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Dear Daniel,

The Main Drain you propose to drain into is below sea level. From this site, water flows down to the Board’s Queenholme Pumping Station. Here, water is pumped up 3 - 4 metres (depending on the time of year) to the Environment Agency’s Main River System.

The Pumping Station has a limit capacity and when installed, the design flow was 1.1l/s/ha. Hence, it is the policy of the Board to limit any new surface water connection into the Board’s system.

Any new connection into the District requires the prior consent of the Board. Given the scale of the development, this would be in the form of a legal agreement with the Board. This protects the District from future development. The agreement would need to be in place before works start onsite. I would like to point out that this is separate to the planning process and that the granting of planning permission does not guarantee the consent of the Board.

Best Regards,

Andrew Newton
Engineer

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From: Daniel Alstead [mailto:daniel.alstead@enzygo.com]
Sent: 04 August 2016 09:21
To: jean@elydrainageboards.co.uk
Cc: Matt Travis <matt.travis@enzygo.com>; Neil Lewis <N.Lewis@gladman.co.uk>
Subject: Land off Rampton Road, Cottenham - Discharge Rate Enquiry

FAO: Andrew Newton

Enzygo Ltd produced a Flood Risk Assessment (FRA) (Document Ref. 1132.024.HY.R.001.F – Land West of Rampton Road, Cottenham, dated September 2015), in accordance with the National Planning Policy Framework (NPPF) and Planning Policy Guidance (PPG ID: 7), for an application appropriate for the development of up to 200 residential dwellings, located on land (14.16 Ha) of Rampton Road, Cottenham (the Site). The FRA includes an assessment of the surface water drainage requirements of the Site.

Following submission of the FRA report, we received the attached objection letter regarding surface water runoff rates (Ref. AN/tlr, dated 28th June 2016). In your letter you raised an objection, until the FRA report was revised using the Board’s greenfield runoff rate of 1.1 l/s/ha. Please can you clarify how this flat rate has been calculated?

The discharge rate within the FRA (QBAR – 19 l/s for the 14.16 Ha Site) is based on a calculated greenfield runoff rate (see table below). The greenfield runoff rate was calculated using Interim Code of Practice for SUDS. The recommended methodology for Sites up to 50 hectares in area is the ICP SUDS method.

The following parameters have been incorporated into the runoff calculations:

- Catchment Area: 14.16 Ha
- Average Annual Rainfall (SAAR): 540 mm/year;
- Soil: 0.300
• Impermeable Areas = 0% (0.00 Ha)
• Region No.: 5

<table>
<thead>
<tr>
<th>Annual Probability (Return Period, years)</th>
<th>Greenfield Runoff (l/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QBAR (2.3)</td>
<td>19.0</td>
</tr>
<tr>
<td>50% (2)</td>
<td>17.0</td>
</tr>
<tr>
<td>3.33% (30)</td>
<td>45.8</td>
</tr>
<tr>
<td>1% (100)</td>
<td>67.8</td>
</tr>
<tr>
<td>1% + Climate Change</td>
<td>94.9</td>
</tr>
</tbody>
</table>

We argue that the calculated QBAR rate is based on catchment descriptors specific to the site, and is representative of the current discharge rate. Please can you provide a response clarifying why the flat rate should supersede the calculated rate?

Best Regards

Daniel Alstead  BSc (Hons), MSc, MCIWEM, C.WEM
Principal Hydrologist

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