

## Adur Local Plan Examination

### Response to ALP025D and Update on flood mitigation and drainage discussions for New Salts Farm (19<sup>th</sup> April 2017)

1.1 This note is a further response to the Inspectors homework from Day 5 regarding continued communication between Adur, WSCC and Hyde New Homes to determine whether an acceptable flood mitigation and drainage scheme can be achieved at the site. It should be read in conjunction with our previous note dated 10<sup>th</sup> March 2017 which was provided to the Inspector, Adur and WSCC and is intended to update the Inspector on going engagement since that date with WSCC and Adur.

#### *WSCC Engagement since 10<sup>th</sup> March 2017*

- 1.2 A full response to the WSCC letter dated 28 February 2017 was provided to WSCC and Adur on the 10<sup>th</sup> March 2017 which detailed the further work carried out by Tully De'Ath in response to the queries raised by WSCC. The results of that further work were summarised within our note dated 10<sup>th</sup> March 2017.
- 1.3 A further response was received from WSCC dated 21<sup>st</sup> March 2017 (**REP-023-03**). On the 22<sup>nd</sup> March 2017 comments were also received from Adur (**ALP024**).
- 1.4 In ALP025D Adur have summarised outstanding concerns of WSCC and Adur. These are noted as: *'WSCC still have some outstanding concerns regarding the modelling report and its accuracy, and inherent problems in the design of the drainage solution'; 'Adur District Council's Engineer still has some outstanding concerns including the catchment area used in the model, the long-term integrity of the proposed estate roads and the general damp conditions of the site'*.
- 1.5 Tully De'Ath have sought to engage further with WSCC by email and telephone in order to discuss address their remaining concerns and to seek more evidence in relation to some of the queries raised in the letter dated 21<sup>st</sup> March. On the 27<sup>th</sup> and 29<sup>th</sup> March 2017, however, we were advised by WSCC that they intended to await the Inspector's decision on the status of New Salts Farm prior to engaging any further in detailed design on drainage issues (**Appendix 1**). This response was unexpected and disappointing given the progress made and that we are of the view that the outstanding concerns are capable of being resolved.

#### *Response to the Outstanding Concerns of WSCC and Adur*

1.6 Despite WSCC's position, Tully De'Ath have provided a full response to their, and Adur's, outstanding concerns in an email dated 5<sup>th</sup> April 2017 and sought to continue engagement (**Appendix 2**). The response is summarised below:

#### *Modelling Report / Catchment Area*

1.7 The modelling of the catchment area which informs the New Salts Farm drainage strategy has been sensitivity tested (at WSCC request). The modelling is based on the available information at the time in the public domain which is a reasonable and appropriate approach to take. The results show that the area to the north drains away from the site and does not contribute to the site's catchment area. It is therefore appropriate not to include this in our baseline conditions.

1.8 WSCC and Adur however have not provided us with any contradictory evidence to suggest that the modelling work carried out to date is not an accurate reflection of existing circumstances.

#### *Integrity of Estate Roads*

1.9 In regards to concerns raised about the integrity of the Estate Roads, Adur has stated that they are not convinced the design is appropriate for estate roads nevertheless accept that Hyde would maintain the estate.

1.10 In this respect, it is an unfair comparison to suggest that Hasler Estate's poor management is indicative of future management of the New Salts Farm Site. Hyde New Homes would retain an interest in the site and it is their intention, and in their interest, to establish a management company to ensure the estate and drainage strategy is maintained and managed in the long term.

1.11 This is a detailed aspect of road construction and maintenance which could appropriately be addressed by detailed policy wording and/or a condition on a planning consent.

#### *Drainage Strategy*

1.12 The drainage strategy has been influenced by our detailed knowledge of ground water levels at the site. WSCC and Adur have not provided any contradictory evidence to date to suggest that the groundwater level data which has informed the drainage strategy at the New Salts Farm site is not an accurate reflection of the site characteristics. The photograph provided by Adur does not include our site and is therefore not relevant evidence of groundwater levels at the site. With the agreement of WSCC the current drainage strategy is based on a worst case scenario, allowing for 1% AEP + Climate Change event, no infiltration and tide lock, and incorporating ground water level increases as a result of sea level rise.

1.13 Groundwater levels and infiltration rates are elements which can be designed around at detailed design stage and the final detailed design of the drainage strategy could be appropriately addressed through policy wording requiring full details of a final drainage strategy.

#### *Peer Review*

1.14 Given WSCC's unwillingness to engage further at this stage our client has commissioned a peer review of the proposed drainage strategy and flood risk assessment carried out for New Salts Farm.

