Neutral Citation Number: [2019] EWHC 2846 (TCC)

Case No: D41BS867

IN THE HIGH COURT OF JUSTICE
QUEEN'S BENCH DIVISION
TECHNOLOGY AND CONSTRUCTION COURT

2 Redcliff Street
Bristol BS1 6GR

Date: 31/10/2019

Before :

HH JUDGE RUSSEN QC

(Sitting as a Judge of the High Court)

- -

Between :

KIVELLS LIMITED	**Claimant**
- and -	
TORRIDGE DISTRICT COUNCIL	**Defendant**

- -
- -

John de Waal QC (instructed by **Stephens Scown**) for the **Claimant**
Raj Sahonte (instructed by **Torridge District Council**) for the **Defendant**

Hearing dates: 12th to 14th and 17th to 19th June and 11th July 2019

- -

Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

.....

HH JUDGE RUSSEN QC

HIS HONOUR JUDGE RUSSEN QC:

Introduction

1. This case concerns the specification and performance of an animal effluent treatment plant constructed at the Holsworthy Agri-Business Centre ("**the HABC**") in 2014 as part of the works which saw practical completion of the newly-built HABC in August of that year.

2. Holsworthy is a market town in North Devon. The Claimant ("**Kivells**") carries on a business of auctioneering, chartered surveying, valuation and land agency which began in 1885. The Company was incorporated only relatively recently, in May 2013. Before that date its business had most recently been carried on by a partnership of five individuals who, upon incorporation, became members and directors of the company. One of them is Mr David Kivell. It was his great-grandfather, William Thomas Kivell, who set himself up as an auctioneer and land agent in Holsworthy in 1885, initially holding livestock auctions in the town square. It is clear that those behind the business still tend to talk about its affairs in general terms as if no separate corporate personality had since intruded; and in the paragraphs below I will often refer to Kivells using language which speaks as if its business still belongs to the individuals behind it.

3. Until Kivells began operating from the HABC at its site at Quagmire Lane, Holsworthy, they had been running the Holsworthy Cattle Market at the old market site at Underlane in the town of Holsworthy. The HABC is about 1½ miles from the town centre and about 12 miles to the north of the A30 trunk road.

4. The Defendant ("**the Council**") is Kivells' landlord of the HABC under a Lease dated 21 January 2015 ("**the Lease**"). Before the Lease came to be granted, in the circumstances explained below, the Council had been Kivells' landlord of the old market at Underlane under a lease granted in 2002. Kivells had occupied that market since it was built in 1906.

5. Kivells say that the effluent treatment plan at the HABC (referred to in this judgment as "**the ASS**" as it is intended to operate as an activated sludge system) is not of the type that the Council had agreed to install. They say it should instead have been a reed bed wastewater treatment system. The relevant contract to be considered for the purpose of assessing the merits of that complaint (before turning to consider the Council's arguments that Kivells are either estopped from asserting a contractual entitlement to a reed bed system or had either waived the relevant right or agreed to a variation of it) is an Agreement for Surrender and New Lease dated 12 September 2011 ("**the Agreement for Lease**"). If Kivells make good their claim of a breach of that agreement, they claim damages in respect of the electricity charges and sewerage charges which they have incurred and continue to incur when, they say, such charges would have been avoided (or, in the case of the electricity charges, reduced considerably) if the Council had installed a reed bed system.

6. Kivells also say that the ASS has failed to function properly since they took up occupation of the HABC and that the reason for that lies in specific alleged design defects, each of which constitute an "Inherent Defect" within the meaning of the Lease.

Although the responsibility for remedying such a defect is the responsibility of the Council, as landlord, Kivells seek to recover from the Council amounts which they have already incurred in the form of costs of repair to the ASS and the amount which they propose to expend in remedying the defect. The relevant contract for the purposes of testing the merits of that claim is the Lease.

7. Quite apart from any legal ones that might exist between the parties, Kivells recognise that there is a practical reason why they cannot now press for the installation of a reed bed system in place of the ASS. In circumstances where the latter mechanical system is now in place, there is no prospect of persuading the Environment Agency ("**EA**") to give its consent to a reed bed system. The installation of a reed bed is therefore no longer an option for the purposes of alleviating the burden of either ongoing sewerage charges or the greater part of the electricity charges payable by Kivells.

8. However, the proposed rectification of defects in the ASS would, Kivells say, ameliorate those ongoing costs. It will therefore be immediately apparent that there is a tension between any claim for damages in respect of utility bills to be incurred over the full remaining 15 years of the Lease and the claim to recover the anticipated cost of rectifying the system without unreasonable delay. Kivells recognise this and, in circumstances where a calculation of the former would produce a sum well in excess of the latter, they present their proposed rectification of the ASS as an exercise in mitigating the ongoing loss. But the ASS forms part of the demised property and, under the terms of the Lease, Kivells may only undertake the proposed alteration to the system with the Council's consent. And the Council has indicated it is not prepared to give it.

9. So far as liability is concerned, there are therefore two essential issues between the parties:

    1) what type of dirty water treatment system did Kivells contract for when agreeing to take a lease of the new market?

    and

    2) is the ASS, which came to be installed prior to the grant of the Lease dated 21 January 2015, designed in a way that leads the Council to be responsible for its repair?

10. So far as any issues over quantum are concerned, if liability is established, it will become apparent from what I say below about certain facets of the pleaded heads of loss that these now revolve around the question of assessing the economic consequences for Kivells of them having a wastewater treatment system of a type that they did not agree to and whose poor and costly performance they cannot (in the absence of the Council's consent) seek to remedy.

Issues for Determination

11. More specifically, and although the parties had not by the time of trial agreed upon a list of issues between them, the parties' rival formulation of them enable me to identify the following matters requiring determination ("**the Issues**"):

Issue 1: Was the Cyril Sweett document annexed to the Agreement for Lease and, therefore, the 'Specification' for the Development? If that document was not the Specification for the Development, what (if anything) was?

Issue 2: Are Kivells correct in their contention that the term 'Detailed Specification' in the Agreement for Lease should be construed so as to read 'Specification'?

Issue 3: Did the parties agree that a reed bed wastewater treatment system should be installed as part of the Development as opposed to the ASS that was installed?

Issue 4: If the answer to Issue 3 is 'yes', was the Agreement for Lease subsequently varied by the parties? However, this issue was identified by Kivells subject to their reservation that the Council has not pleaded an alleged variation.

Issue 5: As an alternative to Issue 4, if the answer to Issue 3 is 'yes', can the Council establish an estoppel by convention so as to prevent Kivells from contending that it is in breach of its obligation to install a reed bed system?

Issue 6: As an alternative to Issues 4 and 5, if the answer to Issue 3 is 'yes', are Kivells estopped by representation or by way of promissory estoppel from now insisting upon a reed bed system?

Issue 7: As an alternative to Issues 4, 5 and 6, if the answer to Issue 3 is 'yes', have Kivells waived the right to insist upon such a system or any remedy in that regard? Like issue Issue 4, this issue was identified by Kivells subject to their reservation that the Council has not pleaded an alleged waiver.

Issue 8: Is the ASS, as installed, defective in one or more of the respects alleged in the Particulars of Claim?

Issue 9: If the answer to Issue 8 is 'yes', does the defect or defects amount to an Inherent Defect within the terms of cl. 26.4 of the Lease?

Issue 10: If the ASS is defective, what is the cost of putting it into working order?

Issue 11: Are Kivells able to recover from the Council any costs identified under issue 10?

Issue 12: Have Kivells had to pay extra electricity and/or sewerage charges as a result of the fact that the ASS (as opposed to a reed bed system) has been installed, and if so in what sum?

Issue 13: Are Kivells able to recover from the Council any costs identified under Issue 12?

Issue 14: Is the Council obliged to compensate Kivells for their ongoing losses (of the kind identified under Issue 12) and, if so, in what sum?

> Issue 15: Can Kivells properly claim from the Council damages for the value of lost management time incurred in addressing issues relating to the operation of the Plant and if so in what sum?

12. By the start of the evidence at trial, two of the fifteen issues had ceased to be contentious and a third had been the subject of a concession (amounting to a cap on quantum for the purposes of Issue 10) by Kivells. As I have noted above in enumerating the issues, a further two (suggested Issues 4 and 7) were said by Kivells not to be matters that arose for decision on the respective pleaded cases.

13. Issue 1 had been an issue between the parties until right up to trial but was confirmed not to be so by Mr Sahonte's written opening dated 7 June 2019. Although that document did identify the question of whether or not the Cyril Sweett document ("**the CS Document**") had been appended to the Agreement for Lease, the Council's opening submissions simply stated that it was no longer an issue between the parties. Further clarification at trial revealed that this was because the Council now accepted that the CS Document had been annexed. It thereby belatedly gave the answer to the Notice to Admit Facts which had been served by Kivells on 13 November 2018.

14. For their part, Kivells indicated at the Pre-Trial Review that they would not be pursuing the claim to lost management time which had generated Issue 15 and this was again confirmed by Mr de Waal QC when opening Kivells' case. In relation to Issue 11, he also confirmed in his closing submissions that the Council's stance meant that, at least so far as prospective costs of repair are concerned, his client's focus had shifted to the claim for ongoing damages under Issues 12 and 13. As I have already mentioned, this is because there appears to be no prospect of the Council giving the necessary consent under the Lease to Kivells making any changes to the fixture which is the ASS.

15. So far as the suggested "non-issues" 4 and 7 are concerned, it is obvious that the Council's former position on Issue 1 (as it had been until days before trial) is likely to have some bearing on whether or not its Defence and Counterclaim can be read as supporting the existence of those two issues. If a party's position is that no particular contractual specification was agreed at the outset then it is not immediately obvious that it should then feel the need to argue that any such specification was subsequently varied or waived (the salience of any such alternative, fall-back case carrying with it the potential danger that comes with the implicit recognition that its primary case on the facts may be wrong).

16. At this stage, and on a related point, I should also note a material difference between the parties on the formulation of the Issues (or suggested issues). The formulation in paragraph 11 above borrows heavily from Kivells' version of them. In his opening and closing written submissions Mr Sahonte for the Council offered a different formulation. The Council's version did not have a direct equivalent to Issue 3 above but (on the question of what the parties had initially agreed) only equivalents to Issues 1 and 2. As I explain below, this is significant. It is clear that no "Detailed Specification" of the kind contemplated by the Agreement for Lease was (with that designation) formally adopted by the parties. However, by the start of the trial, it was common ground between the parties that the CS Document had been annexed to the agreement. In circumstances where neither side is suggesting that their agreement foundered for want

of a Detailed Specification – the HABC was built and the Lease duly granted in place of the former tenancy of the old market - it is necessary to grapple with the substance and not just the form of the agreement between them. As I have said, the first essential matter to be decided is as to the type of dirty water treatment system for which Kivells contracted.

17. Finally, in this section of the judgment I should also note that Mr de Waal QC submitted, without prejudice to his point that the Council had not pleaded the defences of waiver or variation, that those arguments fail on their merits anyway.

Facts

18. In this section of my judgment I set out the important background facts.

19. However, it is appropriate for me to enter a disclaimer at this stage. The trial bundle included a huge amount of contemporaneous documentation comprising some 5,000 pages (volumes 6 to 23, with an additional bundle "Y" to include some additional documents of that type, as well additional expert evidence, produced during the course of trial). I regret to say that the task of preparing this judgment has led me to realise quite how unnecessary it was to have a trial bundle of this size for a dispute over sums which are obviously significant for each side but not that great in the context of modern commercial litigation. As might be expected for a trial initially listed for 6 days with one day's judicial pre-reading, though it ran into a seventh, only a relatively few of that great number were referred to by the parties at trial (I should note they did prepare a very useful bundle of core documentation containing contractual documentation). I have therefore approached the present summary of the facts and my later assessment of any contentious issues between the parties on the basis that it is only those documents sought to given prominence by things said at the trial which I should have in mind as potentially influential.

