+

Proposed Care Home, Clitheroe

Construction Surface Water Management & Wastewater Management Plan

Issued To Discharge Planning Condition 3/2023/0305 No 15

27th February 2024 Rev2

Contents

15. No development shall commence until a Construction Surface Water Management Plan, detailing how surface water and stormwater will be managed on the site during construction, including demolition and site clearance operations, has been submitted to and approved in writing by the Local Planning Authority.

The details of the plan to be submitted for approval shall include method statements, scaled and dimensioned plans and drawings detailing surface water management proposals to include for each phase, as a minimum:
a) Measures taken to ensure surface water flows are retained on-site during the construction phase(s), including temporary drainage systems, and, if surface water flows are to be discharged, they are done so at a restricted rate that must not exceed the equivalent greenfield runoff rate from the site.
b) Measures taken to prevent siltation and pollutants from the site entering any receiving groundwater and/or surface waters, including watercourses, with reference to published guidance.
The plan shall be implemented and thereafter managed and maintained in accordance with the approved plan for the duration of construction.

REASON: To ensure the development is served by satisfactory arrangements for the disposal of surface water during each construction phase(s) so it does not pose an undue surface water flood risk on-site or elsewhere during any construction phase in accordance with Paragraph 167 of the National Planning Policy Framework.

Introduction & Aim

The requirement for a Construction Surface Water Management Plan (CSWMP) is based on the duty to ensure that surface water quality and quantity is managed throughout the construction process to mitigate impacts off site.

Site Details

Proposed construction of a 68-bed residential care home, related infrastructure and landscaping at former Higher Standen Farm (adjacent Swardean Way Valley Lane Higher Peak Crescent South Gate Broadfield Street) Pendle Road Clitheroe BB7 1PR

Project Team

Client	Wrightcare
Architect	Cassidy & ashton
Structural Consultant	JPS
Landscape Architect	TEL
Principal Designer	Eric Wright Construction Ltd
Principal Contractor	Eric Wright Construction Ltd

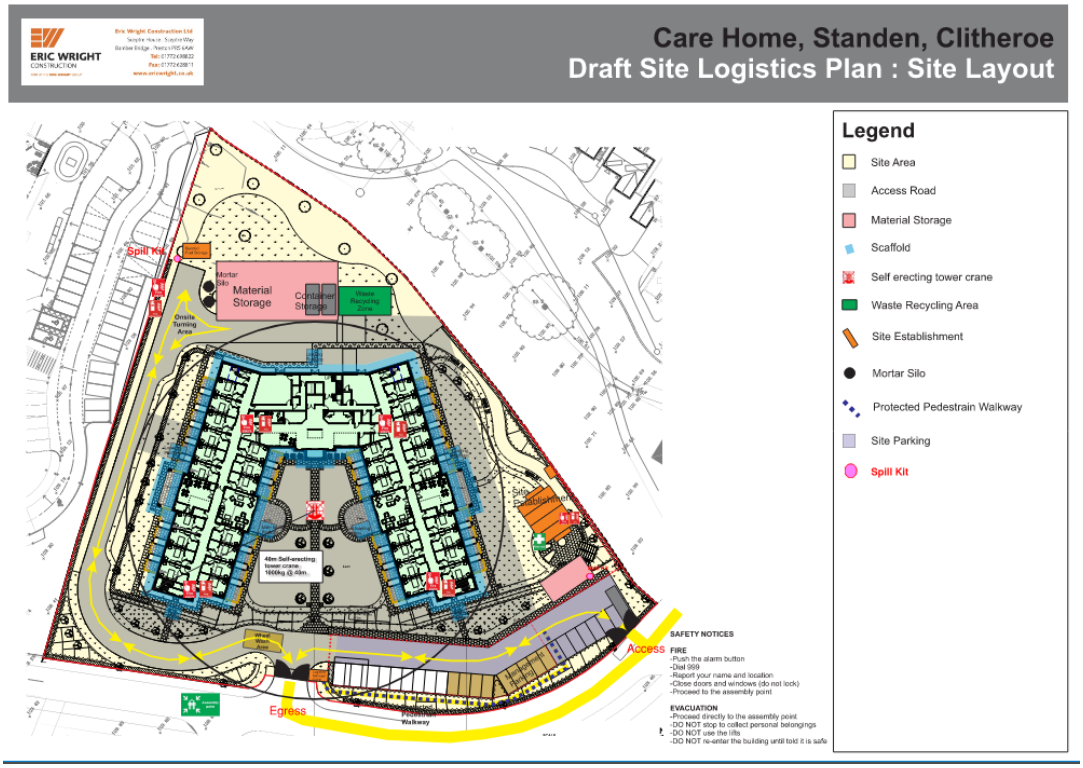
Emergency Contact Number

EWC Operations Manager	Mark Green	Tel: 01772698822
EWC Project Manager	TBC	Tel: TBC