1.15 The results of this peer review, carried out by Dr Stephen Garvin at BRE Centre for Resilience, are provided at **Appendix 3**. It concludes that in BRE's opinion the flood risk can be managed on site using the approaches set out by Hyde Housing Association and their consultants.

#### *Conclusion*

1.16 The level of detail which has been provided to Adur and WSCC to date is in excess of that normally required for a site allocation. Nevertheless our client has willingly engaged with both parties to seek to find a resolution and an agreed way forward.

- 1.17 We have demonstrated that there are potential technical solutions based on a worst case scenario both with and without infiltration to manage and mitigate surface and groundwater flood risk at the site. The detailed design of the exact final solution which should be incorporated should be developed as part of a detailed planning application in discussion with WSCC and Adur rather than to inform site allocation.
- 1.18 We have agreed with the Environment Agency that they have no objection in principle to the allocation of the site.
- 1.19 For the purpose of site allocation we have provided extensive evidence to demonstrate that the identified surface and groundwater flood risk at the site are capable of being overcome for the lifetime of the development without giving rise to flood risk elsewhere.
- 1.20 No contradictory evidence has been provided to us to date by WSCC or Adur to suggest otherwise.
- 1.21 Our position that flood risk can be managed on site is supported by a peer review from BRE.
- 1.22 It is unfortunate that we have been unable to agree a solution with WSCC and Adur, however we submit that the above demonstrates that our client has provided as much evidence as is practicable, without having to prepare a full detailed planning application, to satisfy these parties that there is a technical solution to overcome flood risk constraints at the site. Further that far more evidence has been provided, to our knowledge, than other sites have been required to provide for allocation in the Local Plan.
- 1.23 For the reasons set out in our Reps, Hearing Statement, at the Hearing Sessions and in the evidence and engagement with WSCC to date, we are of the view that we have demonstrated that there are no flood risk constraints which would preclude allocation of the New Salts Farm site for residential development.
- 1.24 Adur is required to make every effort to meet the housing needs of its area, and should positively seek opportunities to meet development needs based on co-operation with other authorities and private sector organisations. In this instance, where Adur are falling so far short of meeting their OAN in the Proposed Local Plan, they should be looking for every opportunity to contribute towards meeting their OAN. In respect of flood risk constraints identified at New Salts Farm, the Council, by refusing to engage with a landowner, and known housebuilder, who is willing to seek to find a solution to development constraints at their site, has clearly not positively sought to meet its needs and has not left every stone unturned.
- 1.25 The Adur Local Plan as currently drafted cannot be found sound as given the above it is contrary to the NPPF specifically paras 14, 17, 47, 152, 156 and 157.

# Appendix One – WSCC Email 27<sup>th</sup> and 29<sup>th</sup> March 2017

**From:** Ray Drabble [mailto:Ray.Drabble@westsussex.gov.uk]

**Sent:** 29 March 2017 10:27

**To:** Dinny Shaw

**Cc:** Julian Turner (jct@tullydeath.com); Kevin Macknay; 'ben.daines@adur-worthing.gov.uk'; 'ajp@tullydeath.com'; Caroline West; 'james.appleton@adur-worthing.gov.uk'; Mat Jackson; Andrew Williams; 'bankssolutionsuk@gmail.com'; ken.argent@adur-worthing.gov.uk; Moira Hayes (moira.hayes@adur-worthing.gov.uk)

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Dinny,

I am sorry that you consider that our response is unreasonable.

For clarification; it is not the case that we are *not willing to engage any further* with respect to the development of New Salts Farm; rather that it is appropriate to await the outcome of the Inspector's decision before we engage further. My understanding is that the deadline for submission of further evidence to the planning Inspector was 5pm 10 March, as confirmed by email from you to Chris Banks. The rationale for the LLFA's decision was made clear in my email to Julian Turner at Tully De'Ath of 27 March (attached).

The *more recent survey work* referred to in our correspondence is not information that WSCC owns and has been collected in support of the New Monks Farm development. I would recommend that in the first instance you approach the consultant engineer for this development whose details are as follows:

Gerry Waller

Tel: 01273 424424

Fax: 01273 424425

Email: [gerry@civil.co.uk](mailto:gerry@civil.co.uk)

The Civil Engineering Practice  
11 Tungsten Building  
George Street  
Fishersgate  
West Sussex  
BN41 1RA

Kind regards

**Ray Drabble**

Flood Risk Engineer (Sustainable Drainage)  
Economy, Infrastructure and Environment  
Highways and Transport  
West Sussex County Council

