Christopher Harrison

Subject:	FW: Application Number 4/21/2416/DOC at KEEKLE MEADOWS, CLEATOR MOOR
Attachments:	Response_4-21-2416-DOC.pdf; Letter response HFT Gough.pdf; 100yr combined discharge.pdf; Old development inc 30 percent.pdf; New development inc 50 percent.pdf

From: Glen Beattie < >
Sent: 09 March 2022 13:00
To: Nick Hayhurst <>; Christopher Harrison <>
Cc: Gary Reed <>; Michael Sandelands <>
Subject: RE: Application Number 4/21/2416/DOC at KEEKLE MEADOWS, CLEATOR MOOR

Hi Nick,

I am now in a position to respond to the latest comments from the HA/ LLFA (letter re-attached for ease of reference). You mentioned when we spoke on Monday that you had passed the baton to Chris on this application so I have copied him in.

Highway comments.
Please find attached a letter from Michael Sandelands at H.F.T. Gough & Co. addressing this matter.

LLFA comments.
Our drainage engineer has responded with the comments in red italics below. His latest comments are supported by the last three pdf attachments to this email entitled *'100yr combined discharge', 'Old development inc 30 percent'* and *New development inc 50 percent'.*

'We have broken down the old and new developments. An analysis for the old development with 30% additional flow (climate change) and a separate analysis for the new development with 50% additional flow (40% climate change + 10% urban creep). The use of a base 10% urban creep gives an amplified discharge figure as this should only relate to roofs and drives, as a constant it also increases the carriageway runoff by 10% which is highly unlikely.

The attached breakdown shows the maximum combined discharge from the old and new developments is 90.6 l/s, when the approved discharge rate to the river is 94 l/s. We have fully utilised the basin volume keeping the maximum depth to 1m.

We trust this is sufficient to discharge the relevant condition.'

Look forward to hearing from you.

Regards,
Glen