



Developer Day Wastewater Update

Building a greener future for the North West

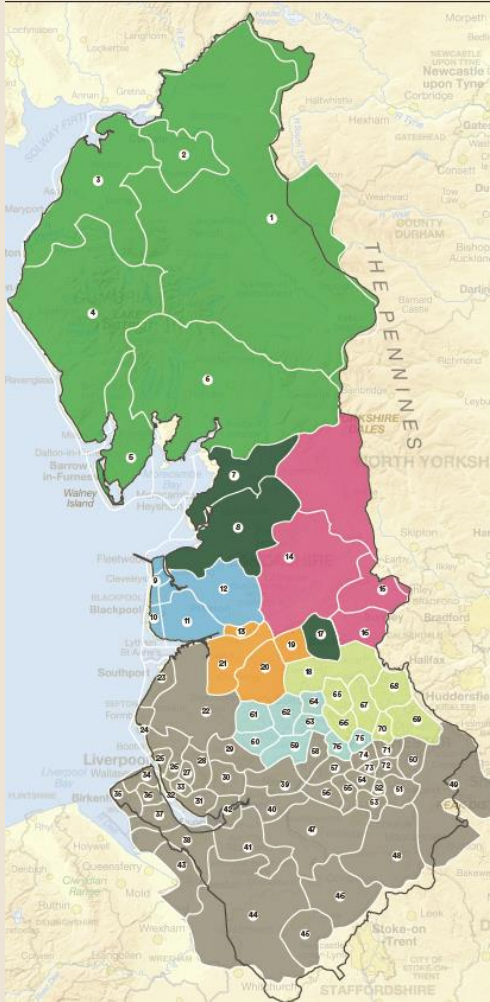
Team Update



Join in the conversation – head to www.slido.com and enter the code [Wastewater1](#)

Team changes

North team



Tom Bethell

Jo Wong

Alistair
Graham

Gulshan
Seetulparsad

Mohammed
Alfadarawi

Ben Scott

Tim Hunt

South team



Graham
Perry

Nicola
Pilkington

Sue Walsh

Mike
Duckworth

Cliff Erasmus

Conor Henry

Shoaib
Tauqeer

WW Developer Services Inspectors



Mohammed Younas

Terry Kennedy

Chris Bell

Neil O'Connor

Karen Boyle

Will Harrison

Paul Cunningham

Andrew Fisher

Tony Selby

Marcus Jones

Stephen Searle

Wes Odell

Keira Owen

James Darlington

Andrew Howarth

Making it easier for you to get in touch...

It's now easier to get in touch with the right person to talk about your application or development...

**Wastewater Team
(Pre Dev + S185 S104
Enquiries)
0345 026 8989
(Option 4)**



0345 026 8989

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Your feedback

We'll be asking for more feedback via Sli.do to inform our improvements to the above so far and any further improvements you could suggest so please be as open and honest as possible with your answers.

What do you feel that United Utilities did well, if anything, in relation to this particular transaction?

Really good response time.

A couple of days before I got a response back and it was a detailed response as well.

I think the application was quick and easy.

The form I filled out was easy to follow and answer, and to get done quickly. The response time was fair as well, it was in line with how the project was moving forwards, and we didn't have to wait for their response.

They were clear and precise.

They helped with the application before submission and then helped us make the submission. They also asked us to provide more information.



What do you feel that they could have done better, if anything - again in relation to this particular transaction?

Communication about the application.

The form that I sent off, kind of what stage they are at, so an update on when there might be a response.

Ease of communication.

Direct contact number for someone to speak to

The only thing's the payment side.

It can be quite tricky paying by BACS. It would be better by card.

One thing the Developer Services team at United Utilities could do that would have made it better?

Option of a video conference call, One Point of Contact.

Just an **increase in communication** about the application: just perhaps giving regular updates on the progress of the application.

Include sewer maps. Graphical tie in to where they're suggesting I go.

