2016

TOBIN CONSULTING ENGINEERS



Report on Civil Works Planning Stage

PROJECT:

Ferbane Fire Station

CLIENT:

Offaly County Council

COMPANY:

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1 INTRODUCTION

This report has been prepared to detail the Civil Works Planning submission element of a proposed Fire Station at Ferbane, Co. Offaly. It should be read in conjunction with relevant drawings as outlined and noted herein.

The proposed development will entail the construction of a new Fire Station on the old Railway site which is currently occupied by Offaly County Council. It is proposed to connect the fire station to the existing Area Office (former station House). The proposed floor space of the fire station will be approximately 350m².

1.1 *Desktop Study*

A desktop study was conducted on the site to assess if the site is a noted flood risk and whether the site is within a Special Area of Conservation SAC, Special Protection Area (SPA) or Natural Heritage Areas (NHA).

The OPW National Flood Hazard Mapping report indicates no Flood Points, Recurring Flooding or Areas Flooded within 2.5km of the site as shown in appendix D.

The National Park and Wildlife Services Maps do not indicate that the site is located within a SAC, SPA or NHA as shown in appendix E. Offaly Fire Service Department also conducted their own Appropriate Assessment Screening and the outcome of that was that no further assessment was required.

1.2 *Foul drainage system overview*

The new Fire Station will add 3 No. Toilet/WC, 3 No. Urinals, 3 No. Showers and 4 No. Sinks to the foul sewer and it is proposed to connect to the existing foul sewer located on the N62 Road. Details of the Foul Sewer can be found in Appendix A of this document and on drawing No. 8023-2106 Rev A. It is proposed that all additional pipes will be uPVC. The maximum pipe diameter is to be 150mm, with gradients of 1/60 and 1/150. All velocities at said gradients fall within the limits of 0.75 and 3m/sec as set out in "Recommendations for Site Development Works" as published by the Department of Environment.

1.3 Storm drainage system overview

The existing site is largely made of hard and gravel type surface with some surface water drainage in place. It is proposed to discharge the site to a proposed soakaway via an oil and petrol interceptor. The proposed soakaway will be designed and constructed in accordance with BRE 365. It is proposed that all additional pipes will be uPVC. The maximum pipe diameter is to be 225mm, with gradients of 1/150. All velocities at said gradients fall within the limits of 0.75 and 3m/sec as set out in "Recommendations for Site Development Works" as published by the Department of Environment.

1.4 Existing Drainage

Prior to designs being carried out on the drainage system, a visual survey of the existing lands was undertaken. The survey consisted of the following:

1. Assessment of existing sewers.
2. Sizes and location of existing manholes and sewers

The foul to the current Area office discharges to the existing foul sewer on the N62. Existing storm gullies exist but it is unclear where these gullies discharge to. The existing drainage can be seen on drawing No. 8023-2101 Rev A.

2 FOUL WATER DRAINAGE DESIGN

It is expected that the occupancy for the extension will not exceed 15 persons and a conservative value of 20 persons has been used for dry weather flow (DWF) calculations with six times DWF used to size pipes as shown in Appendix A. Occupancy figures are shown below and detailed in accordance with the recommendations of the Greater Dublin Strategic Drainage Study and using the EPA Waste Water Manual for small communities, the treatment plant has been designed based on the following design data:

Source				Hydraulic Loading (Litres/Day)		BOD ₅ Load (Grams/Day)		P.E.
Description	No of units	Occupancy per Unit	Total Occupancy	Per Occupant	Total	Per Occupant	Total	
Industrial with Canteen								
Fire Station	1	20	20	60	1200	30	600	
Total					1200		600	10

From this data, the PE for the proposed Fire Station is calculated using the Total Organic Loading, or BOD, figure of 60 grams/day and dividing it by 60, as per the Recommendations for Site Development Works for Housing Areas, to get a **PE** figure of **10**.

The foul sewer will flow via gravity to the existing foul sewer located on the N62, at the connection the existing foul sewer a new manhole will be constructed.

3 STORM WATER DRAINAGE DESIGN

The storm water drainage design has been designed to cater for surface water from all hard surfaces in the proposed development including roadways, footpaths, and buildings. A 1 in 30 year return period with 10% added for climate change was used to size the pipes.

The pipe ref. no., manhole no. upstream, manhole no. downstream, length of pipe, ground level at manhole upstream, ground level at manhole downstream, impermeable area for each pipe section, invert level upstream, invert level downstream, gradient, capacity and rate of flow for each pipe section are detailed in Appendix B and on Drawing No. 8023-2107 Rev A. Sections of the proposed drainage are shown on Drawing No. 8023-2109. The proposed soakaway for the development will be stone with a void ratio of 40% and will be 20 x 10 x 1.4m deep. The soakaway was designed in accordance with BRE 365 using a 1 in 100 year return period.

All stormwater generated within the site will pass through an oil and bypass separator details of which can be found in Appendix C

4 WATER MAIN

4.1 *General over view*

There is currently a 100mm Cast Iron watermain running along the N62 and it is proposed to connect to this with a 75mm uPVC watermain to serve the proposed Fire Station.

Fire Hydrants will be provided in accordance with the Building Regulations and Technical Guidance Document part B.

5 Roads, Traffic & Transport

5.1 *Existing Road Network*

The proposed Fire Station is located on the N62 at the site of the current Offaly County Council Area Office. The existing road infrastructure comprises of a 8.8m wide carriageway with 2m wide footpaths along either side of the N62 in the direction of Ferbane town.

Adjacent to the site is Gallen View Housing Estate. The footpath exiting the estate stops short of the N62 prior to the existing entrance to the Area Office.

Preliminary discussions regarding the roads layout was held with Mr. John Mitchell Offaly County Council Roads Department.

5.2 *Proposed Access*

At the request of Offaly Fire Service Department separate access was designed for the Council Yard and Fire Station. The Council Yard will be accessed roughly in the current location of the existing access with some adjustments to gradients and cross falls. The junction will be significantly improved with the addition of 6m radius kerbed entrance and the extension of existing footpath, exiting the housing estate, to the N62 to provide a safer crossing point for pedestrians. The Council Yard entrance will be 5.3m wide which narrows to 4m wide, there will be a pull in bay to allow for two way traffic. The Fire Station entrance will be 7.2m wide with 6m radius kerbing.

