



From: Andy French [REDACTED]
Sent: 14 May 2026 17:09
To: Paul Cann <Paul.Cann@arun.gov.uk>
Cc: Joe Dixon <Joe.Dixon@arun.gov.uk>; Kathryn Welch <Kathryn.Welch@arun.gov.uk>
Subject: RE: Response to A-30-26-PL - Highdown Garden Centre 2 - v2 080526

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Hi Paul

I set out comments below in **RED** in email form, let me know if you need the Consultation Response updated. Let me know if you have any feedback before issuing to the applicant.

0. General

- 0.1. We have reviewed the additional information and comments submitted 30 March.
- 0.2. We note the LLFA objection dated 31 March.
- 0.3. There are changes to onsite drainage and new drained roof areas which affect drainage on and around the site and therefore requires sustainable drainage in accordance with Para 182 NPPF. This does not only apply to major development.
- 0.4. The Drainage Strategy email dated 30 March does not meet ADC guidance, further comments in the subheadings below. The Drainage Layout (A9803 - 140 P0) which contains some information but does not meet our standards for presentation and assessment of sustainable drainage. A Drainage statement should be submitted following guidance on ADC webpages - <https://www.arun.gov.uk/surfacewater>.

Given that the site is capped with impermeable clay to a considerable depth and has underlying structureless chalk all as evidenced in the borehole we anticipated that confirmation and evidence of the same would be more than sufficient to establish that infiltration is not viable or indeed appropriate. It would seem unfair for the client to pay for a full a drainage design strategy to be produced by an engineer when the site is clearly unsuitable on geology alone.

No Drainage Statement has been submitted which provides an appraisal of the local hydrogeology. The drainage strategy email dated 30 March states there is a 4.6m clay cap but no evidence was provided in support. We were awaiting an evidenced desktop appraisal to support the selection of a piped discharge over the higher priority of discharge to ground.

Typically intrusive ground investigation is required to confirm whether infiltration or a partial infiltration solution is possible. This may not be necessary if the available evidence from desk study is compelling.

0.5. The area within the site boundary is not at significant risk of flooding from external sources and a Flood Risk Assessment should not be required.

We acknowledge and agree that a FRA is not required.

Noted.

0.6. However, it should be noted that Hangleton Lane suffers significant flooding due to inadequacies in the watercourse network and overland flows onto the road. We are currently working with WSCC Highways on a potential scheme to help alleviate the flooding.

Our client has an outflow point to Hangleton Lane and the current site discharges to this point as your records and you note that there is any existing problem on the Lane. Our Scheme will mitigate 1100m² plus of rainfall which would become attenuated therefore reducing the existing flow off site. This is clearly a significant betterment and will undoubtedly help with your existing flooding problem.

Our client is very much a member of the community and would always want to be a good neighbour hence want to improve their site and reducing the impact to the community.

Noted.

There may be offsite works required to be undertaken by the Applicant to watercourses within their land ownership. This can be dealt with via a planning condition once the onsite design is acceptable.

The outfall discharges to the ditch and watercourse owned by ADC.

This should be clarified on the submission plans, the drainage layout currently does not show the site boundary.

1. Runoff destination

1.1. The proposed drainage layout shows a piped restricted outlet to the existing drainage system at the site. The downstream outfall is unclear but there is a piped ordinary watercourse shown on our records in the location.

The piped outfall position and size is shown on the drainage drawing provided. Please advise what further information you require, it is the end of a pipe. We can take a picture from Hangleton Lane if required. Given your existing involvement with WSCC we would imagine you have significant information on the arrangement of all drainage discharge along Hangleton Lane which is maintained by ADC.

Typically a planning stage drainage design would identify the outfall and receiving body beyond the end of the pipe. Hangleton Lane is a public highway maintained by WSCC, The watercourse sections are not owned or maintained by ADC. We do have GIS data on the watercourse which indicates connectivity to an ordinary watercourse. There are riparian ownerships and it is not clear from the submission whether the outfall is within the site. This is a key aspect we check at planning stage.