 CALL  IM  EMAIL

**Location:** Western Area Office, Drayton Lane, Nr. Chichester, West Sussex. PO20 2AJ.

**Contact:** **Internal:** 24077 | **External:** +44 (0)330 2224077 | **Mobile:** +44 (0)7590183138 | **E-mail:** [Ray.Drabble@westsussex.gov.uk](mailto:Ray.Drabble@westsussex.gov.uk)

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**From:** Dinny Shaw [mailto:DinnyShaw@boyerplanning.co.uk]

**Sent:** 28 March 2017 19:34

**To:** Ray Drabble

**Cc:** Julian Turner ([jct@tullydeath.com](mailto:jct@tullydeath.com)); Kevin Macknay; 'ben.daines@adur-worthing.gov.uk'; 'ajp@tullydeath.com'; Caroline West; 'james.appleton@adur-worthing.gov.uk'; Mat Jackson; Andrew

Williams; 'bankssolutionsuk@gmail.com'; [ken.argent@adur-worthing.gov.uk](mailto:ken.argent@adur-worthing.gov.uk)

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Dear Ray

We are disappointed to hear that you are not willing to engage further with us at this time in trying to agree a technical solution to the identified flood risks at New Salts Farm.

We have already agreed with the Environment Agency that there is a flood risk solution to the fluvial and tidal risks at the site and that the EA have no in principle objections to development on flood risk grounds.

To our knowledge, in seeking to address the concerns and comments raised by Adur and WSCC so far, we have already provided far more detail on the proposed drainage strategy for the site than other sites have had to do for allocation within the Local Plan. We have also provided a far higher level of detail than is reasonable or usual at this stage of the site promotion process, and a level which should normally be reserved for outline or detailed planning applications and could appropriately be required by policy wording. Nevertheless, we are willing to continue to engage with both parties and provide further information to seek a solution. For WSCC, as LLFA and in their role of supporting Adur through the EiP, to advise that they are not willing to engage any further is completely unreasonable.

Adur is required to make every effort to meet the housing needs of its area, and should positively seek opportunities to meet development needs based on co-operation with other authorities and private sector organisations. In this instance, where Adur are falling so far short of meeting their OAN in the Proposed Local Plan, they should be looking for every opportunity to contribute towards meeting their OAN. Refusing to engage with a landowner, and known housebuilder, who is willing to seek to find a solution to development constraints at their site, is completely unreasonable and contrary to the NPPF. There is no justification for this approach, and it only further demonstrates that the council has not positively sought to meet its needs and has not left every stone unturned.

This approach also disregards the request of the Inspector, set out in the homework list, which requires the Council to continue communication with Hyde Homes re New Salts Farm in order to fully understand whether an acceptable flood mitigation and drainage scheme can be achieved for the site. It is premature to end communication at this stage given there remains further information to be shared and discussed between us to seek to agree a solution.

Our understanding of the current position is that your outstanding concerns relate to the modelling of the catchment area and the recorded groundwater levels/infiltration rates at the site. We remain of the view that these matters can be addressed and will be responding separately to WSCC's letter (and comments from Ken Argent at Adur) in more detail but have set out our initial comments below.

In regards to the modelling of the catchment, this has been sensitivity tested (at WSCC request) and the results show that the area to the north of the catchment drains away from the site and does not contribute to the site's catchment and it is therefore appropriate to not include this in our baseline conditions.

We understand that WSCC has more recent survey work which we would like the opportunity to review to understand how it impacts upon our site and request that this is shared with us as soon as possible to inform further design development.

In regards to groundwater levels and infiltration rates, the drainage strategy has always been influenced by our detailed knowledge of ground water levels at the site and as such both infiltration and non-infiltration models have been designed. With the agreement of WSCC a worst case scenario, namely allowance for 1% AEP + Climate Change event, no infiltration and tide lock, and incorporating ground water level increases as a result of sea level rise, formed the basis for the current drainage strategy.

As addressed in our current design, groundwater levels and infiltration rates are elements which can be designed around with various options available. This includes setting the base level of the bio retention basin appropriately taking account of our knowledge of groundwater levels (which includes allowance for increases as a result of sea level rise) and incorporating either lined or non-lined basins. The inclusion of swales provides an additional benefit to the drainage design rather than forming a specific part of the system for infiltration and conveyance and hence the detailed design of these elements are not required to follow SuDS Manual gradients and could be removed without affecting the proposed drainage strategy.

The level of detail we are now getting into is, as mentioned, far beyond that normally required for site allocation. We have demonstrated that there are potential technical solutions based on a worst case scenario both with and without infiltration to manage and mitigate surface and groundwater flood risk at the site. The detailed design of the exact final solution which should be incorporated should be developed as part of a detailed planning application in discussion with WSCC and Adur rather than to inform site allocation. We are of the view that for the purpose of site allocation we have provided extensive evidence to demonstrate that the identified surface and groundwater flood risk at the site are capable of being overcome for the lifetime of the development without giving rise to flood risk elsewhere.