Project Programme

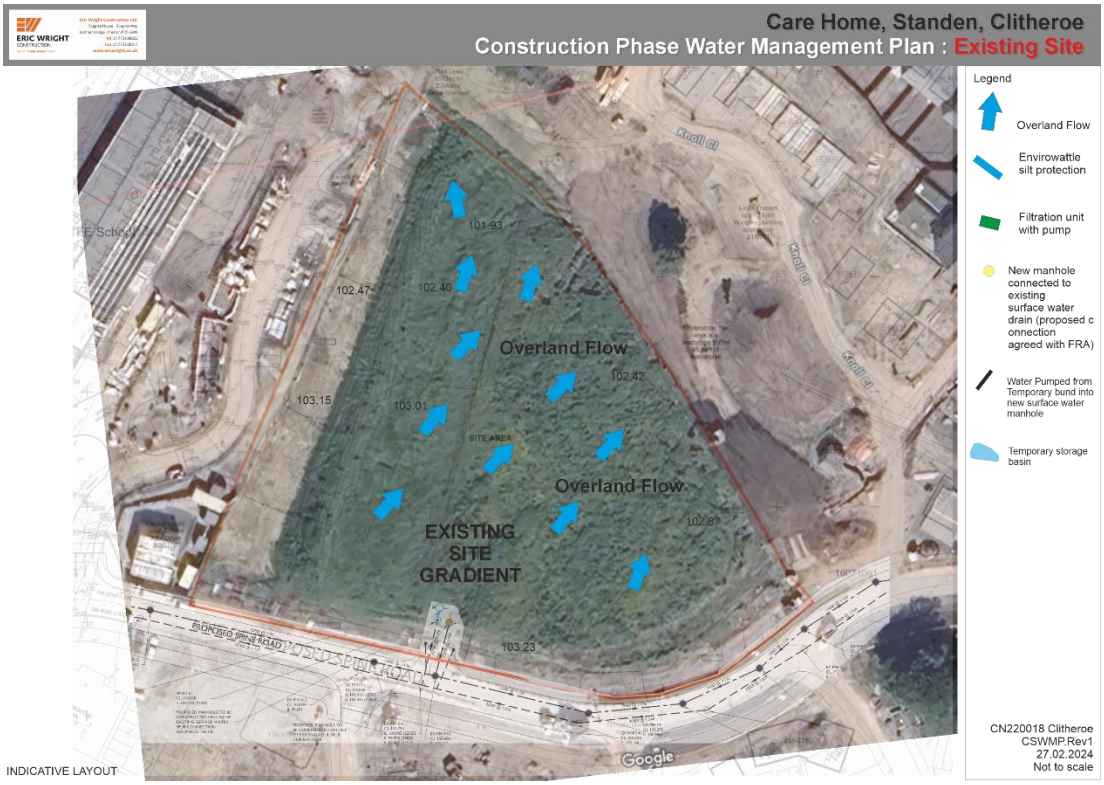
Site Commencement	2nd Quarter 2024
Project Completion	4th Quarter 2025

Site Plan



Existing Site Drainage

The plan below illustrates how the site currently works in regards to overland water run off



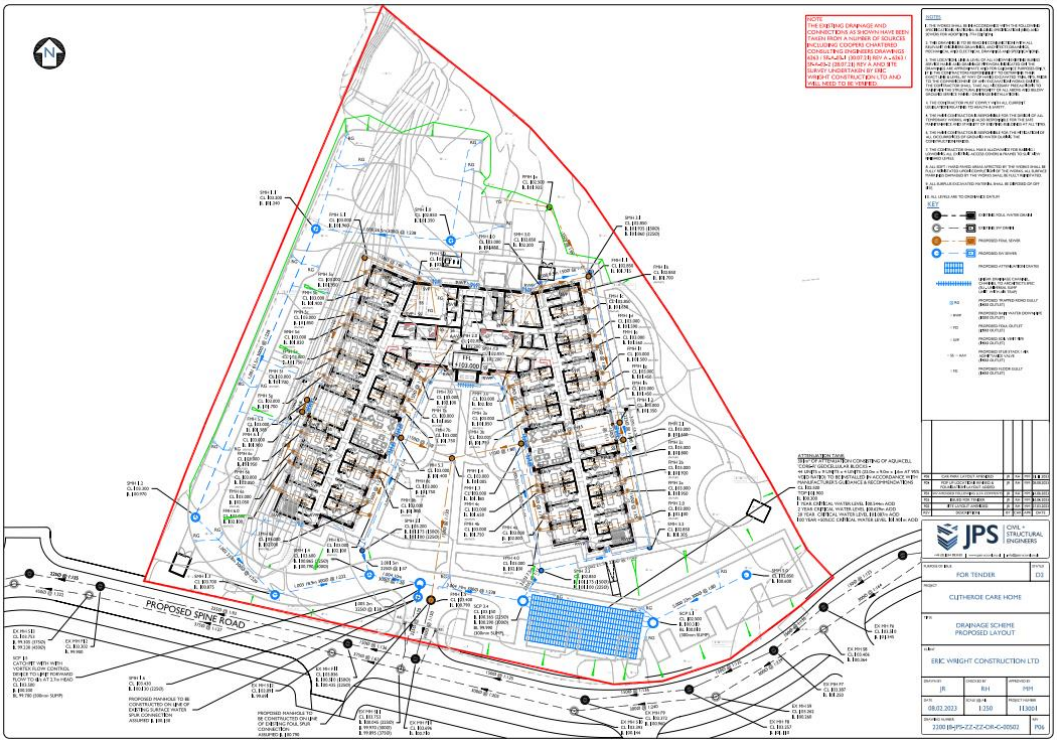
Scheme on Completion

Ground Infiltration Techniques testing has been undertaken by E3P (reports submitted with the planning application) in accordance with the guidelines in BRE365. Within all the locations, soakaway testing failed.

As such the disposal of surface water via infiltration has been discounted for the site for the permanent Surface Water Drainage scheme.