Autotrack analysis was carried using a standard Fire Appliance, a rigid 10m long truck and a 16m long articulated truck for the Fire Station entrance and Council Yard entrance respectively, as shown on drawing No.8023-2106 Rev A. The Autotrack analysis indicates that both junctions can accommodate the selected vehicles mentioned above. Offaly County Council have confirmed that the frequency of articulated trucks access the council yard will be 1 to 2 visits a month between the months of September and May.

Horizontal and vertical sightlines have been checked and are shown on drawing No. 8023-2105 Rev A.

5.3 *Proposed Internal Layout*

The Fire Station internal layout will see the provision of 12 dedicated parking spaces including 1 No. disabled parking space. There will be 10.5m radius turning circle to the rear of the station to allow Fire Appliance manoeuvring. Approach gradients, from the Fire Station to the N62, lie between 2.5 and 4% in accordance with NRA guidance. All the approach gradient for the last 10 meters are 2.5% in accordance with NRA guidance to allow vehicles to dwell before pulling out onto the main road.

6 CONCLUSION

The Report should be read in conjunction with the associated Drawings, layouts and specifications. We trust that adequate detail has been provided for wastewater drainage layout, storm water drainage layout, watermain layout and traffic assessment. Should you require any further detail, we will be happy to meet and supply same, as you may deem appropriate.

Signed:

Kerril Lindsay BE
for Tobin Consulting Engineers

Date: 10/03/2016

APPENDIX A

Foul Drainage Design Calculations

[illegible]

Table 1: Wastewater Drainage Design Calculations
Refer to Dwg. 8023-2006

APPENDIX B

Storm Drainage Design Calculations

Soakaway Design to BRE 365

Design Procedure I - O = S

where;

I = Inflow from impermeable area to be drained

O = Outflow infiltrating into the soil during rainfall

S = Storage required

$I = A \times R$

where;

A = the impermeable area drained to the soakaway;

R = the total rainfall in a 30 yr design storm



$$O = a_{s50} \times f \times D$$

where;

a_{s50} = the internal surface area of the soakaway to 50% effective depth

f = the soil infiltration rate determined in trial pit at the site of the proposed soakaway

D = the storm Duration

Drained Area = 2000 m²

Proposed Soakaway

Length (m)	Width (m)	Depth (m)
20	10	1.4

a_{s50} 42 m²

Void Ratio 40 %

Infiltration Rate (f) 1.7000E-05 m/s

For a 100 Year return period from table below

Duration Minutes	M30 - D (mm)	I (m ³)	O (m ³)	S (m ³)	S required @ 40% voids	Check
10.00	24.1	48.180	0.428	48	119	OK
15.00	28.4	56.760	0.643	56	140	OK
30.00	33.2	66.440	1.285	65	163	OK
60.00	38.7	77.440	2.570	75	187	OK
120.00	45.2	90.420	5.141	85	213	OK
360.00	57.9	115.720	15.422	100	251	OK
720.00	67.7	135.300	30.845	104	261	OK
1440.00	79.1	158.180	61.690	96	241	OK

Rainfall Data obtained from Met Eireann for Grid co-ords 211475E, 224107N with 10% added for climate change

Highlighted cell is is volume required for critical storm duration

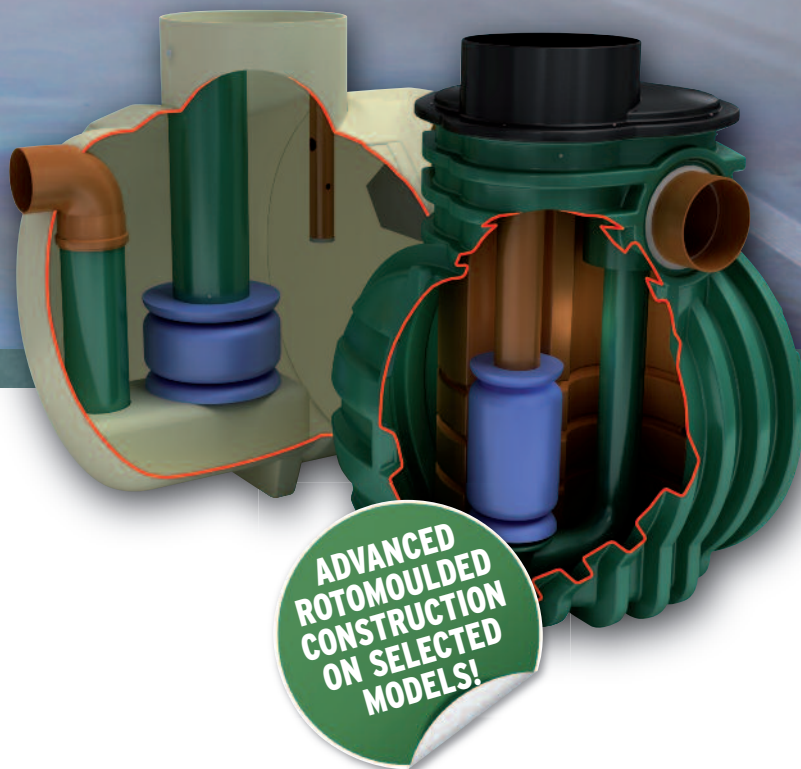
APPENDIX C

Oil and Petrol Interceptor Details

Kingspan *Klargester*

SEPARATORS

A RANGE OF FUEL/OIL
SEPARATORS FOR
PEACE OF MIND



Let us help!

Free professional
site visit with friendly
support and advice.

helpingyou@klargester.com

to make the right decision
or call **028 302 66799**


Kingspan
Environmental

Separators

A RANGE OF FUEL/OIL SEPARATORS FOR PEACE OF MIND

Surface water drains normally discharge to a watercourse or indirectly into underground waters (groundwater) via a soakaway. Contamination of surface water by oil, chemicals or suspended solids can cause these discharges to have a serious impact on the receiving water.

The Environment Regulators, Environment Agency, England and Wales, SEPA, Scottish Environmental Protection Agency in Scotland and Department of Environment & Heritage in Northern Ireland, have published guidance on surface water disposal, which offers a range of means of dealing with pollution both at source and at the point of discharge from site (so called 'end of pipe' treatment). These techniques are known as 'Sustainable Drainage Systems' (SuDS).