20. I feel it is necessary for me to state what might otherwise be taken to be obvious because a significant number of the documents in the trial bundle had been introduced as exhibits to the witness statements on either side. In particular, Mr Andrew Waite on behalf of the Council affirmed a witness statement which was accompanied by 108 exhibits (I return below to the point that much of Mr Waite's witness statement comprised analysis of them rather than first hand or even hearsay evidence about them). They alone ran to approximately 1,700 pages. Clearly it would not be realistic, and it would probably not be fair to either party even though both subscribed to a relatively tight trial timetable, to expect the court to address the potential implications of documents about which no questions were asked, or submissions made, simply because they had been "put in evidence."

21. What follows is what I believe to be a largely uncontroversial summary of the essential facts. Where there is material disagreement between the parties upon a particular point then I note the existence of it.

22. In 2007 Kivells acquired an option to acquire land at Quagmire Lane from its owner Mr Percy May with a view to building a new livestock market there. The option was to expire around 2013.

23. From several years before that date Kivells and the Council had been in discussions over the purchase of the new site and a move from the old market. In circumstances where the system for disposing of the foul water is one of the key design features of any livestock market (the offices and auctioneering facilities, pennage and other surface layout being others) by 2010 they were discussing the idea of it being treated by a reed bed system.

24. ARM Limited were specialist reed bed contractors (and experienced in natural wastewater treatment) and by that Outline Proposal dated 22 December 2010, submitted to Pell Frischmann who were the structural engineers providing the Council with advice on drainage issues, ARM proposed their solution for treating contaminated run off from the cattle market at the HABC. The copy of the document in the trial bundle is so poor that it is impossible to decipher the diagrammatic representation of the proposal but it was described as an "*aerated reed bed [which] will require 20kw of power but does not have to run continuously*". ARM's proposal summarised the design details "*based on information provided by the client*" which included an average daily flow of 100m³ (whilst recording that no data had been supplied for minimum flow) and identified the average "BOD" and "SS" loadings of the influent (measurements which I explain below in the context of the expert evidence). ARM identified the main elements of the work involved in installing a reed bed system, ending with an outlet pipe one metre downstream of a treated water lagoon, and said the solution required an optimum footprint of 20m by 150m (3000m², or about three-quarters of an acre) and an optimum head loss of 2.5m. For budgeting purposes, they provided an indicative price in the order of £550,000 to £650,000 plus VAT.

25. A person with central involvement on behalf of the Council in relation to the proposed HABC, until he left the Council at the end of 2013, was Mr Peter Quincey. As I explain below, the Council had at one stage intended to call Mr Quincey as a witness at the trial but it seems that either he or the Council, or possibly both, later had second thoughts about that and in the event he did not give evidence. As I understand the evidence of others Mr Quincey was working both for North Devon Plus, a company promoting economic development and funded by the Council, and was part of the Council's Economic Regeneration Team.

26. By an email of 10 January 2011, which was copied to Mr Quincey, Mr Pitman of Pell Frischmann referred to the high capital cost identified by the ARM proposal but said "*we need to view it in the context of alternatives*." He went on to refer to the fact that SWW might need to carry out a full evaluation of the sewerage system before they could quote for a sewerage connection and that once that information was available "*we can compare the capital and operating costs of the options available to us*." A later email of 11 March 2011 from Mr Pitman (also copied to Mr Quincey) also confirmed that it was ARM's view that it was more cost effective to "*go with the aeration rather than increase the area of the beds*". ARM's proposed footprint of 3000m² for the reed bed was based upon it being aerated using electrical pumps (using 20kw of power but not continuously).

27. Mr Andrew Waite worked within the Council's Property and Procurement Team. In late February 2011, Mr Quincey and Mr Waite had an email exchange which contained recognition of a number of points in relation to the wastewater treatment system. Mr Robin de Wreede and Mrs Vanessa Saunders of the Council were copied into the

exchange. Mr de Wreede was employed within the Council's legal department. Mrs Saunders was the Council's Economic Regeneration Officer.

28. As appears from Mr Quincey's email of 25 February 2011, the first point was that, as a result of his meeting with Kivells the previous day and the level of rent proposed to them by the Council, "*they are now adamant that a reed bed system would be required to reduce their operating costs*." The second was that this issue had been brought sharply into focus by an estimate from SWW that the sewerage costs for discharging the market wastewater as well as foul water from the kitchen and toilets at the HABC would be in the region of £650 to £700 per week. The third was that a cost of £650,000 to install a reed bed system "*blows the overall construction budget*." On that basis, Mr Quincey had suggested that Kivells might wish to make the capital investment in the reed bed in order to realise long term savings in sewerage costs. Kivells had indicated that they would be willing to consider doing that if their financial outlay was reflected in a reduced rent. Mr Quincey asked Mr Waite whether that was something that might be considered or upon which the District Valuer might take a view.

29. Mr Waite's email in reply on 28 February 2011 contained his initial, negative reaction to the idea of a rent reduction if Kivells paid for the reed bed system but indicated he would ask "Robert" for his views. Mr Waite's view was that the operating costs savings and benefits would be sufficient compensation for Kivells: "*Can't really see the rent link in this though unless it affects the %s.*" I understand the reference to percentages to relate to the prospect that either the contemplated capital expenditure by Kivells or the resulting saving in sewerage costs might somehow be relevant to any later review of the turnover percentage rent to be paid under the proposed lease (even though that was to be fixed by reference to a percentage of Kivells' turnover rather than their profit). In any event, by an email of 1 March 2011, Mr Robert Voaden of the Valuation Office told Mr Waite that he agreed with his view and that "*if Kivells wish to invest £650,000 to reduce their annual expenditure I do not accept that the Landlords should accept a lower rent*."

30. On 26 May 2011 a meeting took place between David Kivell and Kevin Hicks of Kivells and Mr Quincey, Mr Waite and Mr de Wreede on behalf of the Council.

31. The notes of the meeting record a discussion of possible ways around an apparent change of stance by Mr May, the owner of the Quagmire Lane land. The idea of Kivells exercising the option to acquire the site at £750,000 and working up a scheme themselves was considered "*unlikely due to their current capacity/expertise*" but an idea to be further considered was that "*Kivells and the Council jointly pay the option fee, transfer the agri-business site to the Council and develop the industrial land*." In essence, this is what later happened with the Council funding the development and granting a lease of the HABC to Kivells.

32. The notes of the meeting on 26 May also record a number of matters were discussed in relation to the proposed lease. The first two were recorded as follows:

> "*Reed bed system incorporated which reduces water discharge to practically nil. Supplier giving 5 year warranty but necessary to connect to mains in case of failure. Kivells requesting service pack or some sort of underwriting from Council. Could possibly be addressed by retention on the construction contract to ensure system operational."*

"Rent of £80,000 based on gross turnover of the market. Agreed."

33. By June 2011 the parties were negotiating Heads of Terms for the HABC ("**the HoT**") which were expressed to be "subject to contract". Versions of the HoT were prepared on 14 June, 16 June and 28 June 2011. The last of those was agreed, on a subject to contract basis. The HoT outlined the basis on which Kivells would surrender their existing lease of the old market and take a new 20 year lease on the new site (with the protection of the Landlord and Tenant Act 1954). Section 6 of the HoT described the Proposal, which the Council's agent would submit and a planning application, and paragraph 6.3 (which described what was to be constructed upon receipt of planning permission) read as follows:

> "*The Proposed Development on the Subject Land will comprise the following elements:*
>
> *(a) New Livestock market and agri-business centre building to include 2no. sales rings, stalls, loading facilities, pay counter, café/seminar room, chattels room, auctioneer's office, training and skills centre, trading pods, WC's, concourse.*
>
> *(b) Trailer and car parking areas.*
>
> *(c) Bio-security at entrance and exit points.*
>
> *(d) Surface and storm water attenuation ponds.*
>
> *(e) Foul water treatment including a reed bed system.*
>
> (f) *Lairage area.*"

34. Paragraph 7 of the HoT stated that Kivells' relocation (through the surrender of its existing lease and their agreement to take the new lease) would be conditional upon the Council completing the construction of "the Proposed Development". Section 8 addressed the basic terms of the new lease. These included a rent determined by turnover (but subject to a minimum £80,000 per annum) and a tenant's full repairing covenant (subject to an exception for wear and tear). Paragraph 8.16 noted that the reed bed system was to be provided at the cost of the landlord. The same paragraph noted that any costs associated with the failure of the reed bed system would be covered for the first 2 years by a 5% retention made by the Council against the contractor and, thereafter, by either a contractor's warranty or by Kivells under their repairing obligation.

35. Mr Hicks of Kivells had, on 14 June 2011, proposed that any failure of the surface water and effluent discharge system within the first five years should entitle Kivells to deduct from the rent payable the cost of discharging into the main sewers. Mr Quincey had responded on 16 June 2011 saying that could not be agreed by the Council, that any failure through poor installation or design would be apparent within the first 24 months and that Kivells would have the benefit of the warranty. He said that the reed bed system was well tried and tested technology and that complying with the maintenance

regime would be critical if the system was to remain effective and the warranty valid. When Mr Hicks persisted with the point, Mr de Wreede sent the following comment to Mr Waite in an email of 20 June: "*You know my views on this – they wanted a reed bed, they have got the reed bed and the benefit to their business in terms of reduced sewerage overheads. I know we are getting an increased rental, but we are also committing £6m to assist their business. To ask us to maintain it on top is a joke*."

36. The "Subject Land" (for the purposes of paragraph 6.3 of the HoT) was identified by red edging on a plan annexed to the HoT as Appendix 1 but no such plan has survived for inclusion within the trial bundle. It is therefore not possible to say whether it earmarked particular land for a reed bed.

37. On 12 September 2011, the Council and Kivells entered into the Agreement for Lease in respect of the existing lease of Holsworthy Cattle Market and the grant of a new lease of the HABC to be constructed at Quagmire Lane.

38. The Agreement for Lease, at clause 1.1, defined the proposed HABC as follows:

> *"…. a new Agri-Business Centre to be constructed on property owned by the Landlord at Quagmire Lane, Holsworthy, Devon which shall comprise:-*
>
> *(a) a livestock market including (but not limited to) sales rings, stalls, loading and unloading facilities, café, auctioneers office, toilets and ancillary facilities;*
>
> *(b) parking areas;*
>
> *(c) appropriate bio-security arrangements; and*
>
> *(d) attenuation facilities and lairage areas*
>
> *as further specified in accordance with the Specification*."

39. The "Specification" (for that "Development") was defined in the Agreement for Lease as:

> "*the specification for the Development annexed to this Agreement at Annexure 1 as the same may be varied by agreement between the parties and such expression shall where the context so admits or requires include any modification or variations made in accordance with this agreement or by written agreement between the Developer and the Owner (both parties acting reasonably)*."

40. The terms "Developer" and "Owner" were not defined in the Agreement for Lease. The Council was described as the "Landlord" and Kivells as the "Tenant". The term "Development" was defined by words which referred to the works to be carried out by or on behalf of the Council, again in accordance with the Specification.

41. As I have already noted, it was conceded by the Council very shortly before trial that the CS Document was Annexure 1 to the Agreement for Lease. It was therefore the "Specification" for the purposes of the agreement, albeit that the definition of that term contemplated its later modification or variation.

42. The Agreement for Lease was, in large part, a conditional contract. The construction of the HABC, Kivells' surrender of their existing lease and them taking the new lease of the HABC (and occupying the HABC pending the grant of the new lease) were conditional upon the Council acquiring title to the property at Quagmire Lane and securing compliance with or waiver of the "Planning Condition". That condition was described as "*the grant of a planning permission for the Development which is acceptable to both the [Council] and [Kivells] (both acting reasonably)*".