Final discharge of surface water has been proposed with runoff from the site to the existing manhole S11 connected via a new 225mm diameter spur connection currently present in the south of the site.

This is indicated on the preliminary drainage layout.



The existing system discharges to the unnamed watercourse to the west of the site that ultimately discharges to Pendleton Brook.

Managing Surface Water During Construction

We are proposing a phased approach to the management of Construction Water onsite to offsite.

Enabling Works

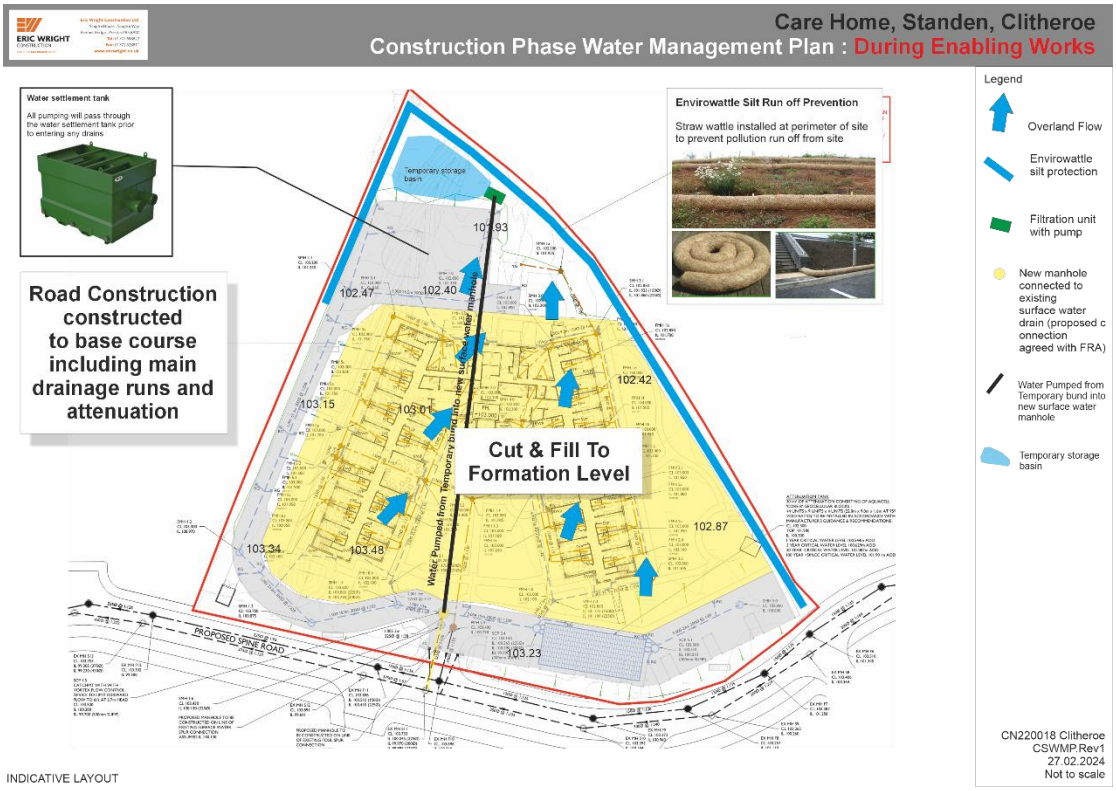
We have identified the need for an enabling works package which will include;

- Setting up Environmental Protection Construction Water Management Plan
- Site Strip
- Excavate to Reduce levels and Site Formation Works
- Main Drainage Installation and Attenuation Installation
- Construct road up to base course

At commencement we will construct a temporary storage basin at the rear of the site to capture any surface water run off during the enabling works, this will be connected via a silt trap to prevent silt, soil, sediment etc from entering the drainage system before being discharged into the newly constructed onsite manhole and onwards to manhole S11.

The plans indicate the surface water sewers situated within the proposed spine road have been designed to accommodate a proposed discharge rate of 11 l/s from this development. Accordingly, it is proposed to restrict runoff from impermeable surfaces of the development to 11 l/s which will be the same as the permanent solution.