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Join in the conversation with Slido

1. On a scale of 1-10 how easy is it to speak to the person you need to about any stage of your development.

1 = There are no ways to get in touch/I get no response

10 = Easy I can get in touch how and when I need to

2. Name one thing you'd change about our service offering...

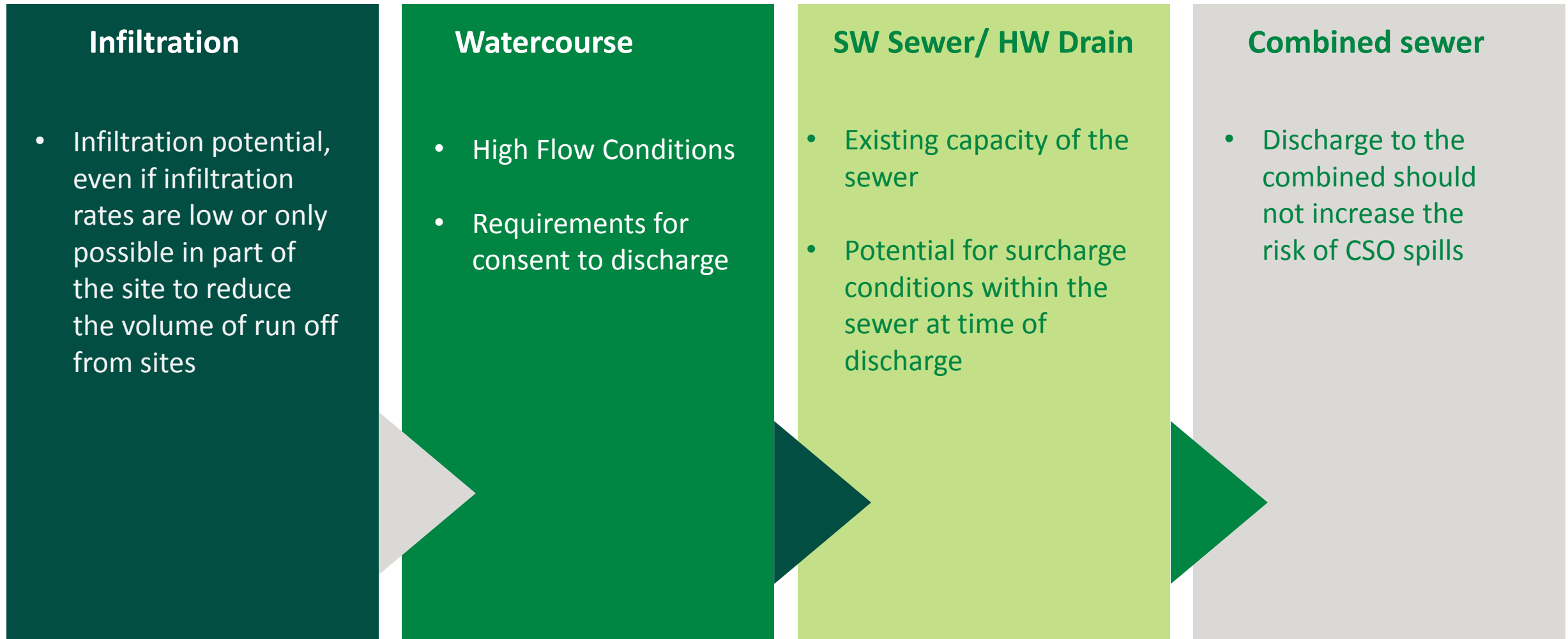


Surface Water Hierarchy

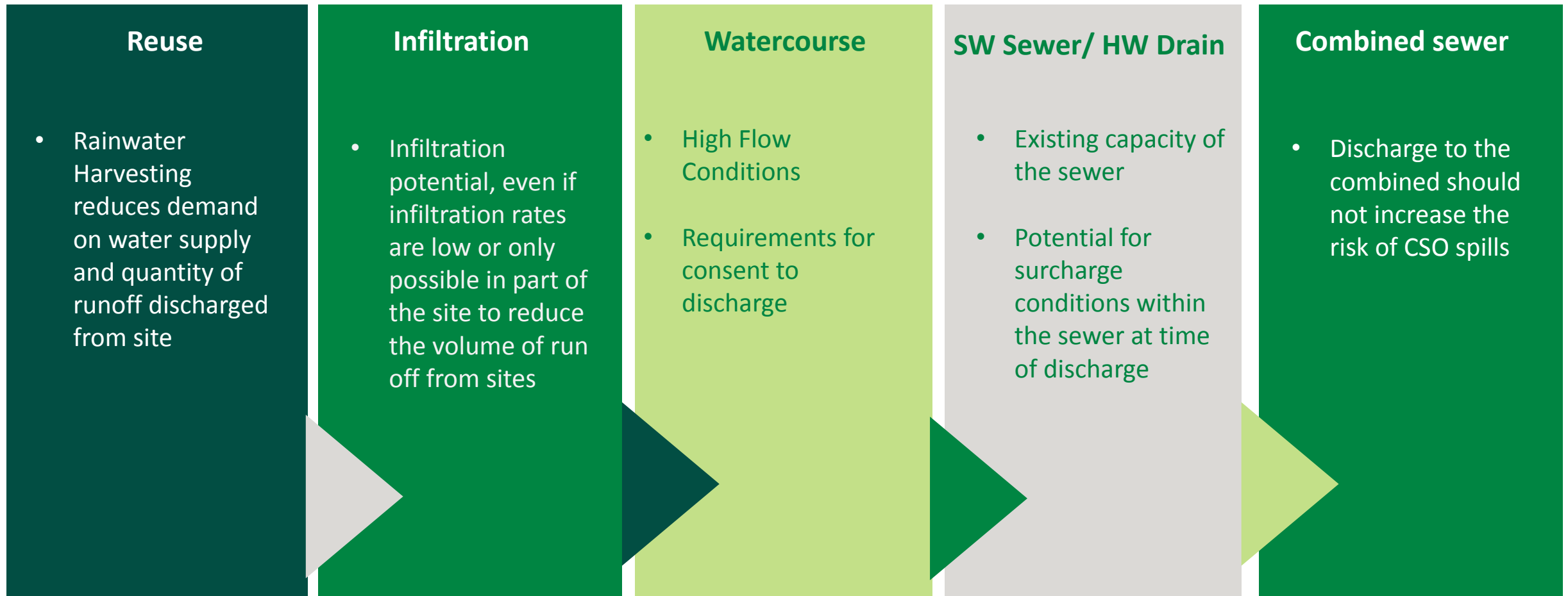


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Surface water hierarchy