43. Under clause 3.1 of the Agreement for Lease, the Council was as soon as reasonably practicable after the date of the agreement (if not before) to lodge a planning application for the Development and to use its reasonable endeavours to secure the grant of an acceptable planning permission. The restraint upon Kivells to act reasonably in deciding whether or not the terms of any permission duly granted were "acceptable" was further elaborated upon by clause 3.5 which obliged them to act reasonably and in good faith and stated that they "*shall only be entitled to decide that the planning permission is unacceptable if it contains a condition or conditions which (in [Kivells'] reasonable opinion) affects the operation or viability of the new cattle market facility at the Property (including but not limited to restrictions on the hours of activity).*"

44. A draft lease was also annexed to the Agreement for Lease as Annexure 3. Clause 26 of the draft lease related to repairs and maintenance of the HABC and clause 26.5 (which in this respect is materially different from the clause in the executed Lease upon which Kivells mount their claim for the cost of remedying defects in the ASS) made express reference to the possibility of their being an inherent defect in relation to "*the reed bed system at the Property*" and to how, if the resulting costs could not be recovered under any warranty, the resulting costs would be borne as between Kivells and the Council. Like the CS Document, at Annexure 1, the draft lease therefore made express reference to a reed bed system. It also included a reference to attenuation ponds, reed beds or other treatment systems in its definition of "Service Media". The draft lease also identified the rent which came to be payable by Kivells under the Lease into which the parties later entered in January 2015: a rent of £46,897 per annum for the first year and thereafter a "Turnover Rent" (with a minimum base rent of £80,000 per annum in the second and third years).

45. The CS Document (Annexure 1: the Specification) was described as being a "Preliminary Order of Cost Estimate" dated 29 January 2011. Cyril Sweett were the quantity surveyors appointed by the Council for the HABC development. By their document they made it clear that they had based their costings upon certain drawings by the architects ("**Grainge Architects**") instructed by the Council. One of those was a Proposed Site Plan but the copy of which in the trial bundle was too faint and indecipherable for the purposes of identifying any area set aside for a reed bed system.

46. The CS Document also stated that an "*allowance has been made for Reed Beds and is based upon ARM outline proposal dated 22.12.10*" and "*Services can be connected into mains in the vicinity of the site*."

47. In its final section, which included the costing of drainage at the HABC, the CS Document included the reference to "Reed beds" in the sum of £650,000 (alongside separate costings for other drainage items including foul and surface drainage from the main building and an allowance for connection into existing drainage systems).

48. Despite the exchanges between members of the Council's team earlier in the year, which recognised the significant capital cost involved in installing a reed bed system, it was nevertheless clear from the CS Document and the draft lease also attached to the Agreement for Lease that, in September 2011, the parties were contemplating that foul water from wash-downs at the cattle market (as opposed to human sewage from the buildings at the HABC) would be treated using a reed bed system, even if there might also have to be a connection to the mains sewerage system to cover the possibility of its failure. I return to this important point below in addressing Issues 1 to 3.

49. On 14 September 2011, two days after entry into the Agreement for Lease, the application for planning permission for the HABC (and a wider Agri-Business Park) was submitted to the Council's planning department. The Planning Application addressed "Foul Sewage" by indicating that this would be by "mains sewer". I also return below to the terms of that application, which result in a favourable recommendation in early July 2012 and to the grant of planning permission on 29 May 2013, in connection with those same issues and also Issues 4 to 7.

50. On 15 September 2011, and at the suggestion of Mr Quincey, David Kivell and his partner Mark Bromell visited Hereford livestock market with Mr Quincey and Mr Pollontoine from Grainge Architects to see arrangements there, including the "wetland system" that had been installed. Mr Kivell and Mr Bromell also went on to visit Shrewsbury cattle market. By an email of the following day, Mr Bromell reported to Ms Clements at the architects that "*the reed bed system at Hereford is actually known as a wet system (slightly different to reed bed and much cheaper) and looks fantastic, simple and effective*." Mr Quincey responded by saying "*I too was interested in the WET system as a potential alternative to a reed bed. There are a number of well established WET systems in the South West and we will be making contact to determine how successful they have been*."

51. One month after the date of the Agreement for Lease, by a later email dated 12 October 2011, Mr Quincey sent an email to Mrs Saunders referring to the discovery from site visits to Hereford and Shrewsbury markets that it was vital to design fully the reed bed, ground works and pennage at the HABC for two reasons. The first related to the need to avoid contractors pricing too much into their tenders for any unknown factors. The second was the "*need to ensure that the livestock market is fit for purpose and clearly the key operational items are the pennage and drainage systems*."

52. In February 2012, Sands Consultants ("**Sands**", the civil and structural engineers engaged on the project) produced a "Foul Disposal Options Report" for Grainge Architects. This addressed four options for disposing of foul water: discharging to the public sewer of South West Water ("**SWW**"); onsite treatment and recycling (reed bed and wastewater treatment systems) discharging to a watercourse; onsite treatment (a standalone reed bed or wastewater treatment system) with no such discharge; and discharge to a nearby biogas plant. The advantages of the third option were noted to include the absence of regular payments to SWW or to the EA and the disadvantages to be that it was the "most expensive option" to install.

53. On 8 March 2012, Mr Quincey sent an email to Jamie Purdue of Sands saying that the "*E[nvironment] A[gency] had advised that reed beds are unacceptable*" and "*our options are limited to a combination of treatment and discharge into the main sewer*." He went on to refer to the need to make a "*judgment call in upfront costs v long term utility bills*".

54. On 15 May 2012 the Council entered into a contract to sell the old market site to Cavanna Homes. It was by selling its land at and surrounding the old site, to Cavanna Homes for £2.4m and to Tesco for £3m, that the Council was to raise moneys to fund the HABC project.

55. In July 2012 Grainge Architects prepared a Design Summary for the purpose of inviting tenders for the construction of the HABC. Under the heading "Foul Water Drainage Strategy" it stated that "*it is proposed that all foul waste, agricultural and domestic, could discharge to South West Water's (SWW) foul pumping station located 650m to the south west.*" It referred to the requirements of SWW as far as effluent strength and rate of flow were concerned: 3000mg/l COD and 1500mg/l TSS and a total daily discharge of 80m³ (at a maximum rate of 1.4l/s).

56. It was also in about July 2012 that the firm which was later selected as main contractor for the HABC ("**Morgan Sindall**") first became involved in the proposed project, when asked by the Council to complete a pre-qualification (for tender) questionnaire.

57. On 7 August 2012 there was a meeting between Mr Quincey and the Kivells' directors to which I return below in the context of considering Issues 4 to 7. By this stage Kivells had become aware that the Council was considering the possibility of installing a mechanical wastewater treatment plant.

58. In late August 2012 there was an exchange of emails between Mr Purdue, Mr Quincey and Ms Clements of Grainge Architects in which Mr Purdue said that the two foul water options for the site were a "*minimal treatment plant costing £182,000 which will incur a trade effluent cost of £1,532 per week*" and a "*greater treatment plant costing £500,000 which will incur a trade effluent cost of £260 per week*." Ms Clements had responded to the weekly operating costs of the former by saying "*What a lot of money – is that normal?*"

59. On 31 August 2012 the Council issued its Invitation to Tender for the construction of the HABC. It referred to three drainage options, the first two of which (by reference to different measurements for COD and suspended solids, as those are explained below) contrasted minimising the cost of discharging to the mains sewer with minimising the capital cost of the treatment system. It incorporated the architect's Design Summary.

60. On 1 October 2012 Morgan Sindall invited CE Projects ("**CEP**") to tender for the subcontract work installing a wastewater treatment system in accordance with the terms of the main tender documentation. This meant that CEP were informed of a permitted daily discharge of 80m³ (and treatment to a minimum requirements of SWW) identified in the Design Summary.

61. At the end of October 2012 Mr Quincey was able to tell Kivells that the planning committee were proposing to grant planning permission for the new market subject to certain terms. At a meeting between him, Mr Hicks and Mr Gregory of Foot Anstey

(Kivells' solicitors) on 31 October 2012 there was a discussion in relation to foul water drainage. I also return to this meeting below in addressing Issues 4 to 7.

62. On 8 November 2012 Morgan Sindall submitted their tender for the HABC in the total sum of £6,698,587. It referred to past liaison with SWW and then envisaged a "dissolved air flotation" on-site wastewater treatment system in order to meet the discharge parameters for pumping to their sewerage treatment plant.

63. Morgan Sindall were informed that their tender had been chosen by the Council as the successful one (out of six conforming tenders) on 18 December 2012.

64. On 10 May 2013 Mr May transferred the land at Quagmire Lane to the Council for £350,000. In the Transfer of that date, the land subsequently leased to Kivells was described as the "Livestock Market Land" which, as marked on the attached plan, amounted to approximately 14 acres. The surrounding transferred land was, together with land retained by Mr May, described as the "Commercial Land".

65. On 26 June 2013 CEP sent to Morgan Sindall details of the design of the ASS. I refer to the details of the loading for which it had been designed in addressing Issues 8 and 9 below.

66. On 28 January 2014 Mr Kivell, with Mr Bromell, visited the newly opened Raglan market (in place of the old Abergavenny town cattle market) with Doug Jenkin of the Council and representatives of Morgan Sindall and the architects. The visit had been arranged by Mr Jenkin who had taken over responsibility for the HABC after Mr Quincey left the Council in December 2013. The purpose of the visit was to see the mechanical wastewater treatment plant installed there. Mr Bromell explained in his evidence that the Raglan system (which he said had since been replaced due to its failings) was in fact quite different from the ASS which came to be installed at the HABC, as it comprised a series of small tanks and was designed to discharge into a ditch.

67. On 29 July 2014 Kivells representatives were given what their witnesses described as a quick run through, on site, of the ASS by Simon Johnston and his daughter Elaine Johnston-King of CEP. Mr Kivell said that they were provided with an Operation and Maintenance document which was only two pages long and that a more detailed one was only provided about a year later (he also said that part of the detailed document was written in Italian and Ms Johnston-King thought that would be the part relating to the pumps).

68. Kivells moved into the HABC in August 2014 and held their first cattle market there on 3 September 2014.

69. On 8 September 2014, Foot Anstey wrote to the Council saying that Kivells were prepared to complete on the Lease without prejudice to their contention that the Council was in breach of the Agreement for Lease in failing to install a reed bed system.

70. Kivells encountered technical difficulties with the ASS even before the first cattle market was held in September 2014. David Kivell's witness statement contained a comprehensive summary of the problems experienced from August 2014 onwards and identified in contemporaneous correspondence. An example is the "list of all the

current problems with the dirty water system" which Tom Downing, the market manager, sent to Mr Spear of Morgan Sindall and Mr Champion of the Council on 13 October 2014. He listed twelve items.

71. The Lease was formally executed on 21 January 2015. It contained, at clause 26, the provision for the Council to be responsible for remedying any "Inherent Defect" in the demised property or any item installed on it but obviously the provision in the earlier draft lease over any inherent defect in relation to the reed bed system had come out.

72. The problems which Kivells thereafter encountered with the ASS were comprehensively set out in the witness statement of Mr David Kivell. I will refer to those relevant to the alleged defects relied upon by Kivells when addressing Issues 8 and 9. By June 2016, Kivells had engaged the services of Micromac Filtration ("**Micromac**") to review the performance of the ASS. By their letter of 14 June 2016 Micromac identified the oversized aeration tank (saying "*for a tank of this size the wastewater contains insufficient nutrients to maintain a biological culture to provide treatment*") and the high electricity costs of running floating aerators.

The ASS

73. The wastewater treatment system installed at the HABC is known as an activated sludge system. It is designed for biological treatment of animal effluent at the market in the manner explained in the following paragraphs.

74. Untreated wastewater from the livestock market is discharged through the cattle market drains to the ASS. It is important to note that the wastewater, or influent, represents the wash-down of the market (including any wash-down of vehicles by farmers who choose to use the jets to clean their vehicles there after market) after the solid manure and straw has been swept away to the midden, together with such further wastewater as leaches away from the midden.

75. The ASS has the following components:

    1) A wastewater reception pit.

    2) A pipe and two electrically-powered, centrifugal pumps used to pump the wastewater to the rotary drum screen. The pumps operate on a standby basis rather than continuously.

    3) An elevated rotary drum screen (or separator) fitted with 2mm perforations designed to screen the raw effluent by removing straw and other solid matter. The screen is fed by pipes and leads to a screenings discharge chute (the output of which is then taken out of the ASS system).