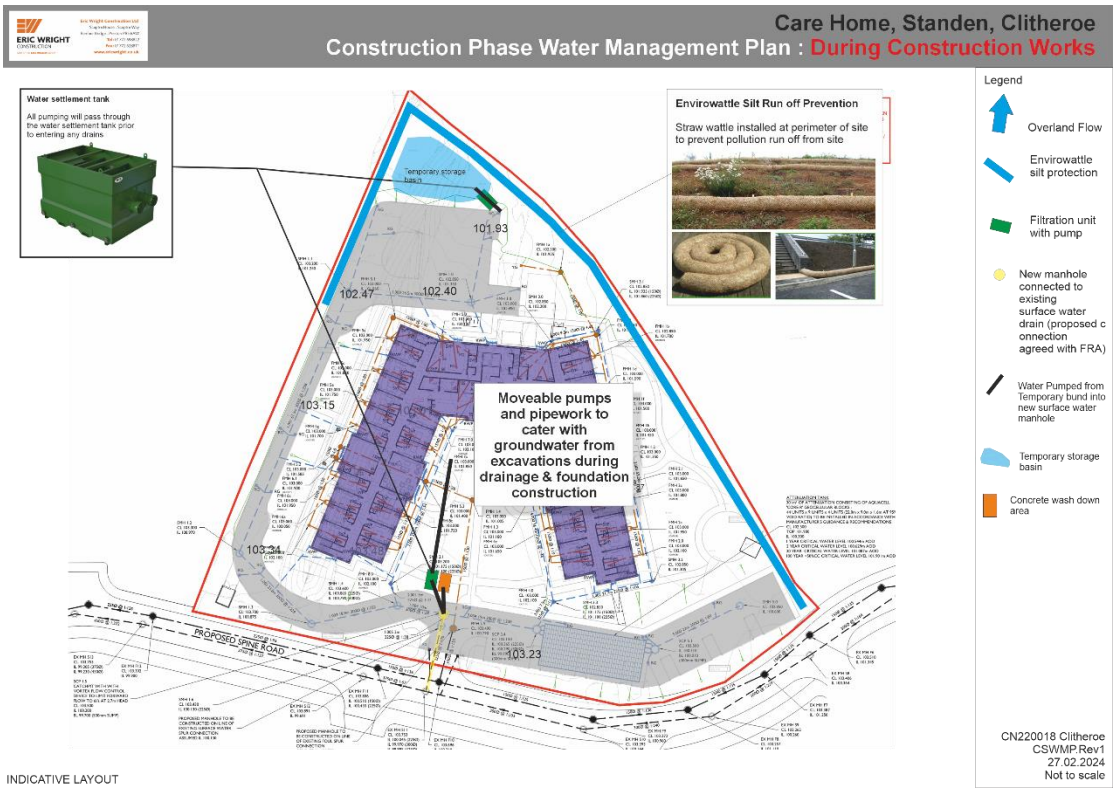
In addition to the temporary storage basin we will install straw wattle protection to the rear of the site which is where the water may run off due to the existing site gradients.



Following the installation of the measures identified above, we will undertake the cut and fill, main drainage installation and construction of the road upto base course. The early installation of the drainage installation will assist with the management of construction water during the main construction phase of the works

Main Construction Phase

In terms of surface water run-off and pollution during the construction phases, this will be managed appropriately by Eric Wright Construction during the construction phase using the following mitigation measures:



INDICATIVE LAYOUT

Water From Excavations

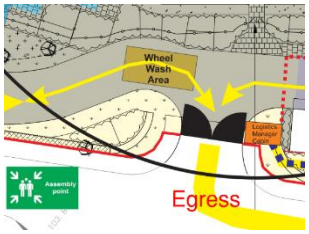
This will be managed by movable pumps and lines discharging into a silt settlement tank before being discharged into the surface water drain.

Spill Kits

Spill kits would be positioned at all re-fuelling areas and all fuel areas will be bunded, indicative locations have been indicated on the logistics plans.

Wheel Wash Facilities

Eric Wright Group Ltd ensures that the working machinery, plant & vehicles, which may have the potential to cause an excessive dust, water and mud problem onto the public highway, will have the facility to wash down. This will be placed at a strategic point near to the road exit of the site, to prevent the mud being carried on to the road, with the addition of a road sweeper.



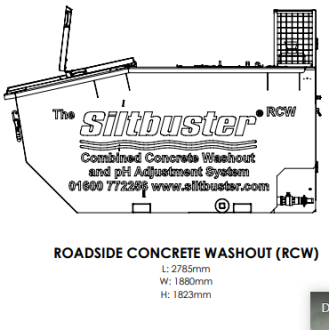
other Projects a spray gun is seen as sufficient as below. The gateman will manage this.
We will employ Silt buster water treatment plant at the washdown area to capture waste water run off

Should drive-on wheel washes be required following further dust assessments and/or resident feedback this facility will be installed. This water from wheel washing facilities and wash down areas is contained and not allowed to soak into surrounding ground. The used water is channelled to a containment tank. Water from a wheel wash is to be recycled and reused.

Concrete Wash Down Area

A siltbuster (or similar) concrete wash down facility will be installed in a location at the egress point from site, this self-contained treatment system will enable water to be treated, stored and re-used for wash down purposes;

- Effectively capture the concrete wash water and associated aggregate
- Aggregates are retained and any bleed waters and fine material are captured in the low-level tray
- The alkaline waters weir out of the tray and will finally be stored, in a fully automated process, in the grey water storage tank for reuse
- A digital pH controller constantly monitors the pH of the water, automatically neutralising the wash water with carbon dioxide (CO2) to reduce the pH, removing risk to both the environment and to any operators
- The treated grey water can be reused via the integrated pump and hose
- Multi-functional with a tiny footprint and easy to transport and operate (can be shipped via conventional pallet networks)
- Enabling contractors to easily follow best environmental practise



The exact location of the concrete wash down area is to be determined.

Water Discharge from the Silt Busters

Any on site surplus water discharge required will be discharged into the surface water network subject to the appropriate licences being obtained, and agreeing the maximum discharge rates with LCC LLFA

