

Robinson, Jane

From: [REDACTED]@aecom.com>
Sent: 06 August 2024 13:50
To: Robinson, Jane
Subject: FW: Staines Telephone Exchange/Ashford Community Centre/Thameside Arts Centre

Caution: This is an external email and may be malicious. Please take care when clicking links or opening attachments.

Hi Jane,

Please see below from the EA re. the legend information.

[REDACTED]

Kind regards,

[REDACTED]

From: [REDACTED]@environment-agency.gov.uk>
Sent: Tuesday, August 6, 2024 1:30 PM
To: [REDACTED]@aecom.com>
Subject: Staines Telephone Exchange/Ashford Community Centre/Thameside Arts Centre

Hi [REDACTED],

Thank you for your email.

We have checked our data, and we agree that there was an issue with how the hazard information was classified. We are now looking to address this issue.

As you have stated in your email your maps are using the latest modelling and are following the FD2320 guidance, so the maps do not require amendment.

We apologise for this error but wish to thank you for bringing this matter to our attention.

Kind Regards

[REDACTED]

Environment Agency | Thames

From: [REDACTED]@aecom.com>
Sent: Wednesday, July 3, 2024 5:30 PM
To: Robinson, Jane <[REDACTED]>; [REDACTED]@environment-agency.gov.uk>

[REDACTED]
Subject: RE: Staines Telephone Exchange/Ashford Community Centre/Thameside Arts Centre

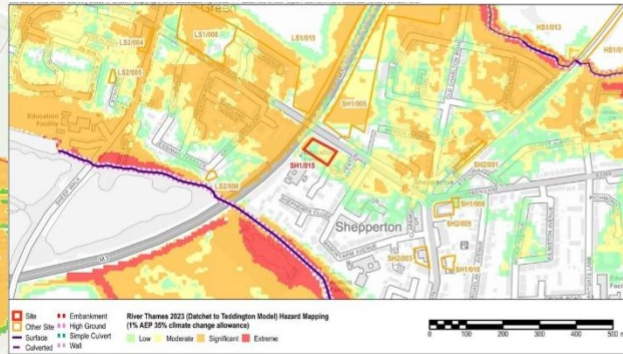
Hi [REDACTED],

Further to the below email from Jane, I have double checked the data and can confirm we are using the latest data supplied by the EA from this link (<https://ea.sharefile.com/share/view/s96b058c67a51487dad1b3c7aa54802b5>).

However, it looks that a different colour palette is being applied in our data (Screenshot 2) and the comparative map (Screenshot 1) included in your letter (21 June).



Screenshot 1



Screenshot 2

The SFRA Level 1 and Level 2 are using the following colour palette in line with the FD2320/TR2 and associated explanatory note

https://assets.publishing.service.gov.uk/media/602d04a98fa8f5037d371a08/FLOOD_HAZARD_RATINGS_AND_THRESHOLDS_explanatory_note.pdf .

- 2.2.12 Flood 'hazard' categorises the danger to people for different combinations of flood water depth and velocity. The derivation of these categories is based on the methodology set out by Defra in Flood Risks Assessment Guidance for New Development FD2320/TR2¹⁰ using the following equation:

$$\text{Flood Hazard Rating} = ((v+0.5)*D) + DF \quad \text{Where } v = \text{velocity (m/s), } D = \text{depth (m), } DF = \text{debris factor}$$