    4) A steel (and glass coated) balance tank of 230m³ capacity which receives the wastewater after screening. The balance tank (sometimes referred to as a retention tank) evens out the flow rate of the wastewater, into the following parts of the system, between times of peak use (i.e. market days). The balance tank is fitted with an electric powered floating aerator (or mixer) so as to keep its

contents aerated and to prevent them becoming septic. The aerator operates on a timed basis according to the level of the balance tank contents.

5) A pipe and two electrically-powered, standby feed pumps to pump the wastewater from the balance tank to the aeration tank. It is pumped at timed intervals from the balance tank to the aeration tank. According to CEP's Operation and Maintenance Manual, the pumps were suitable for dirty water containing solids of up to 15mm.

6) A steel (and glass coated) aeration tank of 1000m³ capacity fitted with a floating aerator. It is in the aeration tank that the bacterial breakdown of water pollutants, through the activated sludge process, is intended to take place. The aeration tank is fitted with a submerged probe for measuring the amount of dissolved oxygen.

7) A conical clarifier which is connected to the aeration tank and which is fed by the aeration tank by a process of displacement (and gravity) when that tank is fed by the balance tank. The clarifier is designed to separate the bacterial sludge from the treated wastewater. The contents of the aeration tank enter a central diffuser drum within the clarifier. The sludge collects in the narrower bottom of the cone. The sludge can either be re-introduced into the ASS (either the balance tank, via the wastewater reception pit, or the aeration tank) or, alternatively, diverted to a sludge holding tank before being taken off-site by tanker. Although the drawing of sludge from the clarifier is on a timed cycle, the choice as to whether to reintroduce it to the ASS (when it is known as return activated sludge or "**RAS**") or to take it away (surplus activated sludge or "**SAS**") is one required to be implemented manually. The treated wastewater goes to the treated water discharge tank.

8) A pipe and two electrically-powered, standby RAS/SAS pumps.

9) A sludge holding tank of 25m³ capacity to receive any sludge from the clarifier which is to be taken away by tanker.

10) A treated water discharge tank.

11) Two electrically-powered, standby sewer discharge pumps.

76. Although the ASS was designed to operate with these components (and produce an output that would meet SWW's standards for pumping to their sewage works) since around the Spring of 2017 it has not really operated as an activated sludge system, as Mr Hawes confirmed in his testimony. He referred to works undertaken by his company Micromac in April 2017, which involved fitting a submersible pump to enable the balance tank to be emptied. The pump is operated by float switches. This was Micromac's suggested solution to avoiding the build-up of solids within the system in circumstances where SWW had in October 2016 notified Kivells that the solids content of their effluent was greatly in excess of that permitted by the terms of their consent. Micromac had advised that the SWW's sample reading for suspended solids (a

measurement I refer to in the next section of this judgment) was such that the effluent could be regarded as "sludge".

77. Mr Hawes said in cross-examination that, in circumstances where the pumps installed by CEP could not be used because of blocked pipework, the effect of this temporary fix was to "overpump" from the balance tank to the aeration tank. Dr Davies' Report referred to this "flexible pipe arrangement" by which, instead of operating the system in automatic mode, wastewater was being pumped periodically from the balance tank to the aeration tank and then the submersible pump was being used to pump the contents of the aeration tank to the clarifier through a flexible pipe. He said that "*this arrangement offers no treatment of the wastewater other than some settlement of solids in the aeration tank and clarifier*." His view was that the use of the temporary pump and flexible hose to the clarifier will have led to the build-up of solids in the aeration tank. Dr Davies said that when he visited the site in April 2018 the aeration tank was covered in pond weed, suggesting that the surface aerator on that tank had not been operated for several weeks.

78. It is obvious from the evidence, viewed generally, that this current state of affairs is the result of the ASS failing to function in the manner intended of it, despite Kivells' previous expenditure of significant amounts of time and money in attending to its malfunction and its repair.

The Evidence

The Expert Evidence

79. Kivells relied upon the expert evidence of Mr Stephen Hawes BSc (and a Chartered Engineer and Member of the Institute of Mechanical Engineers) who has worked in the water treatment industry for 40 years. Until the Company's recent dissolution, Mr Hawes had been a director of Micromac since 1999.

80. The Council relied upon the expert evidence of Dr Gareth Davies BSc PhD (who holds his degree and PhD in biochemical engineering and who is a Chartered Chemical Engineer, Chartered Scientist and Chartered Water and Environmental Manager) with 26 years' experience in the water and waste industries.

81. The expert evidence from Mr Hawes and Dr Davies did not develop with the orderliness contemplated by the court's original case management Order dated 7 June 2018. It is necessary to comment upon this not only to understand what expert evidence covered, as it evolved in written form down to the end of the first day of trial, but also as a reminder of the importance of experts adhering to a procedural timetable which is aimed at avoiding either of them giving the other, or the parties and the court, any late surprises.

82. On 29 March 2019 the Defendant's expert, Dr Davies, wrote to the court explaining the circumstances in which he and Mr Hawes had failed to reach agreement over the terms of a joint statement identifying the issues arising out of their reports. On 1 March 2019 the Court had made an Order providing for such a joint statement (an earlier Order of 7 June 2018 had set the timetable in relation to expert evidence) and set the deadline of

29 March for any explanation of the absence of one. Part of the court's response, by email dated 8 April 2019, contained a reminder of the terms of the existing orders which required the experts to focus upon the alleged defects in the ASS pleaded at paragraphs 16.1 to 16.6 of the Particulars of Claim. It was apparent from the numerous pieces of correspondence submitted with Dr Davies' letter that there was an element of them using the contemplated joint statement as an occasion to "reinvent the wheel", in elaborating upon their respective views about the system, when it should instead have contained a distillation of points already adequately made by them.

83. With some slippage in the timetable set in June 2018, the Reports of Mr Hawes and Dr Davies had been exchanged in December 2018.

84. On 2 May 2019, Kivells issued an application for permission to rely upon the Supplemental Report of Mr Hawes dated 19 April 2019. That application was issued in the face of an application by the Council, issued on 23 April 2019, that Kivells be precluded from relying upon the expert evidence of Mr Hawes (or alternatively that they be precluded from any recovery of his fees and expenses) on the ground that he was said to have failed to respond to certain requests for clarification of his existing Report. I heard these matters on 13 May 2019, a month before the start of the trial. The upshot was that I granted Kivells permission to rely upon Mr Hawes' Supplemental Report, with certain redactions, and granted the Council permission (if so advised) to serve a supplemental report by Dr Davies "limited to responding to the Supplemental Report of Mr Hawes" to be filed and served by 28 May 2019. The redactions related to matters which either had not been pleaded as defects of the ASS (in paragraphs 16.1 to 16.6 of the Particulars of Claim) or were matters of fact beyond Mr Hawes' direct knowledge; including complications in the operation of the system, high electrical power consumption and the blocking of the pipe between the aeration tank and the clarifier.

85. What was becoming apparent to the court by the end of March, which was that each expert wished to say significantly more about the functioning of the ASS than that for which their respective reports of December 2018 laid the ground, was further confirmed by what followed after my Order of 13 May 2019.

86. By his Supplemental Report dated May 2019 (I was told it was served on 28 May as contemplated by the previous Order) Dr Davies submitted a document which clearly went beyond the scope of the permission granted on 13 May. So much was obvious from the fact that it was only at page 21 of its 36 pages of text (to be compared with the 64 pages of text in his original Report which included a lengthier summary of background matters) that Dr Davies began, at Section 5, his "Review of Mr Hawes Supplemental Report 30/4/19". The preceding pages contained considerably greater detail than that set out in his December Report. Table 1 ("Process Modelling Results") in the earlier one had become Table 8 in the Supplemental Report; and the later version contained different figures than those which had been put forward in the earlier one (as observations drawn from a postulated biological loading of the ASS based upon one, two or three major markets per week). The Supplemental Report had seven appendices. Some of these went to its earlier tables (in particular Table 6 which fed into the revised Table 8) and to Dr Davies' calculations about the number of animals being auctioned at market and the amount and composition of manure produced by them whilst there.

87. This further effort by Dr Davies prompted Mr Hawes to prepare what he described as a "Narrative for the HABC Effluent Treatment Plant". This was handed up to me by Mr de Waal QC on the first day of the trial. In a section headed "Wastewater Strength", Mr Hawes sought to take issue with Dr Davies' revised workings. In addition to the text in the narrative, Mr Hawes set out his suggested alternative calculations for Dr Davies' Tables 6 and 8 based upon his (Mr Hawes') analysis of the actual loading of the system.

88. Mr de Waal QC said that the production of Mr Hawes' narrative was a constructive way of addressing the further report of Dr Davies when that contained a significant amount of material that could not be said to be responsive to Mr Hawes' Supplemental Report or, therefore, to have been previously permitted by the court.

89. The rather disorganised way in which the experts came to fully reflect upon and then articulate their views upon the pleaded issues had a potentially disruptive effect upon the conduct of the trial. By the Order dated 13 March 2019 the parties' agreed trial timetable for the 6 day trial (as it was then contemplated to be) with a further day of judicial pre-reading on 11 June 2019 was set by the court. The second day of the trial was to be for the experts to present their evidence from "the hot tub", with them giving evidence concurrently in response to questioning led by me before being separately cross-examined.

90. I would have liked to have been in the position of having formulated my questions for the experts by the end of the day allowed for pre-reading. However, Dr Davies' Supplemental Report did not come to be added to my copy of the trial bundle until around 4pm that day and I did not receive Mr Hawes's narrative rejoinder until Mr de Waal began to open the case. The evening of the first day of the trial was the first opportunity to attempt an understanding of the experts' fresh analyses before they gave their evidence. As I remarked to counsel that day, it is unlikely that I would have agreed to the "hot tubbing" of the experts if I had known that so much of what they wanted to say would be presented to me so late in the day. Nor is it, for more general reasons that must be obvious, in the interests of litigants for the court to be burning the midnight oil during the course of a trial in an attempt to gain a full understanding of rival contentions (of some technical complexity) that should have been flushed out well before its commencement.

91. My questioning of Mr Hawes and Dr Davies was for that reason probably more ponderous and time consuming than it might otherwise have been and it occupied more than half of the second day of the trial. Yet that was a better outcome than spending valuable trial time on a further case management ruling that might have resulted in the court proceeding in ignorance of matters that the experts had belatedly come to believe were important and which could have influenced the outcome of the case. In the circumstances, Mr Hawes' narrative was indeed a constructive way of avoiding that risk.

92. The main allegation levelled by Kivells against the Council is that the size of the aeration tank is considerably greater than that required to cope with the livestock effluent washed into the ASS. With that point in mind it is necessary to focus upon some of the science behind the intended operation of the ASS.

93. As noted above, the ASS system installed at the HABC is designed for the activation of sludge. The activation of the sludge, where the bacterial treatment of the wastewater occurs, takes place in the aeration tank. That tank is designed to aerate the wastewater with bacteria which break down the pollutants. In order to function effectively, at this stage of the treatment process, the influent wastewater needs to be of a certain composition (by which I mean, essentially, that it needs to be within a certain range of "strength" when tested against the scientific measurements outlined below).

94. Biochemical Oxygen Demand ("**BOD**") is a measurement used to show the polluting strength of livestock manures and organic waste. It measures the contamination levels within liquid waste. BOD is the amount of oxygen needed by microorganisms to break down organic material present in water. It is measured in milligrams per litre (mg/l). BOD will depend upon the temperature of the water. The BOD process of measurement of a given water sample at a certain temperature is one that takes five days.

95. Another measurement of such wastewater (to describe it using the layman's term "effluent" would ignore that, before treatment in such systems as the ASS, it is properly labelled "influent") is that of Chemical Oxygen Demand ("**COD**"). COD is the measure of the capacity of water to consume oxygen during the decomposition of organic matter (and the oxidation of inorganic chemicals such as ammonia and nitrite).