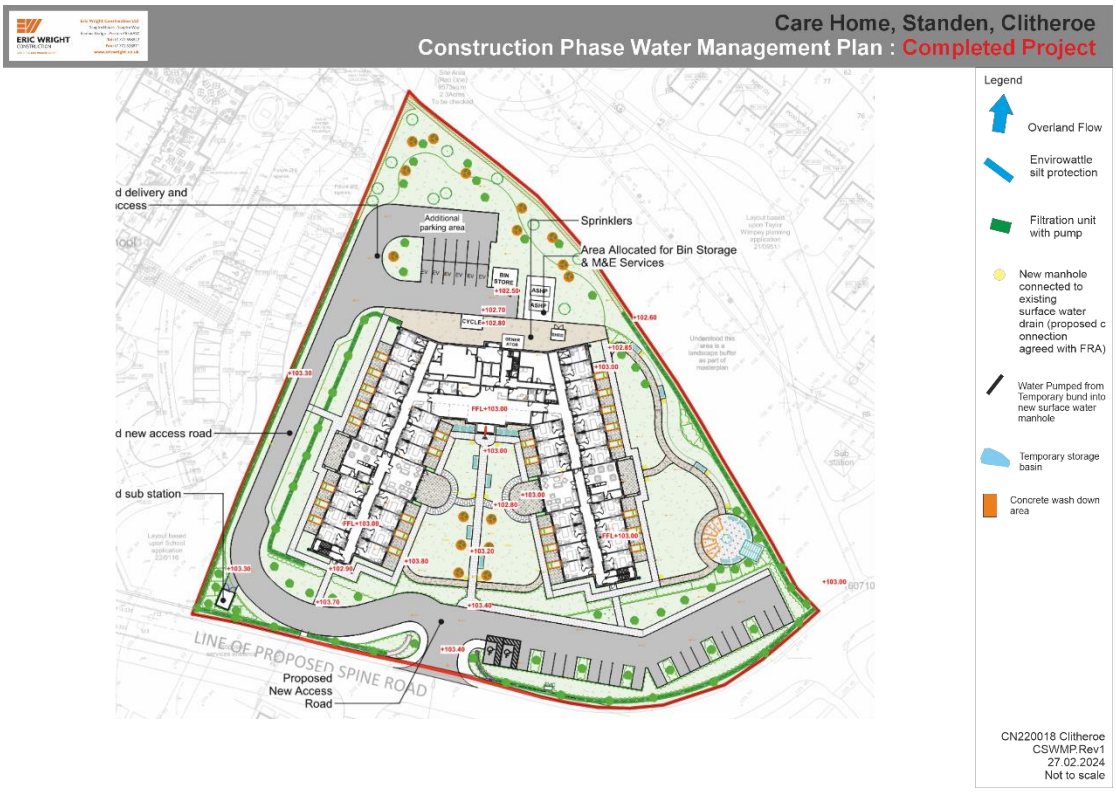
Road Sweepers

Road sweepers will be used as required to keep hard standing areas free from build up as much as reasonably practicable. All collected build up will be tipped off site.

Site Inductions

All operatives will be given a site induction and briefed on the environmental risks that our construction activities pose to the surrounding water courses, with regular toolbox talks being given on the correct use of spill kits, wash down areas etc.

Site at Project Completion



Flooding & Weather Alert

Eric Wright Group Ltd Project Management Project Manager and Site Managers sign up to the Environmental Agency flood warning system https://www.gov.uk/sign-up-for-flood-warnings if the site is within a flood zone 2 or 3.

Based the Environment Agency Flood Zone Map, as presented in Figure 1, the Site is located within Flood Zone 1 (less than 1 in 1000 annual probability of river or sea flooding in any year) which is defined as having a low probability of flooding in the Planning Practice Guidance to the NPPF.

The site is predominantly located within a currently defined "Flood Risk Zone 1"; defined as land assessed as having less than 1 in 1,000 annual probabilities of river or sea flooding (< 0.1%), and as such is considered to be unaffected by river flooding. In addition, the Groundsure report states there is a low risk of groundwater flooding to occur at the site. The Environment Agency (EA) Flood Risk Map for the site is presented below.

The nearest surface water feature is a drainage ditch 40 m northwest of the site. There are no other surface water features within 250 m of the subject site.

Weather Alerts (Surface Water Flood Risk)

Eric Wright Group Ltd Project Management Project Manager and Site Manager should sign up to the Met Office weather warning system https://www.metoffice.gov.uk/public/weather/warnings

Alert Level	Definition	Action	Responsibility
Yellow: Be Aware	Yellow warnings can be issued for a range of weather situations. Many are issued when it is likely that the weather will cause some low level impacts, including some disruption to travel in a few places. Other yellow warnings are issued when the weather could bring much more severe impacts to many people but the certainty of those impacts occurring is much lower. It is important to read the content of yellow warnings to determine which weather situation is being covered by the yellow warning.	Walk the site ensuring controls in place	Project Manager, Logistics/Site Manager, groundworker
Amber: Be Prepared	There is an increased likelihood of impacts from severe weather, which could potentially disrupt your works plans. This means there is the possibility of travel delays, road and rail closures, power cuts and the potential risk to life and property.	Clear slip trenches, ensure all hazardous waste stores in good order, ensure bunds are in place and clear in preparation for the weather. Ensure project specific drainage controls are in place.	Project Manager, Logistics/Site Manager, groundworker
Red: Take Action	Dangerous weather is expected and, if you haven't already done so, you should take action now to keep yourself and your works force safe from the impact of the severe weather. It is very likely that there will be a risk to life, with substantial disruption to travel, energy supplies and possibly widespread. You should avoid travelling, where possible, and follow the advice of the emergency services and local authorities.	Clear slip trenches, ensure all hazardous waste stores in good order, ensure bunds are in place and clear in preparation for the weather. Ensure project specific drainage controls are in place.	Project Manager, Logistics/Site Manager, groundworker

Environmental Management Toolkit

Over the past 25 years, the world has become increasingly aware of the plethora of environmental issues it faces, including global warming, air pollution, plastics, waste, ozone depletion, water pollution, resource depletion, biodiversity loss, environmental degradation and climate change.