Where run-off is draining from relatively low risk areas such as car-parks and non-operational areas, a source control approach, such as permeable surfaces or infiltration trenches, may offer a suitable means of treatment, removing the need for a separator.

Oil separators are installed on surface water drainage systems to protect receiving waters from pollution by oil, which may be present due to minor leaks from vehicles and plant, from accidental spillage.

Effluent from industrial processes and vehicle washing should normally be discharged to the foul sewer (subject to the approval of the sewerage undertaker) for further treatment at a municipal treatment works.

SEPARATOR STANDARDS AND TYPES

A British (and European) standard (EN 858-1 and 858-2) for the design and use of prefabricated oil separators has been adopted. New prefabricated separators should comply with the standard.

SEPARATOR CLASSES

The standard refers to two 'classes' of separator, based on performance under standard test conditions.

CLASS I

Designed to achieve a concentration of less than 5mg/l of oil under standard test conditions, should be used when the separator is required to remove very small oil droplets.

CLASS II

Designed to achieve a concentration of less than 100mg/l oil under standard test conditions and are suitable for dealing with discharges where a lower quality requirement applies (for example where the effluent passes to foul sewer).

Both classes can be produced as full retention or bypass separators. The oil concentration limits of 5 mg/l and 100 mg/l are only applicable under standard test conditions. It should not be expected that separators will comply with these limits when operating under field conditions.

FULL RETENTION SEPARATORS

Full retention separators treat the full flow that can be delivered by the drainage system, which is normally equivalent to the flow generated by a rainfall intensity of 65mm/hr.

On large sites, some short term flooding may be an acceptable means of limiting the flow rate and hence the size of full retention systems.

Get in touch for a **FREE** professional site visit and a representative will contact you within 5 working days to arrange a visit.

helpingyou@klargester.com to make the right decision or call **028 302 66799**

BYPASS SEPARATORS

Bypass separators fully treat all flows generated by rainfall rates of up to 6.5mm/hr. This covers over 99% of all rainfall events. Flows above this rate are allowed to bypass the separator. These separators are used when it is considered an acceptable risk not to provide full treatment for high flows, for example where the risk of a large spillage and heavy rainfall occurring at the same time is small.

FORECOURT SEPARATORS

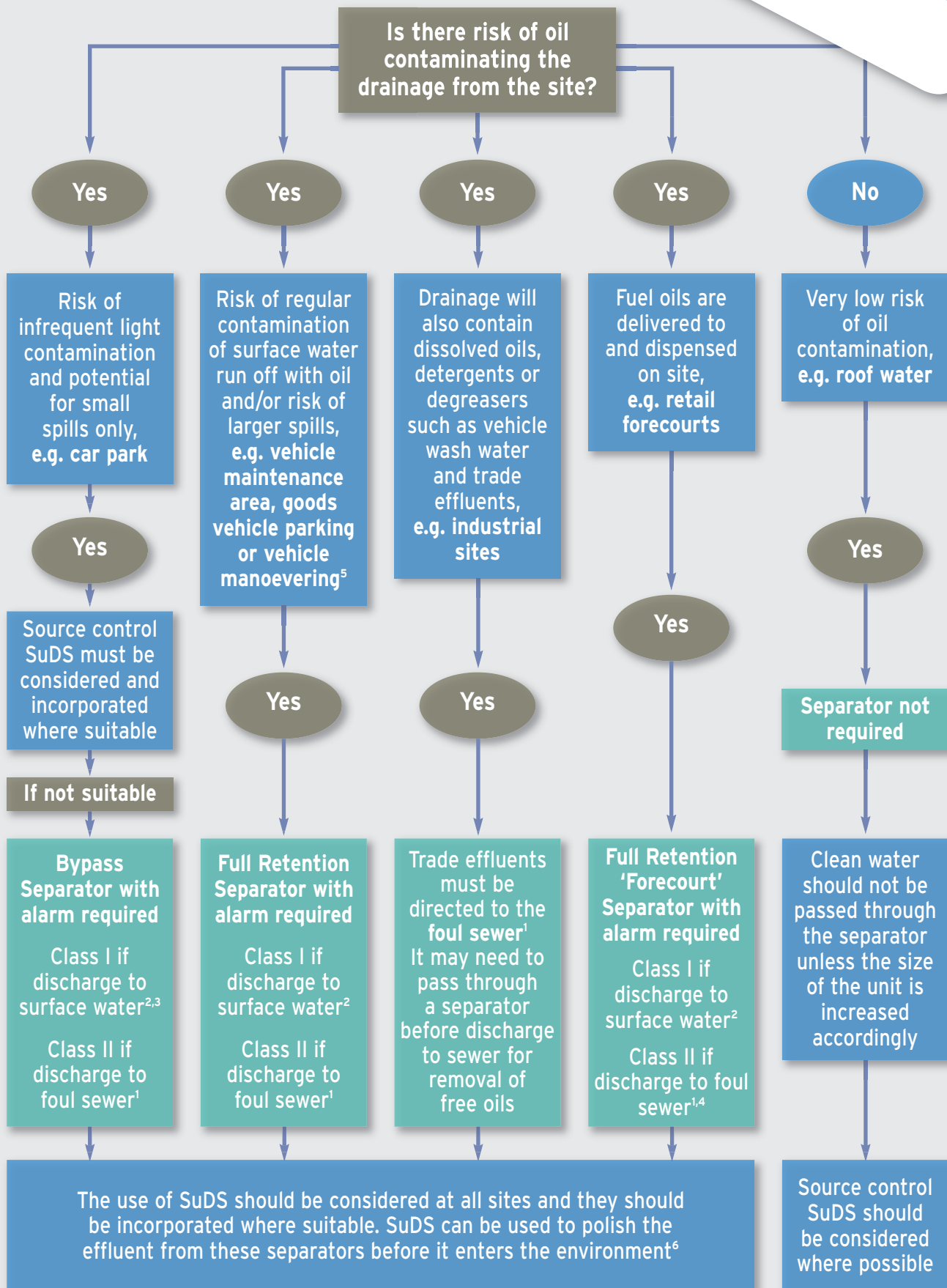
Forecourt separators are full retention separators specified to retain on site the maximum spillage likely to occur on a petrol filling station. They are required for both safety and environmental reasons and will treat spillages occurring during vehicle refuelling and road tanker delivery. The size of the separator is increased in order to retain the possible loss of the contents of one compartment of a road tanker, which may be up to 7,600 litres.