96. The testing of COD takes about two hours to complete, much quicker than the five days for a test of BOD. But there is a correlation between the two which makes the quicker determination of the COD value useful for establishing the BOD calculation which is relevant for the proper functioning of an ASS. The COD value is usually taken as about twice the BOD value for treatable waters like those from the washing down of livestock markets.

97. The Food to Microorganism Ratio ("**F/M Ratio**") is an empirical measurement of the amount of incoming "food" divided by the level of micro-organisms in the activated sludge. The "F" denotes the incoming food (the influent BOD, measured now in kilogrammes) and the "M" denotes the mass of microorganisms (also measured in kilogrammes). Establishing the F/M Ratio helps determine the proper number of microorganisms required in the treatment process.

98. Another scientific measurement of the polluting strength of the wastewater entering the aeration tank is that of the concentration of mixed liquor suspended solids ("**MLSS**"). The MLSS is used as a measure of the biomass within the aeration tank. It is the MLSS measurement which underpins (though is not exactly the same as) the "M" element of the F/M Ratio. MLSS is measured in milligrams per litre. The suspended solids (**SS**) element of the liquid mixture is obviously not dry when measured in that medium but SS can be measured by capturing them through filtering and drying (at certain specified temperatures). They are sometimes referred to as Total Suspended Solids ("**TSS**"). MLSS is not only relevant to the likely rate of biodegradation within the aeration tank. Alongside the COD measurement, MLSS values in effluent are relevant to the amount charged by water and sewerage undertakers in respect of the discharge of industrial wastewater into the sewer. Like South West Water in the present case, such statutory undertakers charge according to the Mogden formula (which is applied also to discharges from municipal sewage works) which operates to determine the charging rate according to the levels of COD and MLSS.

99. The measurements outlined above, and particular the components of F/M Ratio, highlight what I would describe in layman's terms as the important balance between the amount of aerated water (containing the oxygen necessary to sustain the microorganisms) and the amount of biomass (to be degraded by those microorganisms) within the tank. As the system depends on aeration of the water (and activation of the "sludge") it will be appreciated that the size of the aeration tank – when proper oxygenation within it is clearly key to the health of the microorganisms at work on the waste within it – will clearly be linked to the quantity and polluting strength of the wastewater going into it. One of the points made by Mr Hawes is that the aeration tank is so excessively large for the load going into it that it would require almost constant aeration. He said in evidence that as the tank is, in his opinion, about ten times too large "*you have to aerate it ten times too much*."

100. At the trial, reliance was placed by the experts upon *Wastewater Engineering, Treatment and Resource Recovery* (by Mectcalf & Eddy) in relation to these and other measurements. Mr Hawes, Kivells' expert, had in fact referred to the earlier third edition, published in 1991, which contained slightly different design parameters (in terms of F/M Ratio and MLSS) for an ASS operating on the extended aeration basis. The Council's expert, Dr Davies, relied upon the fifth edition, published in 2013. As the ASS was commissioned in 2014 it is obviously right that the experts and I should be guided by the fifth edition.

101. The fifth edition of Metcalf & Eddy (at Vol. 2, page 793, Table 18.9) identifies the following "Typical design parameters for commonly used activated sludge processes" where the ASS is designed as an extended aeration plant:

F/M Ratio: 0.04 - 0.1

MLSS: 2000 – 4000 mg/L

I should make it clear that each represents a range with each figure representing the lower or upper limit of the relevant parameter. In the third edition of the book the parameters were 0.05 – 0.15 (F/M Ratio) and 3000-6000 mg/L (MLSS) respectively.

102. In his Report of December 2018 (at para. 7.5.2) Dr Davies referred to the FM Ratio parameters in the fifth edition to say that, for the purpose of meeting the effluent discharge conditions applied to the HABC, the F/M Ratio would "*ideally need to be between 0.04 and 0.1 which is the typical range for an extended aeration activated sludge system*". In his Supplemental Report dated 28 May 2019 (at para. 5.5.5) he referred again to the textbook's parameters but made the point that most plants are bespoke to the purpose they are intended to serve and this was the case for the ASS (which had its own particular specification) and that "*common design parameters are therefore simply a guide for such bespoke installations*." In that later Report (at para. 3.2.7) he had referred to extended aeration plants operating at an FM Ratio between 0.03 and 0.1 (thereby contemplating a slightly lower ratio than the bottom outlier identified in Metcalf & Eddy).

103. By the start of the trial the areas of disagreement between the experts had been brought into sharper focus in the form of their rival versions of Dr Davies' "Process Modelling Results" (Table 8 in his Supplemental Report as reworked by Mr Hawes in his Narrative).

104. For the moment, I address only the relevant parameters of the F/M ratio and for MLSS for the proper operation of an extended aeration plant.

105. I have mentioned above Dr Davies' written evidence upon the F/M ratio figures for an extended aeration plant. In cross-examination he said that Metcalf & Eddy was widely used in the UK but he denied that an activated sludge plant would not work with a lower F/M Ratio than that identified in the textbook (I have already noted that his later report had contemplated extended aeration operating at a ratio of 0.03). In resisting that suggestion he gave the example of a plant operating in the United States at a ratio of 0.001, though he later accepted that the suggested F/M Ratio operating parameters published by the Department of Environmental Protection of Pennsylvania (for extended aeration) were 0.01 to 0.07.

106. In the course of his re-examination Dr Davies also referred to the activated sludge systems marketed by Bio-Bubble Technologies whose sales literature he had exhibited to his later report (in the paragraph referring to an FM Ratio of 0.03 to 0.1) to show that "*these types of systems (sic) are used throughout the UK and throughout the world*". However, when I then asked Dr Davies some questions about this he gave answers which, in my judgment, revealed that the Bio-bubble "Advanced Aeration" treatment system is indeed a different type of system from that installed at the HABC.

107. That appears to be clear from his exhibited literature which refers to the Bio-bubble advanced aeration system requiring "*larger basins than the intensified design of other systems*" and, even more clearly, by the different figures given for sludge age, sludge production and inert solids as between the extended and advanced aeration processes. The Bio-Bubble literature refers to a sludge age of up to 100 days for the advanced aeration process compared with 40 days for extended aeration. In his Report dated 21 December 2018, Mr Hawes said that he would expect a sludge age of 20 to 30 days in an extended aeration plant like the ASS (he had in fact calculated it to be a very long 440 days). In the course of his earlier testimony, given concurrently with Mr Hawes, Dr Davies said (by reference to Table 1 in his first report) that he would calculate the sludge age for the ASS at between 30 and 60 days. This evidence indicates that the advanced aeration process promoted by Bio-Bubble is indeed something different again from that for which the ASS is designed. In response to questions from me, Dr Davies said they shared common aspects. However, what appear to be significant differences between them lead to the claim in their literature that "*no other biological process has successfully emulated*" their results for final effluent quality and those and other benefits "*can be achieved using far less energy and power than conventional systems, with lower requirements for operational tasks and asset maintenance, and without chemical additives*."

108. I therefore conclude that Dr Davies's earlier report correctly identifies the "ideal" range of F/M Ratios for a plant such as the ASS as those are set out in Metcalf & Eddy (without his slight gloss at the lower end); namely 0.04 - 0.1.

109. So far as the parameters for MLSS are concerned, I have noted above that Metcalf & Eddy identify these as 2000 mg/L to 4000 mg/L for an extended aeration.

Factual Evidence

110. Before I turn to identifying the witnesses who attended the trial to give evidence I make a general observation. In his closing submissions Mr de Waal QC made the point that every witness was doing his or her best to assist the court. I agree with that general observation though, as I explain below, there were only so many points that the witnesses called by the Council were able to cover by reference to matters within their own knowledge. For his part, Mr Sahonte urged me to bear well in mind what he described (by reference to more recent authority reminding judges about the danger of relying upon witnesses' recollection of events which took place many years ago) as "the principle of documentary superiority". I have done so, though for reasons I explain by reference both to the gaps in the Council's evidence and what I regard to be the generally corroborative effect of the documents on Kivells' case on Issues 1 to 3, I do not think the recent reminders about the proper judicial approach to the assessment of evidence have much resonance in the present case.

111. In that regard, a further point therefore falls to be made about the testimony relied upon by the Council.

112. The principal witness from the Council was Mr Waite who was part of its Property and Procurement Team and who became its Property Manager upon the retirement of Mr Doug Jenkin from that role in September 2014. In October 2016 he became Senior Estates Officer. Mr Waite said that, from about 2010, he had input into the project for the HABC. He had direct responsibility for obtaining vacant possession of the land and premises comprised within Kivells' lease of the former market, acquiring the land for the HABC and the grant of the new lease to Kivells. As he shared office premises with Mr Jenkin, Mr Peter Quincey and Mr Andy Champion, he also had a wider understanding of the HABC project.

113. Mr Waite's witness statement was very comprehensive, running to some 40 pages of single-spaced text. In testimony he accepted that part of his statement was based upon his recollection of events but a significant part was also based upon him having subsequently read certain disclosed documents in the case. This concession obviously has an impact upon the weight to be attached to certain aspects of his evidence, though in the absence of a trawl through each of paragraph of his witness statement (which the trial listing did not permit having regard to the number of other witnesses) it remained difficult to identify the parts of his evidence which were based upon memory and those others which reflected his after-the-event analysis of documents or communications with which he was not concerned at the time. His first paragraph, with the customary introductory language of a witness statement that includes hearsay material, recognised the requirements of paragraph 18.2 of Practice Direction 32 but I regret to say that not all of the subsequent ones alerted the reader to those falling within the second category.

114. The difficulty this creates for the court is illustrated by the terms of paragraph 65 of Mr Waite's witness statement. Having referred to the terms of an email of 19 August 2011 from Mr de Wreede in the Council's legal department into which Mr Waite was copied (so this was between the date of the HoT and the date of the Agreement for Lease) he said:

> "*Accordingly, the intention expressed in that email was that any specification attached to the agreement for lease and surrender would be a stop-gap and no*

> *more. As I have understood matters, Kivell's representatives agreed with this. There certainly was no dissent that I was aware of to this stance. Indeed, if there had been any dissent at that stage, the Project would more than likely have ended there, since, without the surrender of the old cattle-market site, the prime funding mechanism for the HABC would not have been available. ……."*

115. For reasons which I explain below, the Council's view (articulated in that paragraph by Mr Waite) as to what the Agreement provided for in respect of the contemplated evolution of the specification for the HABC, so far as the nature of any licence to make changes to it was concerned, accounts in very large part for the existence of this litigation. However, for present purposes – and in the light of the fact that Mr Waite stated (in his paragraph 69) that he had been involved in the drafting of the Agreement and in circumstances where the Council had conceded the Cyril Sweett document had been attached to it only days before the trial – I was obviously anxious to establish whether or not, and if so to what extent, Mr Waite's witness statement (dated 9 October 2018) reflected an assumption that the Cyril Sweett document formed no part of the Agreement. In response to questions from me on that point, he gave answers which lead me to conclude that his colleague Mr Quincey probably took the decision to attach it, that he (Mr Waite) was not aware at the time (September 2011) that this had been done, but that he had become aware of that fact (upon considering the disclosed documents) before he made his witness statement.

116. I have mentioned the uncertain divide between the direct and hearsay (including analytical) elements of Mr Waite's evidence because it highlights the absence of evidence from others whose account of events might have been thought to assist on at least one of the two main issues I have to decide.

117. In particular, the contemporaneous documents show the close involvement that Mr Quincey had with matters concerning the design and construction of the HABC in the years 2011 to 2013.

118. The Council clearly appreciated the potential significance of Mr Quincey's evidence (and him giving it had been built into the agreed timetable for trial). On 5 June 2019, the Council confirmed to the Court saying that it still wished to summon Peter Quincey as a witness. An earlier email of 14 May 2019 had indicated that the Council wished to withdraw witness summonses that had been applied for and issued in respect of Mr Quincey, Mr David Backaway (of Sands) and Mr James Purdue (also of Sands). By a direction communicated to the Council on 3 June, I agreed to set aside all three summonses though a footnote to that direction indicated that, after I had made it, the Council had telephoned the court to indicate uncertainty as to its intentions to call any one or more of them.