Nevertheless we are willing to continue to engage with WSCC and Adur to seek to resolve their outstanding concerns and are extremely disappointed to hear that WSCC are not willing to engage further in trying to agree a technical solution to the identified flood risks at New Salts Farm.

We welcome that WSCC will provide us with the evidence they refer to in their letter regarding groundwater levels - but would ask that this evidence is circulated asap so that discussions can continue in good time. We also welcome that WSCC intends to circulate the groundwater study scope.

We request that WSCC and Adur provide the above mentioned information in good time and continue to engage with us to agree a solution to flood risk at the site. This would enable the Inspector to reach an informed judgement on the soundness of the submission Local Plan based on agreed and up to date information and evidence.

Kind regards

Dinny

**Dinny Shaw** MRTPI  
Principal Planner

**t:** 0203 872 9873 **m:** 07580 835 062

**From:** Ray Drabble [<mailto:Ray.Drabble@westsussex.gov.uk>]  
**Sent:** 27 March 2017 12:41

**To:** 'Julian Turner'

**Cc:** Kevin Macknay; 'Ben Daines'; 'Ken Argent'; 'Andrew Picton'; Dinny Shaw; Caroline West; 'James Appleton'; Mat Jackson

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Julian,

Further to your call today, I am emailing to confirm the LLFA decision to await the outcome of the Planning Inspector's review of further evidence and a decision on the status of the New Salts Farm Site before engaging further with Tully De'Ath on drainage issues for New Salts Farm.

This is a procedural decision based upon our remit as the LLFA and the degree to which it is appropriate for us to be involved in detailed design issues. The level of detailed involvement on New Salts Farm arose directly out of the support that we provided Adur Council through the Public Examination process. It is therefore appropriate to await the outcome of the Examination in Public and review any further involvement thereafter.

You requested that I provide further details behind the statement in our recent letter: *there is evidence to suggest that groundwater levels (GWLs) at New Salts Farm would have been significantly higher than has been recorded for the site during 2015-16*. As I explained over the telephone, this statement is based upon the general differential between groundwater levels during 2016 and that for the preceding few years. I will put together a further explanation of this but it may take a couple of weeks to compile.

You also requested I send a copy of the scope for the groundwater study that WSCC is commissioning for which are seeking further investigation between projected sea-level-rise and tidally influenced groundwater levels close to the seafront. I will locate the details and send them via a separate email.

Kind regards

**Ray Drabble**

Flood Risk Engineer (Sustainable Drainage)  
Economy, Infrastructure and Environment  
Highways and Transport  
West Sussex County Council

 CALL  IM  EMAIL

**Location:** Western Area Office, Drayton Lane, Nr. Chichester, West Sussex. PO20 2AJ.

**Contact:** **Internal:** 24077 | **External:** +44 (0)330 2224077 | **Mobile:** +44 (0)7590183138 | **E-mail:** [Ray.Drabble@westsussex.gov.uk](mailto:Ray.Drabble@westsussex.gov.uk)

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**From:** Ray Drabble

**Sent:** 22 March 2017 14:48

**To:** Julian Turner

**Cc:** Kevin Macknay; Ben Daines; Ken Argent; Andrew Picton; Dinny Shaw; Caroline West ([Caroline.West@westsussex.gov.uk](mailto:Caroline.West@westsussex.gov.uk)); James Appleton

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Julian,

Here is the LLFAs response to the most recent documentation on the above received from Tully De'Ath.

Kind regards

**Ray Drabble**



Flood Risk Engineer (Sustainable Drainage)  
Economy, Infrastructure and Environment  
Highways and Transport  
West Sussex County Council



**Location:** Western Area Office, Drayton Lane, Nr. Chichester, West Sussex. PO20 2AJ.

**Contact: Internal:** 24077 | **External:** +44 (0)330 2224077 | **Mobile:** +44 (0)7590183138 | **E-mail:** [Ray.Drabble@westsussex.gov.uk](mailto:Ray.Drabble@westsussex.gov.uk)

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**From:** Julian Turner [<mailto:jct@tullydeath.com>]

**Sent:** 21 March 2017 08:53

**To:** Ray Drabble

**Cc:** Kevin Macknay; Ben Daines; Ken Argent; Andrew Picton; Dinny Shaw

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Ray,

Ok, thanks for your reply.

We look forward to receiving your response.