SELECTING THE RIGHT SEPARATOR

The chart on the following page gives guidance to aid selection of the appropriate type of fuel/oil separator for use in surface water drainage systems which discharge into rivers and soakaways.

For further detailed information, please consult the Environment Agency Pollution Prevention Guideline 03 (PPG 3) 'Use and design of oil separators in surface water drainage systems' available from their website.

Klargester has a specialist team who provide technical assistance in selecting the appropriate separator for your application.



¹ You must seek prior permission from your local sewer provider before you decide which separator to install and before you make any discharge.

² You must seek prior permission from the relevant environmental body before you decide which separator to install.

³ In this case, if it is considered that there is a low risk of pollution a source control SuDS scheme may be appropriate.

⁴ In certain circumstances, the sewer provider may require a Class 1 separator for discharges to sewer to prevent explosive atmospheres from being generated.

⁵ Drainage from higher risk areas such as vehicle maintenance yards and goods vehicle parking areas should be connected to foul sewer in preference to surface water.

⁶ In certain circumstances, a separator may be one of the devices used in the SuDS scheme. Ask us for advice.

Bypass NSB RANGE

APPLICATION

Bypass separators are used when it is considered an acceptable risk not to provide full treatment, for very high flows, and are used, for example, where the risk of a large spillage and heavy rainfall occurring at the same time is small, e.g.

- Surface car parks.
- Roadways.
- Lightly contaminated commercial areas.

PERFORMANCE

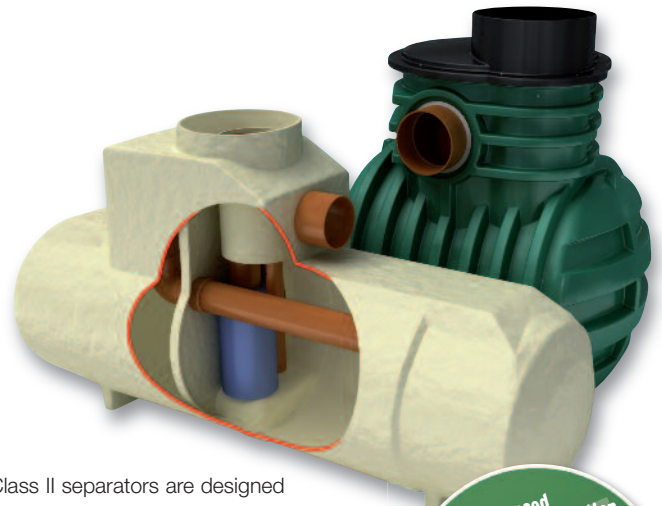
Klargester were one of the first UK manufacturers to have separators tested to EN 858-1. Klargester have now added the NSB bypass range to their portfolio of certified and tested models. The NSB number denotes the maximum flow at which the separator treats liquids. The British Standards Institute (BSI) tested the required range of Klargester full retention separators and certified their performance in relation to their flow and process performance assessing the effluent qualities to the requirements of EN 858-1. Klargester bypass separator designs follow the parameters determined during the testing of the required range of bypass separators.

Each bypass separator design includes the necessary volume requirements for:

- Oil separation capacity.
- Oil storage volume.
- Silt storage capacity.
- Coalescer.

The unit is designed to treat 10% of peak flow. The calculated drainage areas served by each separator are indicated according to the formula given by PPG3 $NSB = 0.0018A(m^2)$. Flows generated by higher rainfall rates will pass through part of the separator and bypass the main separation chamber.

Class I separators are designed to achieve a concentration of 5mg/litre of oil under standard test conditions.



Class II separators are designed to achieve a concentration of 100mg/litre of oil under standard test conditions.

FEATURES

- Light and easy to install.
- Class I and Class II designs.
- Inclusive of silt storage volume.
- Fitted inlet/outlet connectors.
- Vent points within necks.
- Oil alarm system available (required by EN 858-1 and PPG3).
- Extension access shafts for deep inverts.
- Maintenance from ground level.
- GRP or rotomoulded construction (subject to model).

Advanced rotomoulded construction on selected models

- Compact and robust
- Require less backfill
- Tough, lightweight and easy to handle

To specify a nominal size bypass separator, the following information is needed:-

- The calculated flow rate for the drainage area served. Our designs are based on the assumption that any interconnecting pipework fitted elsewhere on site does not impede flow into or out of the separator and that the flow is not pumped .
- The required discharge standard. This will decide whether a Class I or Class II unit is required.
- The drain invert inlet depth.
- Pipework type, size and orientation.

SIZES AND SPECIFICATIONS

UNIT NOMINAL SIZE	FLOW (l/s)	PEAK FLOW RATE (l/s)	DRAINAGE AREA (m ²)	STORAGE CAPACITY (litres)		UNIT LENGTH (mm)	UNIT DIA. (mm)	ACCESS SHAFT DIA. (mm)	BASE TO INLET INVERT (mm)	BASE TO OUTLET INVERT	STANDARD FALL ACROSS (mm)	MIN. INLET INVERT (mm)	STANDARD PIPEWORK DIA. (mm)
NSBP003	3	30	1670	300	45	1700	1350	600	1420	1320	100	500	160
NSBP004	4.5	45	2500	450	60	1700	1350	600	1420	1320	100	500	160
NSBP006	6	60	3335	600	90	1700	1350	600	1420	1320	100	500	160
NSBE010	10	100	5560	1000	150	2069	1220	750	1450	1350	100	700	315
NSBE015	15	150	8335	1500	225	2947	1220	750	1450	1350	100	700	315
NSBE020	20	200	11111	2000	300	3893	1220	750	1450	1350	100	700	375
NSBE025	25	250	13890	2500	375	3575	1420	750	1680	1580	100	700	375
NSBE030	30	300	16670	3000	450	4265	1420	750	1680	1580	100	700	450
NSBE040	40	400	22222	4000	600	3230	1920	600	2185	2035	150	1000	500
NSBE050	50	500	27778	5000	750	3960	1920	600	2185	2035	150	1000	600
NSBE075	75	750	41667	7500	1125	5841	1920	600	2235	2035	200	950	675
NSBE100	100	1000	55556	10000	1500	7661	1920	600	2235	2035	200	950	750
NSBE125	125	1250	69444	12500	1875	9548	1920	600	2235	2035	200	950	750

■ Rotomoulded chamber construction

■ GRP chamber construction

* Some units have more than one access shaft – diameter of largest shown.