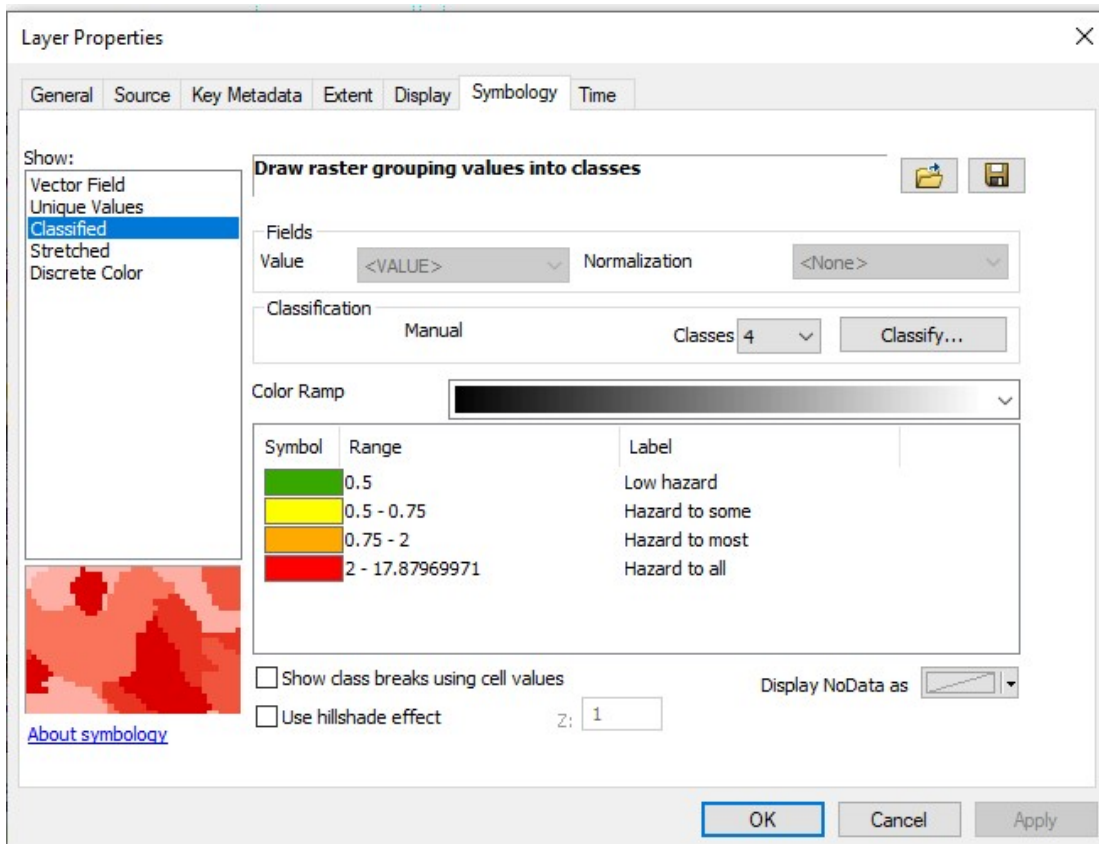
Flood Hazard	Description
Low HR < 0.75	Caution – Flood zone with shallow flowing water or deep standing water
Moderate 0.75 ≥ HR ≤ 1.25	Dangerous for some (i.e. children) – Danger: flood zone with deep or fast flowing water
Significant 1.25 > HR ≤ 2.0	Dangerous for most people – Danger: flood zone with deep fast flowing water
Extreme HR > 2.0	Dangerous for all – Extreme danger: flood zone with deep fast flowing water

This table is recommended for development planning and control use.

Table 4 – Hazard to People Classification using Hazard Rating ($HR = d \times (v + 0.5) + DF$) for (Source Table 13.1 of FD2320/TR2 - Extended version)