Julian

**Julian Turner | Associate**

Phone 01342 828000 | Fax 01342 828001 | [tullydeath.com](http://tullydeath.com)  
Tully De'Ath Consultants, Sheridan House, Hartfield Road, Forest Row, East Sussex, RH18 5EA

**From:** Ray Drabble [<mailto:Ray.Drabble@westsussex.gov.uk>]

**Sent:** 21 March 2017 08:46

**To:** Julian Turner <[jct@tullydeath.com](mailto:jct@tullydeath.com)>

**Cc:** Kevin Macknay <[kevin.macknay@westsussex.gov.uk](mailto:kevin.macknay@westsussex.gov.uk)>; Ben Daines <[ben.daines@adur-worthing.gov.uk](mailto:ben.daines@adur-worthing.gov.uk)>; Ken Argent <[ken.argent@adur-worthing.gov.uk](mailto:ken.argent@adur-worthing.gov.uk)>

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Julian,

Thank you for your email; yes, I have been through your response in detail. We still have outstanding concerns, both in relation to the modelling and the overall design. I am in a flood risk management group meeting until about 1400 today. However, on return I will send through some bullet points in relation to outstanding concerns.

As I have stated previously, this does need a view from the District Engineer in addition to any comments that the LLFA provides.

Kind regards

**Ray Drabble**

Flood Risk Engineer (Sustainable Drainage)  
Economy, Infrastructure and Environment  
Highways and Transport

West Sussex County Council



**Location:** Western Area Office, Drayton Lane, Nr. Chichester, West Sussex. PO20 2AJ.

**Contact: Internal:** 24077 | **External:** +44 (0)330 2224077 | **Mobile:** +44 (0)7590183138 | **E-mail:** [Ray.Drabble@westsussex.gov.uk](mailto:Ray.Drabble@westsussex.gov.uk)

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**From:** Julian Turner [<mailto:jct@tullydeath.com>]

**Sent:** 21 March 2017 08:16

**To:** Ray Drabble

**Cc:** Dinny Shaw; Andrew Picton

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Ray,

Following on from our telephone conversation last Thursday hopefully you had a chance to finish reading our response last week.

Are you able to get your response back to us at your earliest opportunity so we can aim to reach an agreement on the issues raised please?

As we discussed if you think a meeting would be of benefit please let me know and we can get something arranged.

Regards,

Julian

**Julian Turner | Associate**



Phone 01342 828000 | Fax 01342 828001 | [tullydeath.com](http://tullydeath.com)

Tully De'Ath Consultants, Sheridan House, Hartfield Road, Forest Row, East Sussex, RH18 5EA



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**From:** Julian Turner

**Sent:** 16 March 2017 10:48

**To:** 'Ray Drabble' <[Ray.Drabble@westsussex.gov.uk](mailto:Ray.Drabble@westsussex.gov.uk)>  
**Cc:** 'Dinny Shaw' <[DinnyShaw@boyerplanning.co.uk](mailto:DinnyShaw@boyerplanning.co.uk)>; Andrew Picton <[ajp@tullydeath.com](mailto:ajp@tullydeath.com)>  
**Subject:** New Salts Farm - Pre-Application Query 28th April 2017

Ray,

I've tried calling on the phone a couple of times but keep missing you.

Have you had an opportunity yet to consider our response to your letter of 28<sup>th</sup> February?

It would be helpful to get your reply so that we can come to an agreement on the matters raised. If you feel a meeting would be beneficial we are happy to come and see you at your offices.

I look forward to hearing from you.

Regards,

Julian

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# Appendix Two – Tully De’Ath Response

## 5<sup>th</sup> April 2017

**From:** Julian Turner [mailto:jct@tullydeath.com]  
**Sent:** 05 April 2017 11:10  
**To:** Ray Drabble; Ken Argent  
**Cc:** Kevin Macknay; Ben Daines; Andrew Picton; Dinny Shaw; Caroline West; James Appleton  
**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Ray,

Thanks for your letter dated 21<sup>st</sup> March.

Although there are no specific numbered references we have picked out the salient points from your summary and provide a response below;

#### Paragraph 1

Perhaps the LLFA could set out their recently updated understanding of the Lancing Brook System drainage flows and provide copy of the NMF survey that has informed this. Please can the LLFA expand upon what they consider to be a worst case surface water scenario? We have considered in our assessment the complete tide locking of the outfall for the entire duration of the storm event. We have sensitivity tested to runoff coefficient to review the impact of catchment saturation. And we have based our 1%AEP + CC rainfall on published best practice flood estimation guidance.