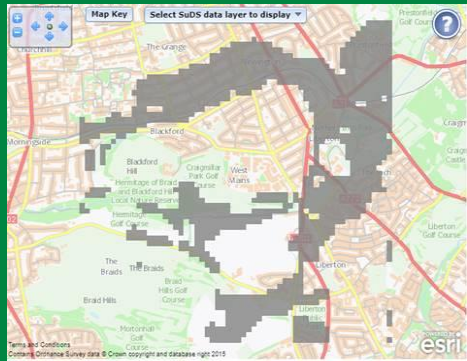
Surface water hierarchy



Please take a moment to answer the question on **slido** relating to Reuse

Infiltrating surface water to ground

What evidence are we looking for?



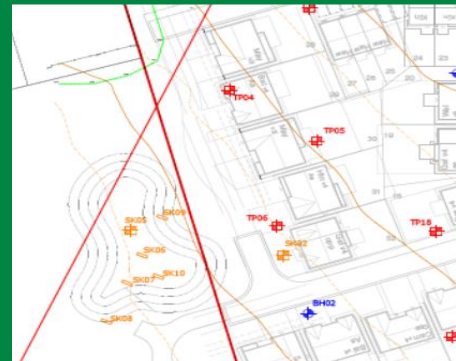
Scope of Works
 IDG were commissioned to conduct SK07 at approximate depths of 1.0m to 2.15m. A plan showing the locations of the tests is shown in Appendix A.

Ground Conditions
 Detailed descriptions of the ground conditions at each test location, as summarised below.