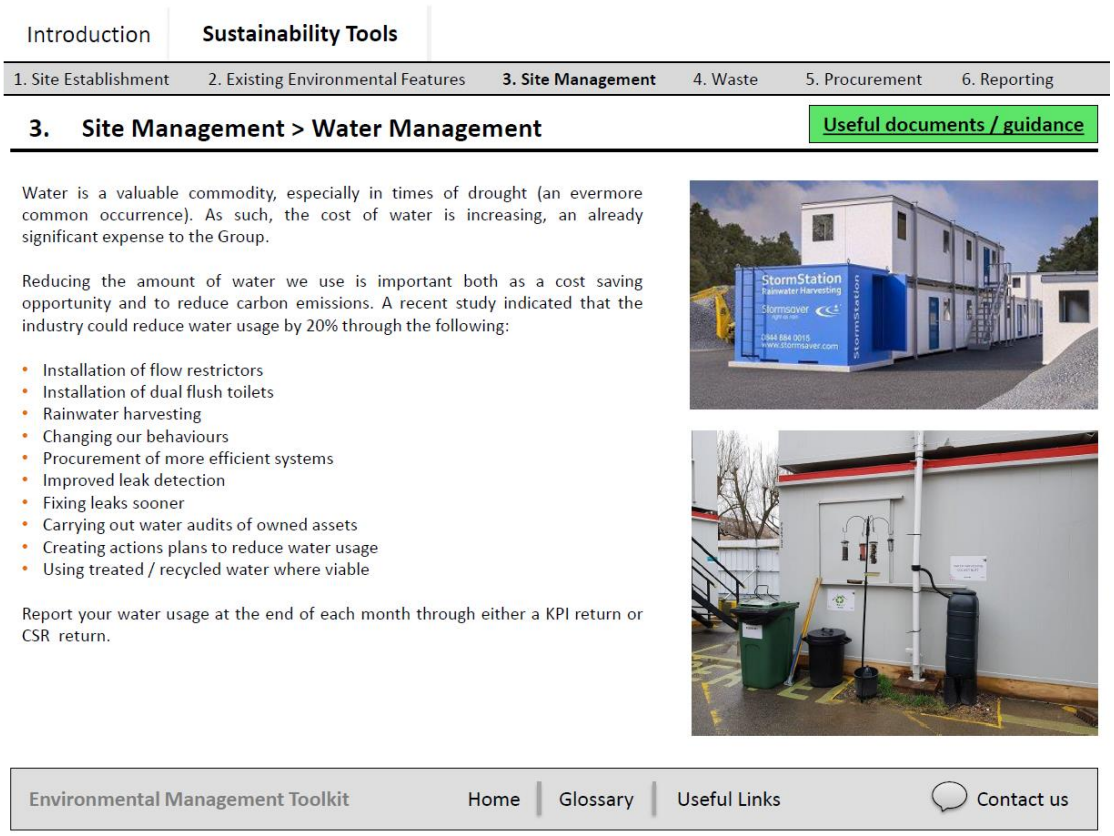
As one of the least environmentally friendly industries in the world, we are central to sustainable development policies and as such, are coming under increasing pressure from government legislation, client demands, international targets, European targets and shareholders.

The construction industry has a major role to ensure that the built environment is shaped to deliver a sustainable future and reduce a number of environmental pressures, both globally and locally.
The benefits to our business from improving our environmental performance are significant, from complying with law and policy, ensuring natural resources are passed to future generations, and benefitting our bottom line.

This toolkit has been created as a 'one stop shop' for environmental issues throughout all phases of a development. It includes topic specific legislative requirements, guidance documents, procedures, work instructions, checklists and best practice.

The toolkit should be used in partnership with the Quality & Environmental Department.

Toolkit Extract;



Legislation & Guidance

The Water Environment (England and Wales) regulation 2009
Land Drainage Act 1991
SEPA Engineering in the Water Environment Good Practice Guide Temporary Construction Methods

Methods
Control of Water Pollution from Construction Sites – Guide to Good Practice (SP156)
Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors (C532)
Control of Water Pollution from Linear Construction Projects – Technical Guidance (C648
Control of Water Pollution from Linear Construction Projects – Site Guide (C649)
Environmental Good Practice – Site Guide (C650)
The SUDS Manual (C753)
BS 8582:2013 Code of practice for surface water management for development sites
BS 8582:2013 Code of practice for surface water management for development sites

EWC Accreditation and Environmental Policies

See appended;

ISO 14001 Environmental Management System Certificate
EWG-E-P-001 Environmental Policy
Sustainability Gold Standard Certificates

ERIC WRIGHT CONSTRUCTION
PART OF THE ERIC WRIGHT GROUP

Eric Wright Construction Ltd
Sceptre House . Sceptre Way
Bamber Bridge . Preston PR5 6AW
Tel: 01772 698822
Fax: 01772 628811
www.ericwright.co.uk

Care Home, Standen, Clitheroe
Construction Phase Water Management Plan : Existing Site

(Red Line)
9573sq m
2.3Acres
To be checked

101.93

102.47

102.40

Overland Flow

102.42

103.15

103.01

SITE AREA

Overland Flow

102.87

EXISTING
SITE
GRADIENT

103.23

Future 2FE spaces

Future 2FE spaces

Layout based upon School application 22/0118

Layout based upon Taylor Wimpey planning application 21/0951

Understood this area is a landscape buffer as part of masterplan

Knoll Cl

PROPOSED SPINE ROAD

Sub station

INDICATIVE LAYOUT

Legend

- Overland Flow
- Envirowattle silt protection
- Filtration unit with pump
- New manhole connected to existing surface water drain (proposed c onnection agreed with FRA)
- Water Pumped from Temporary bund into new surface water manhole
- Temporary storage basin