Full Retention NSF RANGE

APPLICATION

Full retention separators are used in high risk spillage areas such as:

- Fuel distribution depots.
- Vehicle workshops.
- Scrap Yards

PERFORMANCE

Klargester were the first UK manufacturer to have the required range (3-30 l/sec) certified to EN 858-1 in the UK. The NSF number denotes the flow at which the separator operates.

The British Standards Institute (BSI) have witnessed the performance tests of the required range of separators and have certified their performance, in relation to their flow and process performance to ensure that they met the effluent quality requirements of EN 858-1. Larger separator designs have been determined using the formulas extrapolated from the test range.

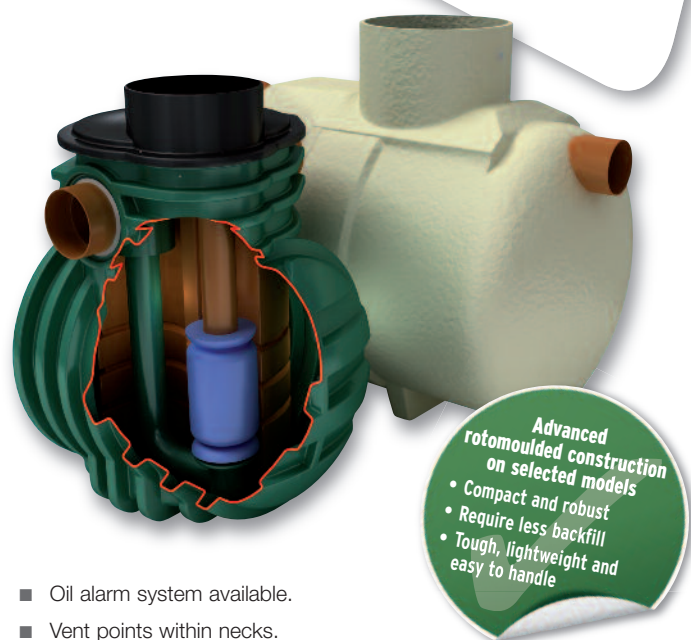
Each full retention separator design includes the necessary volume requirements for:

- Oil separation capacity.
- Oil storage volume.
- Silt storage capacity.
- Coalescer (Class I units only).
- Automatic closure device.

Klargester full retention separators treat the whole of the specified flow.

FEATURES

- Light and easy to install.
- Class I and Class II designs.
- 3-30 l/sec range independently tested and performance sampled, certified by the BSI.
- Inclusive of silt storage volume.
- Fitted inlet/outlet connectors.



- Oil alarm system available.
- Vent points within necks.
- Extension access shafts for deep inverts.
- Maintenance from ground level.
- GRP or rotomoulded construction (subject to model).

To specify a nominal size full retention separator, the following information is needed:-

- The calculated flow rate for the drainage area served. Our designs are based on the assumption that any interconnecting pipework fitted elsewhere on site does not impede flow into or out of the separator and that the influent is not pumped.
- The required discharge standard. This will decide whether a Class I or Class II unit is required.
- The drain invert inlet depth.
- Pipework type, size and orientation.

SIZES AND SPECIFICATIONS

UNIT NOMINAL SIZE	FLOW (l/s)	DRAINAGE AREA (m ²) PPG-3 (0.018)	STORAGE CAPACITY (litres)		UNIT LENGTH (mm)	UNIT DIA. (mm)	BASE TO INLET INVERT (mm)	BASE TO OUTLET INVERT	MIN. INLET INLET (mm)	STANDARD PIPEWORK DIA. (mm)
			SILT	OIL						
NSFP003	3	170	300	30	1700	1350	1420	1345	500	160
NSFP006	6	335	600	60	1700	1350	1420	1345	500	160
NSFA010	10	555	1000	100	2610	1225	1050	1000	500	200
NSFA015	15	835	1500	150	3910	1225	1050	1000	500	200
NSFA020	20	1115	2000	200	3200	2010	1810	1760	1000	315
NSFA030	30	1670	3000	300	3915	2010	1810	1760	1000	315
NSFA040	40	2225	4000	400	4640	2010	1810	1760	1000	315
NSFA050	50	2780	5000	500	5425	2010	1810	1760	1000	315
NSFA065	65	3610	6500	650	6850	2010	1810	1760	1000	315
NSFA080	80	4445	8000	800	5744	2820	2500	2450	1000	300
NSFA100	100	5560	10000	1000	6200	2820	2500	2450	1000	400
NSFA125	125	6945	12500	1250	7365	2820	2500	2450	1000	450
NSFA150	150	8335	15000	1500	8675	2820	2550	2450	1000	525
NSFA175	175	9725	17500	1750	9975	2820	2550	2450	1000	525
NSFA200	200	11110	20000	2000	11280	2820	2550	2450	1000	600

■ Rotomoulded chamber construction ■ GRP chamber construction

Washdown & Silt

APPLICATION

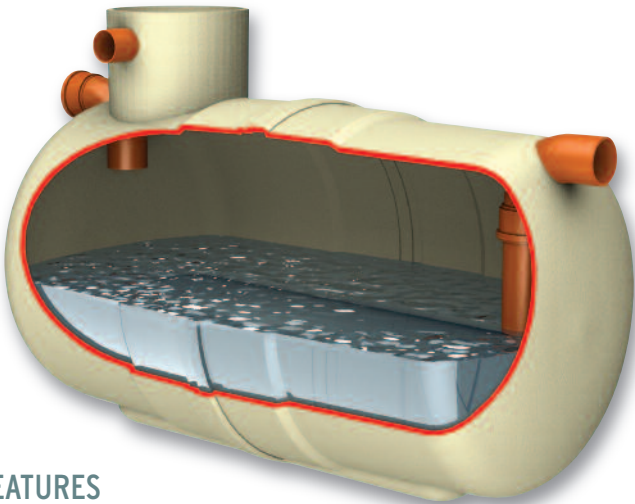
This unit can be used in areas such as car wash and other cleaning facilities that discharge directly into a foul drain, which feeds to a municipal treatment facility.