- 1.2. There will be a significant irrigation demand at the site and collection of rainwater for reuse is a higher priority than discharge to piped surface water drainage system. Rainwater harvesting should be incorporated into the design in accordance with NSfS Standard 1.

We have already provided a detailed explanation of why rainwater harvesting is an impractical solution on a garden centre development. The solution has been fully considered and reviewed by all the design parties who have decades of experience in the garden centre industry. Copy below for your ease of reference.

While we acknowledge a preference for rainwater harvesting within SuDS criteria, we believe a straightforward attenuation system is the most robust and responsible solution for this specific site for the following reasons:

1. Mitigation of Primary Risk

Our primary planning priority is to ensure the safety of the development and the surrounding community. A dedicated 48m³ attenuation tank provides a guaranteed, empty void space designed specifically to capture and slowly release peak storm-water volumes. In contrast, harvesting tanks are designed to remain full to provide a water supply; if a major storm event occurs while a harvesting tank is already at capacity, its functional benefit for flood prevention is effectively zero.

2. Supply and Demand Mismatch in Horticulture

As a garden centre, our peak water demand occurs during prolonged dry periods when rainfall is reduced or non-existent. Conversely, during the heavy rainfall events that trigger flood risks, irrigation demand is at its lowest. A harvesting system would therefore fail to provide water when it is most needed (drought) and fail to provide storage when it is most critical (flood). To be effective as irrigation tanks they must be connected to main water top ups and that ensures they are of absolutely no use when required for events.

3. Existing Site Constraints

The application area is already entirely hard-paved and serviced by an existing drainage network. Introducing a high-capacity attenuation tank offers a significant betterment over the existing situation. Fitting complex harvesting filtration and internal plumbing would be disproportionately complex without offering any additional flood-risk benefit.

4. Technical Reliability and Maintenance

To ensure the long-term effectiveness of the SuDS strategy, we have opted for a simplified attenuation system. This approach ensures a "fail-safe" discharge rate to the local network in perpetuity which is the key factor.

While we acknowledge the SuDS Hierarchy as outlined in the National Standards, we submit that a mandatory RWH system is technically disproportionate and unreasonable for this specific scheme for the following reasons:

5. Redundancy and Double-Handling

The site's flood risk profile necessitates a significant attenuation volume of 48m³. Under current design, attenuation crates provide 100% of the required storage for a 1-in-100-year event (plus climate change). Implementing a standalone RWH system would not reduce this 48m³ requirement and could work against the drainage scheme particularly if mains water tops get discharged down the drainage system, which would be very wasteful.

6. Demand vs. Storage Mismatch

Rainwater harvesting is only effective if there is a consistent, year-round demand for non-potable water. As a garden centre, our water demand is highly seasonal. During the winter months—when rainfall is highest and the 48m³ attenuation capacity is most critical—water demand for irrigation is at its lowest. A full RWH tank during a winter storm provides zero attenuation benefit, meaning the crates must still do 100% of the work.

7. Conflict with Amenity and Health & Safety

The primary "consumer" of harvested water in this setting is plant stock. Re-using untreated runoff for commercial irrigation carries risks regarding water-borne pathogens (such as Legionella or Phytophthora). The filtration treatment and potential chemical treatment required to make this water safe for public-facing commercial use imposes an unreasonable operational burden that outweighs the marginal environmental benefit.

8. Proportionality and Deliverability

Paragraph 170 of the NPPF requires that planning conditions be "reasonable" and "proportionate." Forcing the installation of a secondary, high-maintenance system alongside a fully compliant 48m³ attenuation crate system—which already manages runoff rates to greenfield levels—places an undue financial burden on the development without a meaningful increase in flood resilience. Please bear in mind this is outside canopy in an existing sales area; there is only improvement here.

Conclusion

The proposed 48m³ attenuation tank prioritizes the "Control of Water Quantity" as the most critical aspect of any surface water scheme. We note a priority for re-use where practical, but this is not the case on this site as noted above. We believe this represents the most effective proportionate engineering solution to protect the site and the downstream catchment which is also balanced to the addition of less than 500m² of canopy to an existing hard paved surface area. The addition is about improving the customer experience and the appearance of the site which has become run down under the previous owners and which is widely supported by customers, parish council, and other consultees.