HR	Depth of flooding - d (m)												
	DF = 0.5				DF = 1								
Velocity v (m/s)	0.05	0.10	0.20	0.25	0.30	0.40	0.50	0.60	0.80	1.00	1.50	2.00	2.50
0.0	0.03+0.5 = 0.53	0.05+0.5 = 0.55	0.10+0.5 = 0.60	0.13+0.5 = 0.63	0.15+1.0 = 1.15	0.20+1.0 = 1.20	0.25+1.0 = 1.25	0.30+1.0 = 1.30	0.40+1.0 = 1.40	0.50+1.0 = 1.50	0.75+1.0 = 1.75	1.00+1.0 = 2.00	1.25+1.0 = 2.25
0.1	0.03+0.5 = 0.53	0.06+0.5 = 0.56	0.12+0.5 = 0.62	0.15+0.5 = 0.65	0.18+1.0 = 1.18	0.24+1.0 = 1.24	0.30+1.0 = 1.30	0.36+1.0 = 1.36	0.48+1.0 = 1.48	0.60+1.0 = 1.60	0.90+1.0 = 1.90	1.20+1.0 = 2.20	1.50+1.0 = 2.55
0.3	0.04+0.5 = 0.54	0.08+0.5 = 0.58	0.15+0.5 = 0.65	0.19+0.5 = 0.69	0.23+1.0 = 1.23	0.30+1.0 = 1.30	0.38+1.0 = 1.38	0.45+1.0 = 1.45	0.60+1.0 = 1.60	0.75+1.0 = 1.75	1.13+1.0 = 2.13	1.50+1.0 = 2.50	1.88+1.0 = 2.88
0.5	0.05+0.5 = 0.55	0.10+0.5 = 0.60	0.20+0.5 = 0.70	0.25+0.5 = 0.75	0.30+1.0 = 1.30	0.40+1.0 = 1.40	0.50+1.0 = 1.50	0.60+1.0 = 1.60	0.80+1.0 = 1.80	1.00+1.0 = 2.00	1.50+1.0 = 2.50	2.00+1.0 = 3.00	2.50+1.0 = 3.50
1.0	0.08+0.5 = 0.58	0.15+0.5 = 0.65	0.30+0.5 = 0.80	0.38+0.5 = 0.88	0.45+1.0 = 1.45	0.60+1.0 = 1.60	0.75+1.0 = 1.75	0.90+1.0 = 1.90	1.20+1.0 = 2.20	1.50+1.0 = 2.50	2.25+1.0 = 3.25	3.00+1.0 = 4.00	3.75+1.0 = 4.75
1.5	0.10+0.5 = 0.60	0.20+0.5 = 0.70	0.40+0.5 = 0.90	0.50+0.5 = 1.00	0.60+1.0 = 1.60	0.80+1.0 = 1.80	1.00+1.0 = 2.00	1.20+1.0 = 2.20	1.60+1.0 = 2.60	2.00+1.0 = 3.00	3.00+1.0 = 4.00	4.00+1.0 = 5.00	5.00+1.0 = 6.00
2.0	0.13+0.5 = 0.63	0.25+0.5 = 0.75	0.50+0.5 = 1.00	0.63+0.5 = 1.13	0.75+1.0 = 1.75	1.00+1.0 = 2.00	1.25+1.0 = 2.25	1.50+1.0 = 2.50	2.00+1.0 = 3.00	3.50	4.75	6.00	7.25
2.5	0.15+0.5 = 0.65	0.30+0.5 = 0.80	0.60+0.5 = 1.10	0.75+0.5 = 1.25	0.90+1.0 = 1.90	1.20+1.0 = 2.20	1.50+1.0 = 2.50	1.80+1.0 = 2.80	3.40	4.00	5.50	7.00	8.50
3.0	0.18+0.5 = 0.68	0.35+0.5 = 0.85	0.70+0.5 = 1.20	0.88+0.5 = 1.38	1.05+1.0 = 2.05	1.40+1.0 = 2.40	1.75+1.0 = 2.75	3.10	3.80	4.50	6.25	8.00	9.75
3.5	0.20+0.5 = 0.70	0.40+0.5 = 0.90	0.80+0.5 = 1.30	1.00+0.5 = 1.50	1.20+1.0 = 2.20	1.60+1.0 = 2.60	3.00	3.40	4.20	5.00	7.00	9.00	11.00
4.0	0.23+0.5 = 0.73	0.45+0.5 = 0.95	0.90+0.5 = 1.40	1.13+0.5 = 1.63	1.35+1.0 = 2.35	1.80+1.0 = 2.80	3.25	3.70	4.60	5.50	7.75	10.00	12.25
4.5	0.25+0.5 = 0.75	0.50+0.5 = 1.00	1.00+0.5 = 1.50	1.25+0.5 = 1.75	1.50+1.0 = 2.50	2.00+1.0 = 3.00	3.50	4.00	5.00	6.00	8.50	11.00	13.50
5.0	0.28+0.5 = 0.78	0.60+0.5 = 1.10	1.10+0.5 = 1.60	1.38+0.5 = 1.88	1.65+1.0 = 2.65	3.20	3.75	4.30	5.40	6.50	9.25	12.00	14.75
Flood Hazard Rating (HR)	Colour Code	Hazard to People Classification											
Less than 0.75		Very low hazard - Caution											
0.75 to 1.25		Danger for some – includes children, the elderly and the infirm											
1.25 to 2.0		Danger for most – includes the general public											
More than 2.0		Danger for all – includes the emergency services											

The data shown in your comparative map in the letter is using the below colour range, which is why the designations are coming out as higher hazard ratings, and therefore the conclusions for some of the sites are different.



Please can you confirm we are OK to leave the mapping in the SFRA as it is, as this is in line with the FD2320 and guidance?

We look forward to hearing from you.

Kind regards,

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