If emulsifiers are present the discharge must not be allowed to enter an NS Class I or Class II unit.

- Car wash.
- Tool hire depots.
- Truck cleansing.
- Construction compounds cleansing points.

PERFORMANCE

Such wash down facilities must not be allowed to discharge directly into surface water but must be directed to a foul connection leading to a municipal treatment works as they utilise emulsifiers, soaps and detergents, which can dissolve and disperse the oils.



FEATURES

- Light and easy to install.
- Inclusive of silt storage volume.
- Fitted inlet/outlet connectors.
- Vent points within necks.
- Extension access shafts for deep inverts.
- Maintenance from ground level.

SIZES AND SPECIFICATIONS

REF.	TOTAL CAPACITY (litres)	MAX. REC. SILT	MAX. FLOW RATE (l/s)	LENGTH (mm)	DIAMETER (mm)	ACCESS SHAFT DIA. (mm)	BASE TO INLET INVERT (mm)	BASE TO OUTLET INVERT (mm)	STANDARD FALL ACROSS UNIT (mm)	MIN. INLET INVERT (mm)	STANDARD PIPEWORK DIA. (mm)	APPROX EMPTY (kg)
W1/010	1000	500	3	1123	1225	460	1150	1100	50	500	160	60
W1/020	2000	1000	5	2074	1225	460	1150	1100	50	500	160	120
W1/030	3000	1500	8	2952	1225	460	1150	1100	50	500	160	150
W1/040	4000	2000	11	3898	1225	460	1150	1100	50	500	160	180
W1/060	6000	3000	16	4530	1440	600	1360	1310	50	500	160	320
W1/080	8000	4000	22	3200	2020	600	2005	1955	50	500	160	585
W1/100	10000	5000	27	3915	2020	600	2005	1955	50	500	160	680
W1/120	12000	6000	33	4640	2020	600	2005	1955	50	500	160	770
W1/150	15000	7500	41	5435	2075	600	1940	1890	50	500	160	965
W1/190	19000	9500	52	6865	2075	600	1940	1890	50	500	160	1200

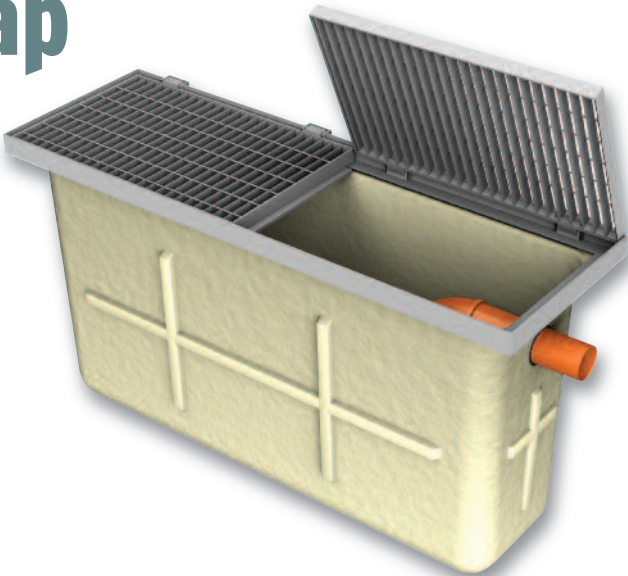
Car Wash Silt Trap

APPLICATION

Car Wash silt trap is designed for use before a separator in car wash applications to ensure effective silt removal.

FEATURES

- FACTA Class B covers.
- Light and easy to install.
- Maintenance from ground level.



Forecourt

APPLICATION

The forecourt separator is designed for installation in petrol filling station forecourts and similar applications. The function of the separator is to intercept hydrocarbon pollutants such as petroleum and oil and prevent their entry to the drainage system, thus protecting the environment against hydrocarbon contaminated surface water run-off and gross spillage.

PERFORMANCE

Operation ensures that the flow cannot exit the unit without first passing through the coalescer assembly.

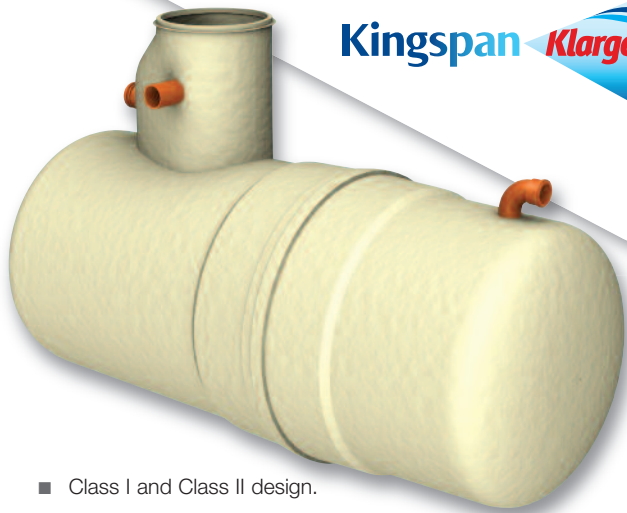
In normal operation, the forecourt separator has sufficient capacity to provide storage for separated pollutants within the main chamber, but is also able to contain up to 7,600 litres of pollutant arising from the spillage of a fuel delivery tanker compartment on the petrol forecourt. The separator has been designed to ensure that oil cannot exit the separator in the event of a major spillage, subsequently the separator should be emptied immediately.

FEATURES

- Light and easy to install.
- Inclusive of silt storage volume.
- Fitted inlet/outlet connectors.
- Vent points within necks.
- Extension access shafts for deep inverts.
- Maintenance from ground level.