CN220018 Clitheroe
CSWMP.Rev1
27.02.2024
Not to scale

ERIC WRIGHT CONSTRUCTION
PART OF THE ERIC WRIGHT GROUP

Eric Wright Construction Ltd
Sceptre House . Sceptre Way
Bamber Bridge . Preston PR5 6AW
Tel: 01772 698822
Fax: 01772 628811
www.ericwright.co.uk

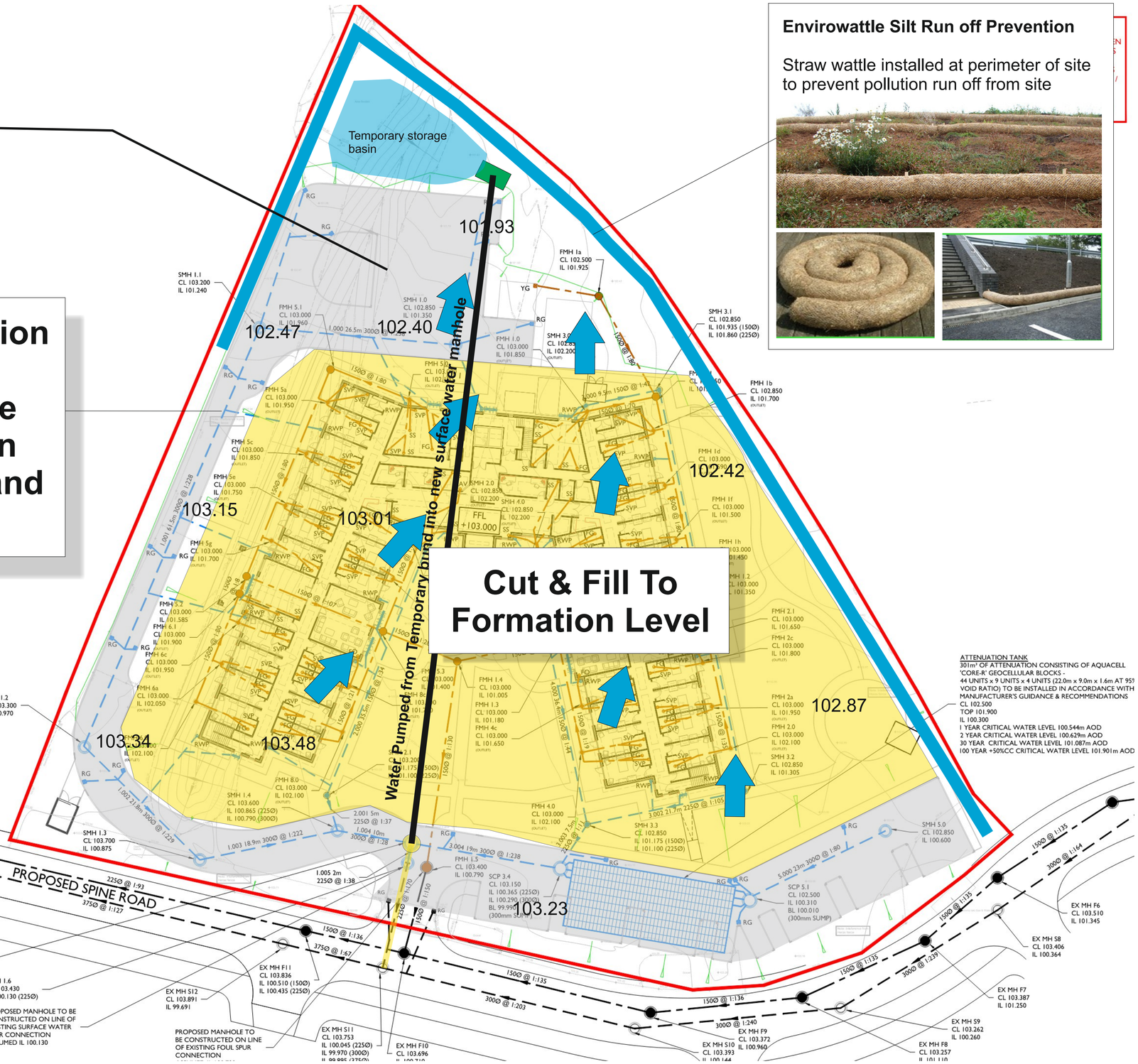
Care Home, Standen, Clitheroe

Construction Phase Water Management Plan : During Enabling Works

Water settlement tank

All pumping will pass through the water settlement tank prior to entering any drains

Road Construction constructed to base course including main drainage runs and attenuation



Envirowattle Silt Run off Prevention

Straw wattle installed at perimeter of site to prevent pollution run off from site

INDICATIVE LAYOUT

Legend

- Overland Flow
- Envirowattle silt protection
- Filtration unit with pump
- New manhole connected to existing surface water drain (proposed connection agreed with FRA)
- Water Pumped from Temporary bund into new surface water manhole
- Temporary storage basin