This is new information not previously consulted. Water reuse is the highest priority in runoff destination as set out by NSfS Standard 1. This may be separate and in addition to attenuation for storm water. The reuse of rainwater for irrigation / horticulture is commonplace and should not be disregarded due to inherent challenges. The argument of summer irrigation demand not being provided for by summer rainfall is overly simplistic. A realistic appraisal of usable demand and proportionate storage in terms of daily irrigation and available collection capacity should be provided. There is likely to be an appropriate, safe and useable volume of rainwater reuse which is likely to be more than zero.

- 1.3. The submission does not currently provide evidence of the ground conditions described in the drainage strategy email. Infiltration to ground is a higher priority than discharge to discharge to piped surface water drainage system. Evidence should be provided that infiltration to ground would not be suitable based upon either low infiltration rates or high groundwater. This may be based upon reliable local geology information and/or information in the public domain on adjacent sites, or new ground investigation.

We are totally confused by this comment we have provided the borehole log for the site which provides the clear geology evidence you suggest as a suitable source and explained the situation and strategy previously; however, we will elaborate further below.

So, we have impermeable clay to a significant depth.

The site investigation reveals a significant layer of approximately 4.5m of impermeable clay overlying the structureless chalk. Under the National Planning Policy Framework (NPPF) and Building Regulations Part H, infiltration is only deemed viable where the ground has sufficient permeability.

Technical Unfeasibility: A 4.5m thick layer of clay is, by definition, non-permeable. This thickness prevents standard shallow soakaways from functioning, as the water cannot dissipate into the soil.

Increased Instability Risk: To bypass this clay, a developer would be forced to use "deep-bore" or "pile" soakaways to reach the chalk. Injecting concentrated runoff from the development directly into the chalk interface beneath 4.5m of clay is a high-risk engineering practice. It creates a "point load" of hydraulic pressure that can trigger the collapse of the structureless chalk, leading to voids that are masked by the clay layer until a catastrophic surface collapse occurs.

The above approach would be a contradiction of Environment Agency's "Groundwater Protection: Principles and Practice" (GP3), which discourages deep infiltration where a protective low-permeability layer is present.

Then we have structureless chalk

We have structureless chalk which the NPPF and associated Planning Practice Guidance clearly state infiltration should consider safety first and a scheme should not jeopardize ground stability. NPPF Paragraph 174 & 183: The framework requires that planning decisions ensure a site is "suitable for its proposed use taking account of ground conditions and any risks from... land instability.

The [British Geological Survey \(BGS\)](#) includes **Worthing** as a priority high risk area in its National Karst Database due to the known frequency of dissolution features (sinkholes, solution pipes, and swallow holes) in the local chalk.

The presence of recorded dissolution pipes and sinkholes in the immediate vicinity indicates that the bedrock is susceptible to "flushing out" of sediment-filled fissures when subjected to concentrated water discharge.

Introducing concentrated water into structureless chalk would accelerate the natural dissolution process, risk sudden subsidence, or collapse under the proposed or neighbouring structures/roads/services.

The NPPF requires that development does not increase flood risk elsewhere. In karst environments, soakaways can fail suddenly due to the migration of fines or the blockage of fissures, leading to surface-level flooding. Reliance on infiltration in structureless chalk constitutes a failure to provide a "long-term, sustainable" drainage solution as required by national standards.

is highly prone to instability when saturated with minimum clearance distances increased to 20m plus and not even recommended in area with known for dissolution features.

Under the national engineering framework, CIRIA C574 establishes a strict minimum 20-metre rule for soakaways in areas prone to dissolution and on a small site this would be impossible without prejudicing the existing structures, new structures, existing roads, and statutory services.

Hopefully, these further comments will enable the planning to move forward without objection.

We have seen no borehole logs. Perhaps there are missing attachments or other documents which would normally be appended to a Drainage Statement. It is likely that the ground conditions are not suitable for infiltration for the reasons outlined above hence the request for an appraisal of the local geology rather than requirement to undertake physical ground investigation. The onus is on the

applicant to demonstrate with reference to evidence that infiltration should be disregarded. Although highly plausible, none of the assessment above has currently been evidenced.