SIZES AND SPECIFICATIONS

ENVIROCEPTOR CLASS	TOTAL CAP. (litres)	DRAINAGE AREA (m²)	MAX. FLOW RATE (l/s)	LENGTH (mm)	DIAMETER (mm)	ACCESS SHAFT DIA. (mm)	BASE TO INLET INVERT (mm)	BASE TO OUTLET INVERT (mm)	STD. FALL ACROSS UNIT (mm)	MIN. INLET INVERT (mm)	STD. PIPEWORK (mm)	EMPTY WEIGHT (kg)
I	10000	555	10	3963	1920	600	2110	2060	50	400	160	500
II	10000	555	10	3963	1920	600	2110	2060	50	400	160	500
I	10000	1110	20	3963	1920	600	2110	2060	50	400	200	500
II	10000	1110	20	3963	1920	600	2110	2060	50	400	200	500



- Class I and Class II design.
- Oil storage volume.
- Coalescer (Class I unit only).
- Automatic closure device.
- Oil alarm system available.

INSTALLATION

The unit should be installed on a suitable concrete base slab and surrounded with concrete or pea gravel backfill. See sales drawing for installation.

If the separator is to be installed within a trafficked area, then a suitable cover slab must be designed to ensure that loads are not transmitted to the unit.

The separator should be installed and vented in accordance with Health and Safety Guidance Note HS(G)41 for filling stations, subject to Local Authority requirements.

Alarm Systems

British European Standard EN 858-1 and Environment Agency Pollution Prevention Guideline PPG3 requires that all separators are to be fitted with an oil level alarm system and that it should be installed and calibrated by a suitably qualified technician so that it will respond to an alarm condition when the separator requires emptying.

- Easily fitted to existing tanks.
- Excellent operational range.
- Visual and audible alarm.
- Additional telemetry option.



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Certificate No. OHS 563604



In keeping with Company policy of continuing research and development and in order to offer our clients the most advanced products, Kingspan Environmental reserves the right to alter specifications and drawings without prior notice.

Issue No. 20: August 2014

APPENDIX D

OPW National Hazard Mapping

Summary Local Area Report

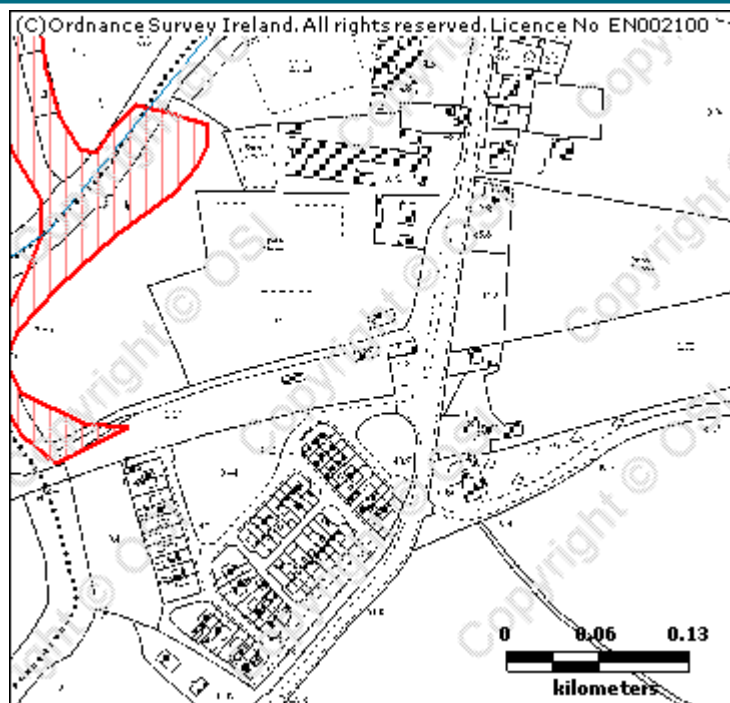
This Flood Report summarises all flood events within 2.5 kilometres of the map centre.

The map centre is in:

County: Offaly

NGR: N 114 241

This Flood Report has been downloaded from the Web site www.floodmaps.ie. The users should take account of the restrictions and limitations relating to the content and use of this Web site that are explained in the Disclaimer box when entering the site. It is a condition of use of the Web site that you accept the User Declaration and the Disclaimer.



Map Scale 1:5,215

Map Legend	
	Flood Points
	Multiple / Recurring Flood Points
	Areas Flooded
	Hydrometric Stations
	Rivers
	Lakes
	River Catchment Areas
	Land Commission *
	Drainage Districts *
	Benefiting Lands *

* Important: These maps do not indicate flood hazard or flood extent. Thier purpose and scope is explained in the Glossary.

0 Results

APPENDIX E

National Park and Wildlife Services Map

**APPROPRIATE ASSESSMENT SCREENING
REPORT FOR PLANNING APPLICATIONS**

Screening is used to determine if an AA is necessary by examining:

- If the plan / project is directly connected with / necessary to the management of the European site.
- If the effects will be significant on a European site in view of its conservation objectives, either alone / in combination with projects.



Planning Authority: OCC

(A) DESCRIPTION OF PROJECT AND LOCAL SITE:			
Proposed development:	Fire Station		
Site location:	Gallen, Ferbane, Co. Offaly		
Site size:	0.217ha	Floor Area of Proposed Development:	325sqm
Identification of nearby European Site(s):	Ferbane Bog		
Distance to European Site(s):	1.7km as the crow flies		
The characteristics of existing, proposed or other approved plans / projects which may cause interactive / cumulative impacts with the project being assessed and which may affect the European site:	None		
Is the application accompanied by an EIS?	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>	
(B) IDENTIFICATION OF THE RELEVANT EUROPEAN SITE(S):			
The reasons for the designation of the European site(s):			
Raised bog			
The conservation objectives / qualifying interests of the site and the factors that contributes to the conservation value of the site: (which are taken from the European site synopses and, if applicable, a Conservation Management Plan; all available on www.npws.ie) (ATTACH INFO.)			
PLEASE SEE SITE SYNOPSIS SHEET ATTACHED.			
(C) NPWS ADVICE:			
Advice received from NPWS over phone:	None Received		
Summary of advice received from NPWS in written form (ATTACH SAME):	None Received		