119. The Council's communication with the court on 5 June 2019 also stated that it had confirmed to Mr Backaway and Mr Purdue (but not Mr Quincey) that they were no longer required to attend court to give evidence. In the event, Mr Quincey was not called to give evidence. It is clear from the contemporaneous documents that Mr Quincey, above any other Council representative, took the lead in discussions with Kivells during 2011, 2012 and 2013 over matters touching upon the design of the HABC, including the cattle market wastewater treatment system. The absence of

testimony from him meant that there remained something of an evidential void (more obvious when viewed from the perspective of the Council's case) on the question of what, over time, came to be the Council's views on the appropriate type of system and whether or not, and if so how, Kivells were apprised of significant developments on that front.

120. Another proposed witness for the Council who it had intended to call at trial was Mrs Saunders who, as I have already mentioned, was its Economic Regeneration Officer (sometimes referred to as its Special Projects Manager) until her retirement in 2018. The agreed trial timetable had provided for her to give evidence on the fourth day, after Mr Waite and (as was then contemplated) Mr Quincey. By that fourth day, some significant slippage in the timetable had already occurred and it was apparent that the cross-examination of Dr Davies (which it had been anticipated would be concluded by the end of the second day) would need to take place on the sixth day which had been earmarked for closing submissions. I was told by the parties that Mrs Saunders had in fact attended court on the fourth day (Monday 17th June) but could not attend the following day or the next one because of work and then holiday commitments. Mr de Waal QC for the Claimant remarked at the conclusion of the trial that, had Kivells been told this on the Monday, they would have made arrangements for Mrs Saunders' evidence to be accommodated that day or pressed for her to attend on the Tuesday.

121. The Council had served witness summaries in respect of Mr Quincey, Mr Purdue and Mr Backway and a witness statement of Mrs Saunders. I had read these, quickly, during my pre-reading of the trial papers in anticipation of each of them being called to give evidence in accordance with their appearance within trial timetable. Mr de Waal QC said he had prepared himself to cross-examine each of them, as one would expect. In his closing submissions (his discrete written submissions on the point had been prepared on the misapprehension that the witness summons against Messrs Purdue and Backway had been set aside as opposed to "withdrawn" at the request of the Council) he objected to any of the witness summaries or the statement of Mrs Saunders being admitted in evidence.

122. On the other hand, Mr Sahonte's written closing submissions did rely (in footnoted cross-references) upon the witness summary of Mr Quincey, but not I think to the other three intended witnesses, and his Annex B addressed the "treatment of lay witnesses and evidence." In that annexure he made a number of points about the document-heavy nature of the case and to what sometimes proves to be the inability of a local authority and former employer to be "*always able to garner and bring to court all live witnesses in respect of its transactions*", especially when they took place some time ago. I am not sure this can be a convincing riposte in circumstances where the Council had availed itself of the facility to overcome such difficulties by using the witness summons procedure in relation to Messrs Quincey, Purdue and Backaway; and it certainly is not a good one in respect of Mrs Saunders who had been available to give evidence on the Monday. But, in any event, the Council rather misses the point when submitting in Annex B that:

> *"[Kivells] made clear that it would put its case to the main witness called by the [Council], which is precisely what it did. It cannot now complain that the other witnesses were unable to give evidence or were not called*."

123. Kivells are not so much making a complaint about the absence of these four witnesses in terms of the prejudice to their own case (and any complaint about Mr de Waal's wasted preparation cannot, I think, be relevant to the merits of the claim). On the contrary, their position comes to saying that the Council should not seek to support its own case, on any contentious issue of fact, by reference to the "evidence" of those who were not called so that they might then be cross-examined.

124. In my judgment, that is the correct approach for me to adopt. Although the parties did not in their submissions address me on the following provisions of the CPR, in my judgment the proper analysis of the position is that only the signed witness statement of Mrs Saunders can be relied upon as hearsay evidence whereas the unsigned witness summaries of the other three cannot be: see CPR 32.5(1). A witness summary does not represent a *statement* by the potential witness as opposed to a piece of drafting by a lawyer in the case (I presume) which anticipates what it is hoped that witness would say if called: see CPR 32.9. It is therefore not even hearsay and can have no evidential status in the absence of the proposed witness being called to adopt it in whole or in part: see CPR 33.1 and also CPR 32.9(5) (to note that the latter does not apply to a witness summary the particular limb of CPR 32.5 I have mentioned above). Although I reject Mr de Waal's submission that Mrs Saunders' statement should be treated as inadmissible, even though the Council (believing she would testify) did not comply with the procedure in CPR 33.2(2), I accept his overall point that, as hearsay evidence, her statement can be given relatively little weight in the face of competing testimony.

125. In addition to Mr Waite, the Council called Mrs Elaine Johnston-King (of CEP), Mr John Widgery (of WT Hills, the Council's quantity surveyors on the HABC project) and Mr Chris Spear, Mr Richard Hallt and Mr Wiliam Kellett (each of the contractors Morgan Sindall) to give evidence. I refer to their evidence, to the extent it is appropriate to do so, in connection with my findings below.

126. Kivells called four witnesses of fact: Richard Hyde, David Kivell, Kevin Hicks and Mark Bromell.

127. Mr Hyde is one of the auctioneers at Hereford Market Auctioneers Limited. I have already referred to the visit to Hereford market (which had opened in its new location some months previously) in September 2011. Mr Hyde explained how the wetland system at his market (comprising willow, reeds and wide variety of other plants) performed well and efficiently. He said it was in fact located above an aquifer. Mr Hyde said that the annual cost of operating the system was £15,540 (including the emptying of settlement tanks at £6,800).

128. In general terms, Mr Kivell dealt with the failings in the ASS, Mr Hicks with the negotiation of the Agreement for Lease and Mr Bromell with the financial consequences of the ASS having been installed.

129. In my summary of the facts above I have mentioned how, from the commencement of their operations at the HABC, Kivells began to encounter difficulties with the ASS. I referred to a list of problems compiled by Tom Downing, the market manager, in October 2014. Mr Kivell's witness statement contained a lengthy account of the problems and repair cost incurred by Kivells in the subsequent 4½ years. Mr Kivell referred to the fact that Mr Downing left Kivells' employment in the Spring of 2016,

saying "*I believe Tom had had enough of the problems at the new market*". In cross-examination, he said "*I think the system [i.e. the ASS] broke Tom Downing*."

Determination of the Issues

130. I now turn to issues identified in paragraph 11 above for the purposes of determining them in the light of the documentary evidence and testimony adduced at trial.

Issues 1, 2 and 3

131. I take these issues together because together they go to the essential question as to the type of wastewater treatment plant for which Kivells contracted. It is also convenient to do so in the light of the Council's position that a positive answer to Issue 1 does not serve to resolve that basic point (raised by Issue 3).

132. As to that fact, I have already noted that the Council came to concede that the CS Document was annexed to the Agreement for Lease. The answer to Issue 1 is therefore "yes": the CS Document was annexed to the Agreement for Lease, and it follows that it must be treated as the "Specification" as defined within it. That conclusion is entirely consistent with the terms of an email which Mr de Wreede wrote to Matthew Smith of Foot Anstey on 18 August 2011 (copying Mr Quincey). At his point dealing with "Specification", Mr de Wreede had recognised that at the point of exchange of the Agreement for Lease there would not be available the kind of detailed specification of the kind suitable for the invitation of tenders on a design and build contract. Recognising that this was "*not a perfect scenario*" he said: "*All I can suggest is that we put the best/most robust evidence we have in there*." It appears that Mr Quincey had provided Mr Smith with a copy of the CS Document to which he (Mr Smith) referred in an email to Mr de Wreede of 7 September 2011, saying: "*With regards to the specification, I understand Kevin [Hicks] has spoken to you on this and agreed that the document is a very elemental bill of quantities which will be supplanted by a tender specification when the same is to hand*."

133. With the incorporation of the CS Document into the Agreement for Lease as the "Specification" (and the draft lease also being annexed) it can be seen that the agreement made five express references to a reed bed system. The first was in its definition of "Necessary Consents" in relation to the location of such a system. Two more were made in the CS Document which, being a preliminary estimate of costs of the HABC, stated that an allowance of £650,000 had been made for reed beds "*based upon the ARM outline proposal dated 22.12.10*". And two more again were made in the annexed draft lease in providing that the Council's neighbouring land would not be able to connect into the system and in addressing the consequences, as between landlord and tenant, of any failure of the system through an inherent defect which was not covered by any applicable warranty. I have already explained how that second point had been raised by Mr Hicks in June 2011 in the context of negotiating the HoT (before the parties entered into the Agreement for Lease).

134. The ARM proposal of 22 December 2010 referred to in the CS Document was the one I have referred to in paragraph 24 above. The CS Document had taken the higher figure provided by ARM in their indicative quote.

135. In his written closing Mr Sahonte made extensive submissions about the limited implications of these references to a reed bed system. I believe I summarise adequately the Council's position on what he described as the live issue of the effect of the CS Document being attached, and the proper interpretation of it, by recording that it contends:

    1) the Council's obligation to carry out the "Development" in accordance with the Agreement for Lease (in accordance with the "Specification") was subject to it obtaining the "Necessary Consents" which (as defined at clause 1.1) included all necessary permissions or approvals from any local or other competent authority. That is the effect of clause 5.5 of the Agreement for Lease. Accordingly, the Council submitted (with my emphasis) that it owed no obligation to procure anything for which the relevant statutory authorisations were not forthcoming *or which was likely to face objection from any regulatory or statutory body*;

    2) a reed bed system would never have received the Necessary Consents;

    3) the terms of clause 5.5 (the need for the Development to be in accordance with any Necessary Consents) meant there was a "conflict" between the Specification and the terms of the Agreement for Lease. Clause 5.3 of the latter provides that the terms of the agreement take precedence over any conflicting provision set out in the Specification;

    4) the Specification cannot be elevated from its status as a subsidiary document into one that forms part of the Agreement for Lease when clause 5.9 provided that the "*Development shall be carried out in accordance with the Detailed Specification*". (For completeness, I should note that the clause went on to provide for immaterial, insubstantial or routine departures from that specification and - subject to Kivells' right to object which was qualified unless the variation went to the operational effectiveness or viability of the HABC – any departure dictated by the planning conditions or the terms of any Necessary Consents.); and

    5) on the proper interpretation of the Agreement for Lease, the concept of the "Detailed Specification" is different from that of the "Specification" but even if they are indeed the same thing "*all must however yield to clause 5.3*".

136. That is my summary of seven pages or so of detailed written submission supported by case law on such matters as the effect of "precedence clauses", the importance of building something that is fit for purpose whatever observance of the detail of the building plans or specifications might otherwise produce, and the general approach to contractual interpretation.

137. Stripped down yet further, it can be seen that what the Council is really saying is that because, it says, it would never have got approval to install a reed bed system it did not have to install one.

138. Even if factually well-founded, that proposition does not of course provide an answer to the present three issues which focus upon what it is that the Council and Kivells *agreed* should be the type of wastewater treatment system installed at the HABC. As I

observed during Mr Sahonte's oral submissions, it would be surprising if the parties had, on that rather elementary point, agreed one thing in the terms of the Agreement for Lease itself and another thing in the CS Document, so that in relation to that fundamental design attribute the provisions of clause 5.3 immediately came into play.

139. In my judgment, the Council's rather convoluted approach to the interpretation of the Agreement for Lease reveals what I would describe as the illegitimate process of reverse-engineering with it. It is obvious that one party's assertion as to the likely difficulty in full performance of a contractual obligation by reference to the anticipated intervention of a third party (in this case the giver or withholder of a "Necessary Consent") cannot assist in determining whether or not the obligation has been assumed in the first place. That is especially so when the basic contractual promise is qualified to cover the possibility of such anticipated intervention so that, in that eventuality, the performance of the obligation might then be modified but not entirely frustrated as a result of any such external forces. The process of contractual interpretation requires the obligation to be construed in its factual context, by reference to what was known to the parties when they agreed upon it, and not rendered wholly uncertain by what might lie in the future. Whether or not the parties build into the promise to perform some kind of qualification for future events, whether in terms of "best endeavours" or the kind of language which I have noted above was included in clause 5.9, the court must establish the nature of the underlying obligation which may or may not come to be qualified by such later events.