CN220018 Clitheroe
CSWMP.Rev1
27.02.2024
Not to scale

ERIC WRIGHT CONSTRUCTION
PART OF THE ERIC WRIGHT GROUP

Eric Wright Construction Ltd
Sceptre House . Sceptre Way
Bamber Bridge . Preston PR5 6AW
Tel: 01772 698822
Fax: 01772 628811
www.ericwright.co.uk

Care Home, Standen, Clitheroe

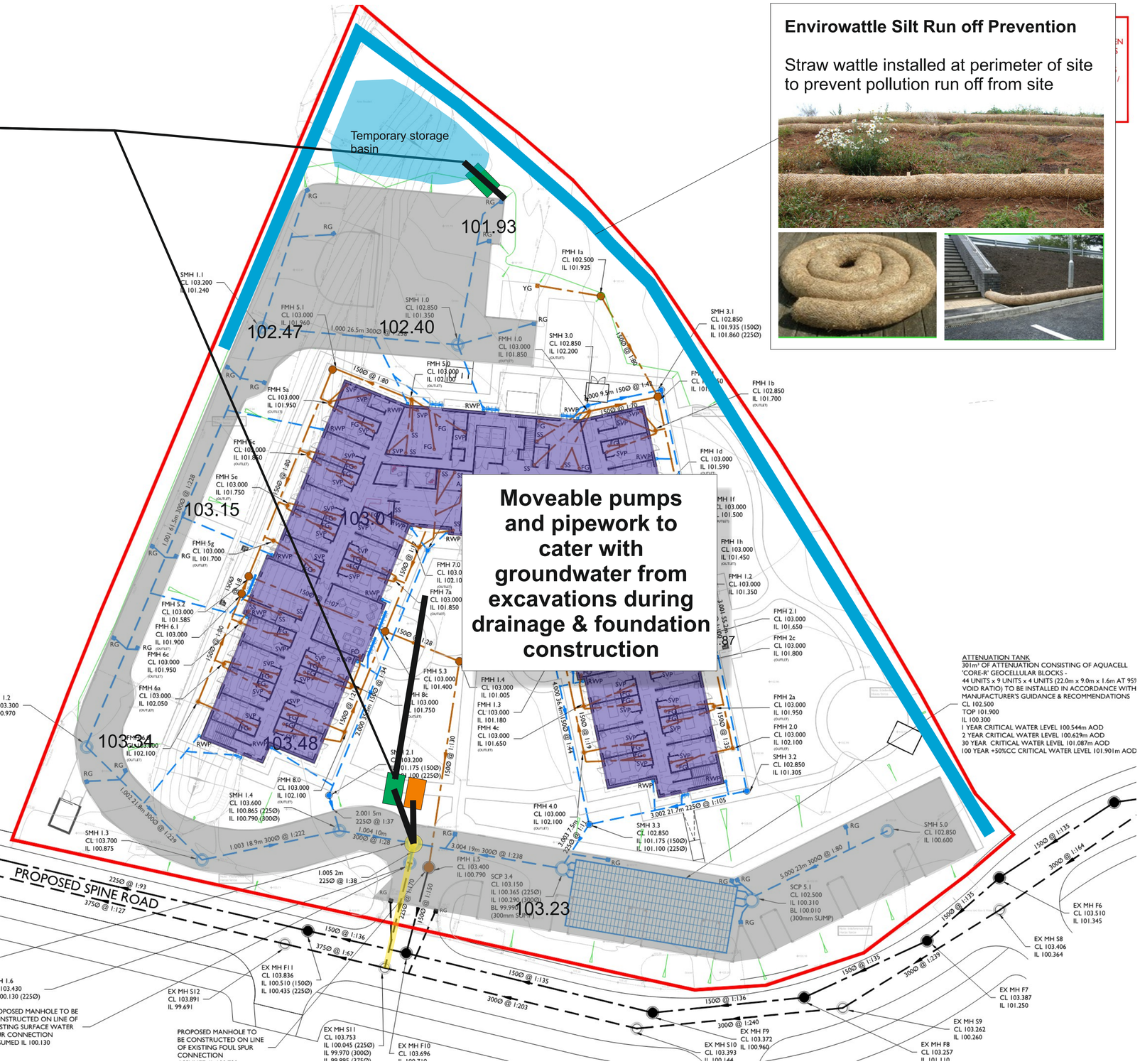
Construction Phase Water Management Plan : During Construction Works

Water settlement tank

All pumping will pass through the water settlement tank prior to entering any drains

Envirowattle Silt Run off Prevention

Straw wattle installed at perimeter of site to prevent pollution run off from site



INDICATIVE LAYOUT

Legend

- Overland Flow
- Envirowattle silt protection
- Filtration unit with pump
- New manhole connected to existing surface water drain (proposed connection agreed with FRA)
- Water Pumped from Temporary bund into new surface water manhole
- Temporary storage basin
- Concrete wash down area

CN220018 Clitheroe
CSWMP.Rev1
27.02.2024
Not to scale

Eric Wright Construction Ltd
Sceptre House . Sceptre Way
Bamber Bridge . Preston PR5 6AW
Tel: 01772 698822
Fax: 01772 628811
www.ericwright.co.uk

Care Home, Standen, Clitheroe

Construction Phase Water Management Plan : Completed Project

Legend

- Overland Flow
- Envirowattle silt protection
- Filtration unit with pump
- New manhole connected to existing surface water drain (proposed c onnection agreed with FRA)
- Water Pumped from Temporary bund into new surface water manhole
- Temporary storage basin
- Concrete wash down area

CN220018 Clitheroe
CSWMP.Rev1
27.02.2024
Not to scale