(D) ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS:	
(The purpose of this is to identify if the effect(s) identified could be significant – if uncertain assume the effect(s) are significant).	
If the answer is 'yes' to any of the questions below, then the effect is significant. (Please justify your answer. 'Yes' / 'No' alone is insufficient)	
Would there be... ... any impact on an Annex 1 habitat? (Annex 1 habitats are listed in Appendix 1 of AA Guidance).	Not likely due to the location and type of development development.rea, The site is sufficient distance from the European site.
... a reduction in habitat area on a European site?	There will be no reduction in the habitat area. The site is sufficient distance from the European site.
... direct / indirect damage to the physical quality of the environment (e.g. water quality and supply, soil compaction) in the European site?	Not likely due to the location and type of development The site is sufficient distance from the European site.
... serious / ongoing disturbance to species / habitats for which the European site is selected (e.g. because of increased noise, illumination and human activity)?	Not likely due to the location and type of development The site is sufficient distance from the European site.
... direct / indirect damage to the size, characteristics or reproductive ability of populations on the European site?	None likely due to the location and type of development The site is sufficient distance from the European site
Would the project interfere with mitigation measures put in place for other plans / projects. [Look at <i>in-combination effects</i> with completed, approved but not completed, and proposed plans / projects. Look at projects / plans within and adjacent to European sites and identify them]. Simply stating that there are no cumulative impacts' is insufficient.	No other plans known of in the vicinity of the site. The site is sufficient distance from the European site.
(E) SCREENING CONCLUSION:	
Screening can result in:	
1.	AA is not required because the project is directly connected with / necessary to the nature conservation management of the site.
2.	No potential for significant effects / AA is not required.
3.	Significant effects are certain, likely or uncertain. (In this situation seek a Natura Impact Statement from the applicant, or reject the project. Reject if too potentially damaging / inappropriate.
Therefore, does the project fall into category 1, 2 or 3 above?	
Category 2	
Justify why it falls into relevant category above:	There would be no likely significant impact on the European site from the proposed development due to the scale of the proposed development and the separation distance between the subject site and European Site.
Name:	Eoin O'Ceilleachair
Position:	Chief Fire Officer
Date:	8 th July 2015



Query

10K Grid (1 found)

10Km Square

Species

N12

N12

N12

N12

Natural Heritage Areas (0 found)	
Proposed Natural Heritage Areas (0 found)	
Special Areas of Conservation (0 found)	
Special Protected Areas (0 found)	

Legend

NPWS

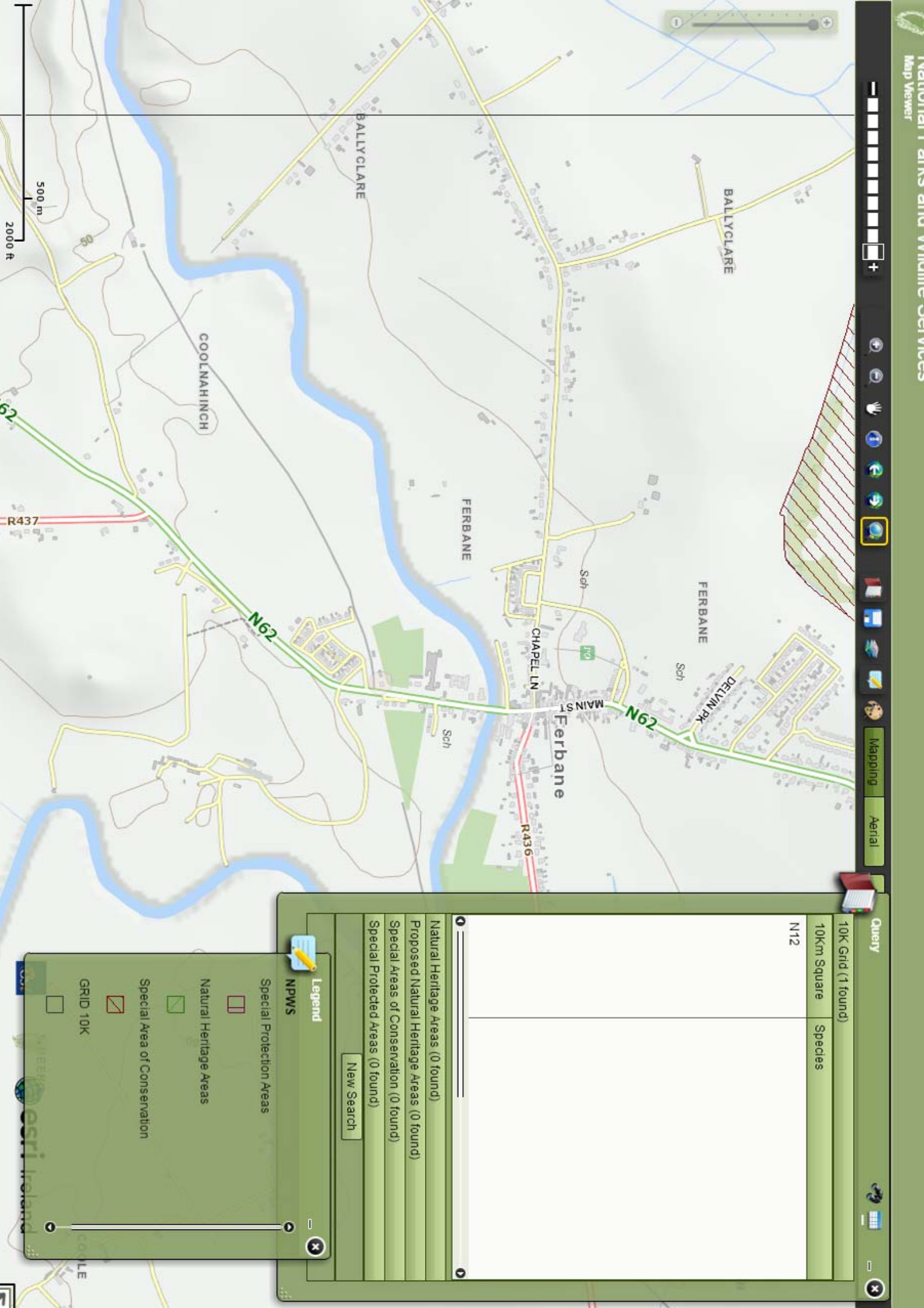
Special Protection Areas

Natural Heritage Areas

Special Area of Conservation

GRID 10K

New Search





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