- 1.4. If discharge to ground is not viable and connection to discharge to a piped surface water drainage system is required, the downstream connectivity should be evidenced.

We have provided the drainage layout for existing and new showing the outfall. We are happy to provide a photo from Hangelton Lane of the existing end of the pipe where it leaves our site.

The drainage drawing was unclear and could highlight the site boundary and the receiving watercourse. We have reviewed the GIS data held by the Council and have reasonable confidence the outfall is to the ordinary watercourse. A photo would be useful thank you.

- 1.5. The runoff destination is not currently in accordance with the requirements of the NSfS Standard 1. Therefore, we **object** to the application.

We do not agree with grounds for objection, the information has been provided, and the geology and risks are very clear for infiltration.

Subject to a desk study which demonstrates with evidence the assertions made regarding subsoil and unsuitability for infiltration, together with an appropriate level of water reuse, we would be able to remove this objection.

2. Interception drainage

- 2.1. Interception drainage is not currently incorporated into the design.

Interception has been addressed through the following mechanisms:

Source Control & Evapotranspiration: Rainwater falling on the canopy is initially intercepted by the roof surface itself which is polycarbonate. For minor rainfall events (typically the first 5mm), a significant portion is lost to evaporation directly from the canopy material and supporting structure before it enters the drainage system.

Runoff from the canopy is directed through catchpits prior to entering the attenuation tank. This process provides the necessary water quality treatment by capturing sediments etc at the source.

The attenuation system is designed not just for large-scale storage, but to ensure that low-intensity rainfall is effectively managed. By utilizing flow control device, the system ensures that discharge only occurs at controlled, effectively 'intercepting' the surge that would otherwise impact the local network.

None of the elements noted above counts towards interception drainage in terms of Standard 2 of the NSfS. Detailed guidance on interception drainage is on Arun DC webpages here:

<https://www.arun.gov.uk/interception-drainage-guidance-note>.

- 2.2. Evidence has not been provided to justify the lack of interception drainage provided as part of the sustainable drainage design. Inception drainage is not currently in accordance with the requirements of the NSfS Standard 2. Therefore, we **object** to the application.

The interception consideration is implied within the design, but we trust the above clarifies.

See comment above.

3. Extreme rainfall and flooding

- 3.1. The calculations provided are not in accordance with ADC criteria. The latest rainfall profiles are not used, CV values are low, the peak outflow is not related to greenfield runoff.
- 3.2. Guidance is provided on ADC webpages - <https://www.arun.gov.uk/surfacewater>.
- 3.3. Management of extreme rainfall is not currently in accordance with the requirements of the NSfS Standard 3. Therefore, we **object** to the application.

We have used the industry standard for small site under 50 hectares. This provides a more robust and physically realistic estimation of run-off for this structure and a plot of our size. We are awaiting technical comment from our chartered engineer, but the initial feedback (FEH) methodology is unsuitable for a development of this specific small scale and nature. When used on small site the FEH can cause many practical problems, but they are reviewing the calculations are per your query.

Flood Studies Report data is no longer industry standard for assessing extreme rainfall and is replaced by data within the Flood Estimation Handbook (current latest FEH22). Guidance from the Environment Agency and Arun DC confirms FEH data should be used for assessment of new development.

With kind regards,

Andy French BEng (Hons) IEng MICE

[Redacted signature]

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From: Paul Cann <Paul.Cann@arun.gov.uk>

Sent: 14 May 2026 09:43

To: Andy French [Redacted]

Cc: Joe Dixon <Joe.Dixon@arun.gov.uk>; Kathryn Welch <Kathryn.Welch@arun.gov.uk>

Subject: FW: Response to A-30-26-PL - Highdown Garden Centre 2 - v2 080526

Hi Andy

See email correspondence below and attached initial response to your consultation from the applicant.

Is it possible to provide a response to each of their points asap.

Many thx

Paul Cann