Results
 A summary of the results is presented in the following table:

Summary of Soakaway Tests

Test Pit	Infiltration Zone Depth	Infiltration Rate	Coefficient of Infiltration
SK06-1	0.48m – 1.15m	-	25
SK07-1	0.57m – 1.50m	-	25
SK08-1	0.90m – 2.15m	$2.83 \times 10^{-5} \text{ m/s}$	
SK08-2	0.89m – 2.15m	$1.87 \times 10^{-5} \text{ m/s}$	
SK08-3	0.77m – 2.35m	$2.21 \times 10^{-5} \text{ m/s}$	
SK09-1	1.31m – 2.50m	$2.02 \times 10^{-4} \text{ m/s}$	
SK09-2	1.28m – 2.50m	$1.66 \times 10^{-4} \text{ m/s}$	
SK09-3	1.34m – 2.50m	$7.12 \times 10^{-5} \text{ m/s}$	
SK10-1	1.13m – 2.30m	$8.80 \times 10^{-5} \text{ m/s}$	
SK10-2	1.10m – 2.35m	$5.94 \times 10^{-5} \text{ m/s}$	
SK10-3	1.05m – 2.35m	$5.21 \times 10^{-5} \text{ m/s}$	



GL (mAOD): 58.60		N Coord: 554108.7	
Method: Tracked Excavator		Logged By: BRB	
Level	Legend	Depth (m)	Description
58.20	[Hatched pattern]	0.40	Dark brown slightly gravelly SAND. Sand is fine to medium. Gravel is fine to coarse.
57.60	[Dotted pattern]	1.00	Red-brown slightly cobbly gravelly SAND. Gravel is rounded to subangular. Sandstone and quartzite. Angular of tabular laminated subangular sandstone.
57.45		1.15	End Of Trial Pit At 1.15 m

Desktop research- BGS survey historic logs and geological mapping / infiltration SuDS map available online

Report describing work carried out and ground conditions

Results for infiltration tests and each calculation as per BRE365

Plan indicating positions of tests relative to size of the development

TP and BH logs and or photos of a square/rectangular pit.



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Can't infiltrate, what are the next options to explore?



Waterbody

If **waterbody is not within your ownership**, please provide us with evidence of your correspondence / land registry searches with any landowners with your pre-development enquiry. **The Lead Local Flood Authority (LLFA) will determine discharge rate from the site.**



Highway drain

A highway drainage system may have an effective outfall to a water body. Discuss this with the LLFA & Highway Authority.



Surface water sewer

Whilst **we can provide** you with an **indicative rate to discharge**, the **LLFA will confirm** this as they will want to assess the impact on the receiving watercourse.



Combined sewer

The least sustainable option, this should only be considered if all other options have been exhausted.

UU will consider a surface water pumping station which can be more sustainable than surface water gravity connections discharging to the combined sewer.

Agreeing surface water discharge rates

UU approach to developments on Greenfield and Brownfield sites

Greenfield site definition:

“Any site undeveloped and or with no existing connections to a public sewer”. (SuDS Proforma)



- Fixed Qbar greenfield discharge rates to public sewers.
- Flows must be estimated from the developable area only.
- UU do not accept connections for land drainage / water courses into the public sewer network.
- Discharges < 5l/s, must be DCG compliant if put forward for adoption.

Agreeing surface water discharge rates

UU approach to developments on Greenfield and Brownfield sites

If no evidence of prior connection,

- Fixed Qbar greenfield rates will apply to public sewers.

Evidence provided:

- Contributing area plan / sewer survey.
- Local Authorities require 30% to 50% betterment.
- We advise on fixed rate of discharge based on model results /drainage evidence /highway drainage contribution / flood risk.
- LLFA may insist on greenfield rates even if prior connectivity to public sewer.

Brownfield site definition:

“A site previously developed, using existing drainage system on site for surface water management”. (SuDS Proforma)



What's happening on our sites?

An update from our field team...

Common issues we're seeing holding up sites at the moment are:

Brickwork/ raising piece construction

Wrong type of mortar, excessive mortar beds or none existent mortar beds



Infiltration

Can cause big issues on foul systems if receiving network is already challenged



Step rungs missing



Excessive debris on benching (unable to inspect) or causing blockages