#### Paragraph 2

Ground water levels "...repeatedly higher than 0.8m across the site over winter months..."  
It is proposed that the base level of the bioretention basin is set at 1.10m AOD which is higher than any recorded level in that area. The bioretention basin is designed to accommodate ground water levels of up to 1.20m AOD over which the water will enter the overflow and discharge to the adjacent channel at greenfield run off rates. See 11649-CIV-SK200 attached.

Ground water levels "...there is evidence to suggest that ground water levels at New Salts Farm would have been significantly higher than has been recorded for the site during 2015-16..."  
We request W.S.C.C. to validate this statement, no evidence has previously been imparted. However, with reference to the Lancing Brooks Surface Water Management Plan "...seasonal variations are likely to be less marked than further inland..." and therefore this data should be relevant to the site.

Ground water levels "...the effects of sea-level rise will result in increasing ground water levels over time..."  
The current design allows for high ground water levels. Over the lifetime of the development sea levels are expected to rise between 72–96mm which has no significant impact on the current strategy. The bioretention basin may experience ground water up to a level of 1.2mAOD more frequently but this does not reduce the overall storage volume for the 1% AEP + Climate Change requirement which is contained within the bioretention basin.

Ground water levels "...ground water levels should influence the proposed drainage strategy for the site..."  
The drainage strategy has always been influenced by ground water levels and as such both infiltration and non-infiltration models have been designed. With the agreement of W.S.C.C. the worst case scenario (non-infiltration) formed the basis for the current drainage strategy.

Flood Risk “...flood risk needs to be based upon a worst case scenario...”

Flood risk has been based on the worst case scenario namely; allowance for 1% AEP + Climate Change event, no infiltration and tide lock.

Drainage solution “...inherent problems that are likely to inhibit its effective implementation... divergence from the SuDS Manual gradients for the swales...”

The drainage strategy has always recognised that the longitudinal gradient of the proposed swales is flatter than the recommended 0.5% longitudinal slope however they do not form part of the drainage design in terms of either infiltration or conveyance. They were introduced as an additional benefit and therefore could be removed without detriment of the system. However, it is considered that the benefit of including swales that will be flatter than recommended outweighs their omission.

Drainage solution “...inherent problems that are likely to inhibit its effective implementation... lining the detention basin...”

Lining was suggested as a potential solution to comments made by W.S.C.C. regarding the effect of ground water levels. However, the results of the recent geotechnical testing have demonstrated that there is infiltration potential in the natural soils and we have looked to benefit from this by removing the liner. To use as much of the infiltration potential as possible the run-off needs to be temporarily retained in the basin rather than immediately discharged to the channel. To do this overflow pits have been introduced that retain the first 100mm of water (amounting to approximately 3,000m<sup>3</sup>) to allow infiltration and when, in the case of larger storm events, the water level rises higher than the top of the pit it is allowed to flow into the piped system to the channel via an orifice flow control (limited to greenfield run-off rate). This means that there will be no discharge to the channel for smaller more frequent storm events. See 11649-CIV-SK200 attached.

With the aim of picking up all the outstanding points we have also added below our response to Ken Argent’s email dated 22<sup>nd</sup> March 2017 to which you were copied in;

1.1

The comment regarding using infiltration where possible has been accepted for some time. The reason for not allowing for infiltration in the current drainage model was that, in agreement with WSCC, we were to design for the worst case i.e. no infiltration to simulate extreme high ground water conditions. Stored water is discharged to the channel via an orifice flow control (limited to greenfield run-off rate).

1.2

The ground floor levels of the buildings are intended to be set above existing ground level therefore apart from the tidal flood event the building shouldn’t be damp/wet throughout the year.

1.4.1

The Basin is now not lined following on from the infiltration testing, refer to the paragraph above.

1.5

The photograph included is not New Salts Farm and therefore does not seem relevant.

1.7

Refer to paragraph above, we have requested W.S.C.C. to validate this statement, no evidence has previously been imparted.

1.8

Permeable pavement construction is widely used on estate roads across the country. Normally service routes are kept out of the carriageway (as they are with more traditional road constructions) and located in the adjacent footways/soft service margins. Services crossing the carriageway are ducted. We can supply numerous examples if required.

1.9

As referred to in previous paragraphs, the swales are included for additional benefit and do not form part of the drainage network.

2.1-2.6

The sensitivity test that was run shows that the area to the north drains away from the site and does not contribute to the site's catchment.

The contribution of runoff from the entire lancing brook system will only represent a very small portion of the flow in the River Adur and given the tidal influence I would not expect having a significant impact on River Adur levels. If they both discharge via a single outfall, then this may be relevant but the fact that they both discharge to the same watercourse (The Adur) is not.

If details of the New Monks Farm drainage proposals can be provided we can incorporate these into our baseline model if required.