140. In my judgment, the Council's approach to contractual interpretation falls foul of these observations. As Mr de Waal QC observed, it also leads to the conclusion that the parties failed to reach agreement upon *any* type of wastewater treatment plant.

141. That is not the conclusion I reach. Instead, and by reference to the only description of one that they did use, the parties agreed upon a reed bed system. I reach that conclusion for the following reasons.

142. The Council is obviously right to observe that no "Detailed Specification", of the kind provided for by the Agreement for Lease, was subsequently prepared or agreed as a result of the kind of collaboration envisaged by clause 5.1. It is the absence of one and the resulting contractually imperfect scenario (to echo Mr de Wreede) that has spawned Issues 2 and 3. But it does not follow the CS Document counts for nothing. Although the Council has not, I think, expressly recognised as much in its concession that it was annexed to the Agreement for Lease, the CS Document was the "Specification". Like the draft lease annexed, it made specific reference to an allowance for reed beds and referred to the ARM proposal. Importantly, it would have been the basis for any Detailed Specification: see clause 5.1 of the Agreement for Lease.

143. Therefore, although I conclude that Kivells are not correct in their position on Issue 2 (the Agreement for Lease cannot be construed as if the Specification stands as the Detailed Specification when it expressly envisaged that the later would be agreed upon but never was) they are correct on Issue 3.

144. The reference in the Specification to a reed bed system did not create a conflict with any terms in the body of the Agreement for Lease and nor would any subsequent fleshing out of the design of one in a Detailed Specification have done so. Clause 5.3 is therefore a red herring. On the contrary, the definition of "Necessary Consents"

expressly contemplated that they would include planning authority or other consent for a reed bed system. Clause 3.1 provided that the Council would as soon as reasonably practicable (after the date of the agreement if it had not done so before) lodge a planning application for the "Development" (which was identified by reference to the Specification).

145. The broad structure of the agreement was that the Specification would be used as the basis for the planning application (see clauses 2 and 3) and, once planning permission had been granted in terms acceptable to both the Council and Kivells and the Council's acquisition of the site enabled the agreement to become unconditional, the Detailed Specification would be used as the basis for carrying out the Development (see clause 5). So far as any changes to the Development driven by the planning authority or any other authority were concerned, the position of Kivells was recognised at each stage. Clause 3.5 provided that Kivells would act reasonably and in good faith in confirming that the grant of planning permission was acceptable and would only be entitled to decide that the permission was unacceptable if it contained a condition which (in their reasonable opinion) affected the operation or viability of the cattle market. As I have already noted, clause 5.9 contained a similar ground for Kivells to object to any departures from the Detailed Specification that might be required in order to meet the terms of any Necessary Consents for the construction of the HABC. The agreement contained a dispute resolution procedure (by independent expert determination if necessary) in the event of any dispute between the parties at either stage.

146. Nothing in the contractual provisions mentioned above points away from the conclusion that in September 2011 the parties had decided upon a reed bed system for the treatment of wastewater from the cattle market.

147. For the avoidance of doubt, I should make it clear that I reject the Council's fall-back argument (a true alternative to that based upon the existence of a "conflict" between the Specification and the other terms of the Agreement for Lease) which was to say that the reference in the ARM proposal to the need for the intermittent use of 20kw of power (for aeration) and/or the reference in the CS Document to a connection to existing drainage systems meant that the market's wastewater was not to go to a reed bed. My understanding is that the concept of powered aeration went to the size of the reed bed, not whether the system would be dependent upon use of the mains sewer.

148. The Council's position is that such a system would never have got by the authorities. As I have explained, making that assertion does not lead to the conclusion that the Council had not agreed with Kivells to seek approval for one. It simply signifies that instead that the Council chose not to adhere to clause 3 of the Agreement for Lease.

149. Whether or not the Council's failure to do so was a breach of contract is not, without more, the key to testing the viability of the Kivells' claim. I have already observed that the current attitude of the EA alone means that that there is no question now of Kivells reverting to the notion of very belated specific performance of the Agreement for Lease or even damages in lieu. Kivells instead complain about the inadequacies of the substitute ASS for the purpose of claiming damages for the costly operation of a system of that type. But the Council's non-adherence to the letter of the Agreement for Lease is relevant to the determination of the next group of issues to be addressed below: Issues 4 to 7 concerning estoppel or waiver.

150. Before turning to those issues I should mention that the Council's assertion that it would never have received the Necessary Consents for a reed bed system caused me to inquire about the terms of the planning application that was lodged for the HABC. By the end of the trial the Planning Application submitted by the Council had been produced and inserted in the trial bundle.

151. I have touched upon the Planning Application in my summary of the facts. Reading the terms of it reveals the following points. First, that it was submitted by North Devon Plus (through Mr Quincey) on 14 September 2011, just two days after the Agreement for Lease. Secondly, that he proposed development was described as being in two parts. The first part related to the HABC (including the livestock market) in respect of which it was said to be a detailed application. The second part related to "the wider Agri-Business Park" or what was described by some of the witnesses at trial as either "the business land" or "the employment land" (it was described in the May 2013 Transfer as the "Commercial Land") in respect of which it was to be treated as an outline planning application. Section 11 of the Planning Application addressed "Foul Sewage" by indicating that this would be by "mains sewer". The options for identifying "other" forms of sewage disposal were left blank. Section 16 indicated that trade effluent and waste would need to be disposed of and referred to 3000 litres of milk being carried off site by tanker.

152. Further papers added to the trial bundle after the evidence but before closing submissions included the minutes of the Council's Planning Committee meeting on 5 July 2012 recommending the grant of planning permission. They recorded that "*foul drainage from the site would be diverted via the pump station directly into the main sewer, South West Water are content to support this*." On 29 May 2013 planning permission was granted subject to conditions which included one stating that prior to any approved buildings being brought into use "*the method of disposal of foul and surface water drainage shall be fully implemented and capable of use*." Inevitably, the Planning Permission identified numerous supporting plans but any that might have had a bearing on the detail of the foul water system were not before the court. Mr Waite's evidence was that, because the planning application made no mention of a reed-bed system, the plans in support of it simply showed attenuation ponds and the disposal of foul water through a mains sewer connection (the purpose of attenuation ponds being to regulate the flow into the mains sewerage system).

153. In support of its case that an application for approval of a reed bed system would never have secured approval the Council relied upon what were said to be concerns expressed by the Department for the Environment, Food and Rural Affairs ("**DEFRA**") in September 2011 and by the EA during November and December 2011. No direct evidence from DEFRA was led by the Council on this point which instead relied upon items of correspondence. In any event, it is clear that any such clear objections by the authorities that *might* have been relevant to later working through the implications of clause 3.5 or clause 5.9 of the Agreement for Lease cannot be relied upon as justification for the Council's failure to comply with its anterior obligation under clause 3.1 which it had only just agreed. Leaving to one side, for the moment, the Council's arguments of waiver or estoppel, to which the making of objections (falling short of formal refusal of a "Necessary Consent" in response to an application for permission for a reed bed) might be relevant, the Council's submission smacks of an attempt unilaterally to re-write the obligation it had only just assumed. And doing so involves

it creating the illusion of a "conflict" between the Specification and some other provision of the agreement.

154. In fact, the correspondence upon which Mr Waite relied to mark DEFRA's concerns (as relayed by Grainge Architects to the Council) pre-dated the date of the Agreement for Lease, by a matter of days, and focused upon DEFRA's concerns as to whether the reed bed system could be used for "possible diseased effluent" (mention was made of the possibility that there might be cattle at the market which had not been tested for TB) and the disposal of milk which could not go through a reed bed. There was no indication, therefore, that DEFRA were opposed to a reed bed system for dealing with most effluent.

155. As for the EA, they wrote a letter to the Council's planning department on 9 November 2011 and therefore after the planning application had been submitted. Their position was that insufficient information had been provided in support of the foul water and surface water drainage proposals. The EA's letter correctly noted that the summary of the planning application stated that the foul drainage would be connected to the public sewer and indicated that they would require written confirmation from SWW that the option was available given that substantial capital expenditure upon the sewage treatment works might be required in order to accommodate the additional loading. However, the letter also picked up a contrasting reference in an Environmental Statement in support of the planning application which made reference to "*a treatment plant for all foul water produced by the operation of the livestock market*". It is right to note that the EA indicated that they would have an objection in principle to a "*discharge to surface waters as we are not confident that a passive system, balancing tank and reed bed could treat the large volume envisaged to a standard that would not have an adverse impact on the small receiving watercourses*" and that the seasonal waterlogging of the soil would mean that "*a soakaway, even just for sewage, would not be feasible*." The EA said that, if a treatment plant was proposed, they would wish to see the specifications as soon as possible.

156. The Environmental Statement to which the EA's letter of 9 November 2011 referred was prepared in July 2011 by Novell Tullett, landscape consultants and specialists in environmental impact assessment. The document referred to the other specialist consultants (including the architects, structural engineers and quantity surveyors) engaged by the Council on the proposed HABC. In relation to drainage, the Environmental Statement indicated that the HABC would involve "*attenuation ponds for surface water run off produced by the operation of the livestock market*." It went on to say:

> "*It is currently proposed to dispose of sewage to the public sewerage system on the nearby industrial estate. However, options are being investigated for on-site sewage treatment possibly using a septic tank and reed bed, thereby avoiding the need for connection to the public sewerage system*."
>
> And later:
>
> "*A reed bed system to enable microbiological treatment of the wash down effluent has also been proposed for the development, and further consideration of this design feature is underway.*"

And:

"*Additionally there shall be the provision of a treatment plan for all foul waste produced by the operation of the livestock market …*"

And (in relation to the foul run-off resulting from the use of collected rainwater in washing down vehicles and pens):

"*The foul runoff from these areas will then be routed to a foul water treatment system which shall be designed in consultation with the EA*."

157. Although much of the Environmental Statement was exhibited to the witness statement of Mr Waite, it appears that "Volume 3" of it was not (the EA having referenced paragraph 1.1.1(iii) of that part). It is therefore unclear what anticipated volumes of discharge of foul water from the livestock market the EA had in mind when writing its letter and referring to "*the large volume envisaged*". I refer below, in the context of Issue 8, to how the views of the professionals acting for the Council appeared to have developed on the question of the likely daily and weekly discharge from the HABC.

158. As the EA's letter indicated, the Environmental Statement was submitted to the planning authority. When the Council's Planning Committee came to consider this aspect in July 2012, and to recommend the grant of permission, they noted that the EA had "*no objections in principle subject to final designs and rate of flow being agreed prior to implementation for surface water*" and that, on the basis that the flow could be restricted by attenuation to 1.4l/s, SWW would be able to support the proposal of foul water flowing to the pump station before entering the sewerage network without the need to upgrade it.

159. The plain fact is that the Council does not appear to have pursued with its own planning department the option of a reed bed system which was flagged as a possibility by the Environmental Statement of July 2011 and agreed upon by the terms of the Agreement for Lease. Indeed, Mr Waite's witness statement sought to emphasise the parts of Environmental Statement which, he said, pointed to the use of a mechanical foul water treatment plant (and in circumstances where it was a publicly available document) as showing that Kivells must have appreciated as much. His witness statement sought to make a positive point about the fact that there was "*no mention of a reed-bed system in the planning application*." It also said, by reference to what DEFRA had said about the Environmental Statement in their letter dated 9 November 2011, that it was "*clear by this stage that, even if a reed-bed system were eventually installed at the HABC, it would require a mains connection to the sewer with the result that there would be a charge to discharge into a public sewer*."

160. The essential question I must address next is whether these points made by Mr Waite, which reflect the course the Council decided to adopt, came to be acknowledged and acquiesced in by Kivells.