Also with reference to the second paragraph in your email dated 29<sup>th</sup> March "*The more recent survey work referred to in our correspondence is not information that WSCC owns and has been collected in support of the New Monks Farm development. I would recommend that in the first instance you approach the consultant engineer for this development whose details are as follows...*" we have contacted Gerry Waller.

On speaking to Gerry it is clear that this information is not in the public domain. It would seem unreasonable that you refer to this information in your letter but due to the availability you cannot supply it to back up your statement nor can we obtain it ourselves to include it in our assessment. We have enquired as to whether this information could be shared but at this stage nothing has been forthcoming.

Although we understand your current position in terms of engaging further at this stage we are happy to discuss any of the above should you wish to do so.

Regards,

Julian

**Julian Turner | Associate**

Phone 01342 828000 | Fax 01342 828001 | [tullydeath.com](http://tullydeath.com)  
Tully De'Ath Consultants, Sheridan House, Hartfield Road, Forest Row, East Sussex, RH18 5EA

**From:** Ray Drabble [<mailto:Ray.Drabble@westsussex.gov.uk>]

**Sent:** 22 March 2017 14:48

**To:** Julian Turner <[jct@tullydeath.com](mailto:jct@tullydeath.com)>

**Cc:** Kevin Macknay <[kevin.macknay@westsussex.gov.uk](mailto:kevin.macknay@westsussex.gov.uk)>; Ben Daines <[ben.daines@adur-worthing.gov.uk](mailto:ben.daines@adur-worthing.gov.uk)>; Ken Argent <[ken.argent@adur-worthing.gov.uk](mailto:ken.argent@adur-worthing.gov.uk)>; Andrew Picton <[ajp@tullydeath.com](mailto:ajp@tullydeath.com)>; Dinny Shaw <[DinnyShaw@boyerplanning.co.uk](mailto:DinnyShaw@boyerplanning.co.uk)>; Caroline West <[Caroline.West@westsussex.gov.uk](mailto:Caroline.West@westsussex.gov.uk)>; James Appleton <[james.appleton@adur-worthing.gov.uk](mailto:james.appleton@adur-worthing.gov.uk)>  
**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Julian,

Here is the LLFAs response to the most recent documentation on the above received from Tully De'Ath.

Kind regards

**Ray Drabble**

Flood Risk Engineer (Sustainable Drainage)  
Economy, Infrastructure and Environment  
Highways and Transport  
West Sussex County Council

 CALL  IM  EMAIL

**Location:** Western Area Office, Drayton Lane, Nr. Chichester, West Sussex. PO20 2AJ.

**Contact:** Internal: 24077 | External: +44 (0)330 2224077 | Mobile: +44 (0)7590183138 | E-mail: [Ray.Drabble@westsussex.gov.uk](mailto:Ray.Drabble@westsussex.gov.uk)

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**From:** Julian Turner [<mailto:jct@tullydeath.com>]

**Sent:** 21 March 2017 08:53

**To:** Ray Drabble

**Cc:** Kevin Macknay; Ben Daines; Ken Argent; Andrew Picton; Dinny Shaw

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Ray,

Ok, thanks for your reply.

We look forward to receiving your response.

Julian

**Julian Turner** | Associate

Phone 01342 828000 | Fax 01342 828001 | [tullydeath.com](http://tullydeath.com)  
Tully De'Ath Consultants, Sheridan House, Hartfield Road, Forest Row, East Sussex, RH18 5EA

**From:** Ray Drabble [<mailto:Ray.Drabble@westsussex.gov.uk>]

**Sent:** 21 March 2017 08:46

**To:** Julian Turner <[jct@tullydeath.com](mailto:jct@tullydeath.com)>

**Cc:** Kevin Macknay <[kevin.macknay@westsussex.gov.uk](mailto:kevin.macknay@westsussex.gov.uk)>; Ben Daines <[ben.daines@adur-worthing.gov.uk](mailto:ben.daines@adur-worthing.gov.uk)>; Ken Argent <[ken.argent@adur-worthing.gov.uk](mailto:ken.argent@adur-worthing.gov.uk)>

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Julian,



Thank you for your email; yes, I have been through your response in detail. We still have outstanding concerns, both in relation to the modelling and the overall design. I am in a flood risk management group meeting until about 1400 today. However, on return I will send through some bullet points in relation to outstanding concerns.

As I have stated previously, this does need a view from the District Engineer in addition to any comments that the LLFA provides.

Kind regards

**Ray Drabble**

Flood Risk Engineer (Sustainable Drainage)  
Economy, Infrastructure and Environment  
Highways and Transport  
West Sussex County Council

 CALL  IM  EMAIL

**Location:** Western Area Office, Drayton Lane, Nr. Chichester, West Sussex. PO20 2AJ.

**Contact:** **Internal:** 24077 | **External:** +44 (0)330 2224077 | **Mobile:** +44 (0)7590183138 | **E-mail:** [Ray.Drabble@westsussex.gov.uk](mailto:Ray.Drabble@westsussex.gov.uk)

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**From:** Julian Turner [<mailto:jct@tullydeath.com>]

**Sent:** 21 March 2017 08:16

**To:** Ray Drabble

**Cc:** Dinny Shaw; Andrew Picton

**Subject:** RE: New Salts Farm - Pre-Application Query 28th April 2017

Ray,

Following on from our telephone conversation last Thursday hopefully you had a chance to finish reading our response last week.

Are you able to get your response back to us at your earliest opportunity so we can aim to reach an agreement on the issues raised please?

As we discussed if you think a meeting would be of benefit please let me know and we can get something arranged.

Regards,

Julian

**Julian Turner** | **Associate**



Phone 01342 828000 | Fax 01342 828001 | [tullydeath.com](http://tullydeath.com)

Tully De'Ath Consultants, Sheridan House, Hartfield Road, Forest Row, East Sussex, RH18 5EA



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**From:** Julian Turner

**Sent:** 16 March 2017 10:48

**To:** 'Ray Drabble' <[Ray.Drabble@westsussex.gov.uk](mailto:Ray.Drabble@westsussex.gov.uk)>

**Cc:** 'Dinny Shaw' <[DinnyShaw@boyerplanning.co.uk](mailto:DinnyShaw@boyerplanning.co.uk)>; Andrew Picton <[ajp@tullydeath.com](mailto:ajp@tullydeath.com)>

**Subject:** New Salts Farm - Pre-Application Query 28th April 2017

Ray,

I've tried calling on the phone a couple of times but keep missing you.

Have you had an opportunity yet to consider our response to your letter of 28<sup>th</sup> February?

It would be helpful to get your reply so that we can come to an agreement on the matters raised. If you feel a meeting would be beneficial we are happy to come and see you at your offices.

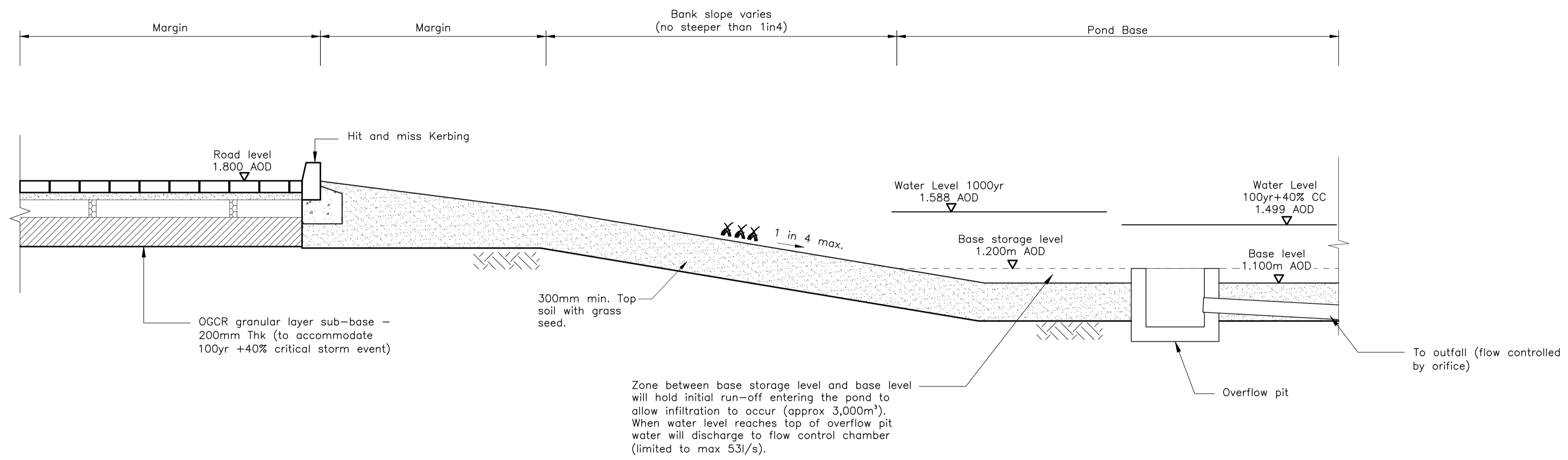
I look forward to hearing from you.

Regards,

Julian

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# Appendix Three – BRE Peer Review