Issues 4 to 7

161. This next group of issues goes to that question and whether or not Kivells cannot be heard to rely upon the Specification (and the reference to a reed bed system in the draft lease attached to the Agreement for Lease) because they later agreed to vary their agreement with the Council, or waived the right to a reed bed system, or are estopped from asserting their contractual right.

162. I have already noted that Kivells do not accept that the Council has pleaded an alleged variation or waiver and it is therefore necessary to determine whether Issues 4 and 7 are truly before me. Mr de Waal QC made the accurate observation that he had made clear his position, that these matters were not pleaded, at the Case Management Conference in June 2018 even though Mr Sahonte then said that they had been. Each side was prepared to proceed on the assumed correctness of its own position without then seeking a ruling on the point.

163. As Mr de Waal maintained his position at trial, it is noteworthy that Mr Sahonte was not able to readily provide the references to the paragraphs in the Defence and Counterclaim where these matters are said to be relied upon. I would expect a plea of subsequent variation to be identifiable in the statement of case because of the need to establish an agreement supported by consideration and, although it is possible for the concept of "waiver" to extend to mere temporary forbearance, the Council's suggested defence of waiver is said to preclude any complaint about the substitution of the ASS for a reed bed system in a way that should require it to identify the words or conduct of Kivells that are said to have constituted the representation upon which the Council relied.

164. The Council's Defence and Counterclaim is a relatively lengthy document, running to 23 pages and 96 paragraphs compared with the 7 pages and 23 paragraphs of the Particulars of Claim. The Counterclaim comprises just the last of those paragraphs and a prayer for declaratory and (general) other relief. The requested declarations refer back to specific paragraphs in the Defence, namely paragraphs 75, 76, 77 and 80 and 81. Having considered those paragraphs and the remainder of the Defence, which is a very comprehensive document, I am satisfied that the Council has not pleaded an alleged variation or waiver.

165. In paragraph 15 above I have observed that the Council's position prior to trial, that the CS Document was not the Specification, was one likely to have a bearing upon any need to plead a subsequent departure from it having contractual force or something like that. Careful consideration of the Defence confirms as much. The Council's pleaded position was that no Specification was annexed to the Agreement for Lease or was considered necessary (paragraphs 25 to 28 and 74) and that was because the parties either expressly or tacitly decided that the design of the HABC would be by reference to the winning tender for the development (paragraphs 29, 30, 70, 74, 76 and 77). Accordingly, and to quote from paragraph 76:

> "….. [Kivells] contractually agreed that the build out of the Agri-Business Centre would be on the basis of the specification of the winning tender or something similar, the consideration for which agreement the entry was the entry into the [Agreement for Lease]."

166. That is not a pleading that the parties first agreed one thing and Kivells *later* agreed, or are to be taken to have agreed, something else. It instead involves the Council saying that the only agreement reached between them was one which, as it transpired from the terms of the tender, provided for the ASS. The pleaded consideration (said to have been given by each to the other through their entry into the Agreement for Lease in September 2011) obviously could not hold good as consideration for any *later* variation of their agreement. Paragraph 59 of the Defence says that a reed bed system became "contraindicated" in favour of a sewage water treatment plant, during the course of time between 2010 and 2012, but, on the Council's pleaded analysis of the contractual position, Kivells became *contractually committed* to that outcome by no later than 12 September 2011. I have decided that point against the Council. Its pleaded defence that Kivells' reliance upon the CS Document was "wholly arbitrary" (paragraph 45.6) and the gist of it is that until the tender process was worked through, so as to produce a specification for the wastewater treatment system, there was something of a carte blanche in that respect (and other design matters). In addressing Issues 1 to 3, I have sought to explain how this ignores the provisions of clauses 3.1, 3.5, 5.1 and 5.9 of the Agreement for Lease; each of them recognising that the CS Document was intended to underpin the design attributes of the HABC.

167. However, the Council has pleaded (at paragraphs 75 and 79 to 81 respectively) that Kivells are estopped from contending that the building of the ASS in place of a reed bed system was a breach of contract by it. An estoppel by convention or, alternatively, a promissory estoppel is relied upon to support the first and fourth declarations sought by the Counterclaim. Unlike the others, the pursuit of those declarations is not, at least at the level of principle, largely undermined by the Council's subsequent concession that the CS Document *was* annexed to the Agreement for Lease.

168. During counsel's oral submissions I was anxious to establish the relevant timeframe during which the basis for either estoppel against Kivells might have arisen. In particular, I was anxious to identify the timing of the relevant event or events by which it could be said that the Council had acted upon some previously shared and sufficiently communicated common assumption (for the purposes of an estoppel by convention) or upon a promise or assurance from Kivells (for the purposes of a promissory estoppel) so as to result in it being unconscionable or unjust for Kivells to assert a contractual entitlement to a reed bed system. I had in mind Kivells' position that they had not been consulted about the wastewater treatment system and, according to some of their witnesses were not aware that the Council were considering a mechanical system until the summer of 2012 (their Reply referred to a meeting on 7 August 2012 when the sewerage system was discussed). The reference to the summer of 2012 is to be compared with the date in September 2011 when, within days of the Agreement for Lease, the Council submitted the planning application referring to discharge to the mains sewer (with the possibility of an alternative reed bed system being buried away within the voluminous Environmental Statement, or such parts of it as were before the court). As I have already noted, Mr Waite's evidence was that a reed bed system simply did not feature as part of the planning application.

169. That timing therefore inevitably provokes the thought as to whether the Council in fact relied upon anything that Kivells said or did when deciding to promote a mechanical system. Or did the Council instead act independently of Kivells' view as if it held the carte blanche suggested by the terms of its Defence?

170. The essence of the estoppel defence for either category relied upon by the Council - whether the mutual assent as to the existing position between the parties, required to support an estoppel by convention, or something more promissory in nature as to what the Council might do regardless of the strict legal position – appears from paragraphs 67 to 69 of the Defence. Having referred to a tender process which opened on 31 August 2012, closed on 9 November 2012 and resulted in the acceptance of the tender from the contractors Morgan Sindall on 18 December 2012, those paragraphs went on:

> "67. Sindalls submitted their tender on the basis of a Water Treatment Plant and the [Council] accepted the Tender on the basis of the sewage and drainage being by way of Water Treatment Plant.
>
> 68. [Kivells] were at all material times aware of the Tender and the tendering process and on 7 August 2012 at a meeting in their offices, they gave their express consent to all matters pertaining to the build as had been concluded at that date which included all matters relating to treatment of sewage and the installation of a water treatment plant and as a result the [Council] put the Invitation to Treat requiring amongst other matters a sewage Water Treatment Plant.
>
> 69. Further [Kivells] were provided with all documentation relating to the Building Contract within the meaning of clause 4 of the Agreement before the contract was entered into and a copy of the Contract after it was entered into all such documentation showed a Water Treatment Plant was to be installed to treat sewage."

171. Kivells' Reply said that paragraph 67 was not admitted but irrelevant, that paragraph 68 was denied and paragraph 69 not admitted.

172. I have mentioned above the evidence of Mr Waite in support of the Council's position that the September 2011 application for planning permission proceeded on the basis that the foul water from the cattle market would be disposed of through a mechanical treatment plant. In a later section of his witness statement headed "Towards a Mechanical Drainage Solution" he explained how, by 23 January 2012 and following input from Sands, the idea of a reed bed system had been discounted. That is consistent with what Mr Quincey said in his email to Mr Purdue of 8 March 2012. Mr Waite also referred to the architects confirming to Mr Quincey on 1 June 2012 the proposal for discharge to the SWW pumping station and for an on-site treatment works.

173. In that section of this witness statement, which related to the period from late November 2011 to mid-June 2012, Mr Waite referred in the main to discussions between Council representatives and the professionals retained by it on the HABC project. His account of events began with a reference to Mr Quincey raising a concern with the architects as to whether a reed bed might freeze in winter (to which Grainge Architects responded, having taken advice from Cress Water Solutions, by saying that reed beds continued to work even in freezing conditions). However, in his account of that period, Mr Waite did refer to David Kivell having commissioned in early December 2011 a report from Biologic Design for a proposed wet system involving the planting of wetland marginal plants and trees. Biologic Design had been responsible for the system installed at Hereford market.

174. Mr Waite also referred to a meeting on 8 December 2011 at Grainge Architects, said by him to have been attended by Mr Kivell and Mr Bromell, for the purpose of discussing the range of possibilities for dealing with wastewater and he exhibited the agenda for that meeting (to be distributed in advance). The agenda did indeed mention a reed bed system, a "wet" system, a mechanical option, mains connection and other matters. However, quite apart from the fact that a reed bed system was still on the agenda at item 1, the more fundamental point about the Council's reliance upon the meeting - in support of its case that Kivells were content not to proceed with one - is that it seems that neither Mr Kivell nor Mr Bromell attended it.

175. Mr Waite's reliance upon the apparent attendance of those Kivells' members at that meeting reinforces the difficulty I have already mentioned above in any attempt to disentangle his 228 paragraphs (ignoring sub-paragraphs) for the purpose of distinguishing that which represents his own recollection from what is simply his subsequent analysis of contemporaneous documents and communications in which he had no involvement at the time. I have also already mentioned the huge amount of documentation exhibited by him. It seems that, on this particular point, Mr Waite had not taken sufficient account of what Ms Clements had said in email of 8 December 2011 (enclosing the Biologic Design material and forming part of his previous exhibit) in which she said: "*Please see the attached information from Biologic. We will discuss it at our meeting later today. David called yesterday and is unable to attend. He and Mark are both available for a conference call if needs be*."

176. During his cross-examination of Mr Waite, Mr de Waal noted that neither Mr Kivell nor Mr Bromell had been cross-examined about this meeting which Mr Waite had said they attended and that, had they been, each would have said he did not attend it. Mr Waite said he could not comment as he was not present at the meeting. If the circulation of the agenda can be relied upon in other respects then it seems that Mr Quincey and Mr Backaway and Mr Purdue (both of Sands) did attend the meeting but I have explained the circumstances in which none of them attended the trial to give evidence as the Council had earlier envisaged. Their witness summaries are not evidence but I note that, in any event, Mr Backaway and Mr Purdue had simply referred to a reminder to attend the meeting whereas the summary of Mr Quincey's contemplated evidence did not mention the meeting at all.

177. In the relevant section of Mr Waite's witness statement there is nothing to suggest that the Council's decision, reached by early June 2012 and reflected a month later in the terms of the "Design Summary" prepared by the architects for tender purposes (and indicating a mechanical water treatment plant with a discharge to the mains sewer), was attributable to Kivells' tacit or express approval to move away from a reed bed system. On the contrary, the clear impression given by his evidence is that the change was driven by the Council's concern that the project was over budget (at some £6.9m against a budget of £6m) even ignoring groundworks and drainage issues.

178. In their evidence, Mr Kivell, Mr Hicks and Mr Bromell each expressed themselves in terms of them having become aware in the summer of 2012 that the Council was considering the installation of a mechanical dirty water treatment system. The Council had not involved them in its discussions with the architects over options for the treatment of foul water and they did not see Grainge Architects "Design Summary" of July 2012, the tender documentation or Morgan Sindall's tender until disclosure in these proceedings. Mr Hicks said he believed he came to learn of that a mechanical plant

was under consideration through "*hearsay comments of contractors asked to look at the project*" and that Kivells had "*stumbled across*" the possibility. He said that, not having heard from Mr Quincey for some time, he was then disappointed to hear him talking about a mechanical system.

179. As I have noted above, the Council relies upon what is said to have been Kivells' express agreement to the installation of a mechanical system at a meeting on 7 August 2012 and therefore before invitations to tender were issued on 31 August 2012. Mr Waite described this as a "sign off" meeting at which Kivells' agreement on a range of topics was sought in order that the HABC could be progressed. Citing the judgment of Hildyard J in *Blindley Heath Investments v Bass* [2015] EWCA Civ 1023; [2017] Ch 389, [92], Mr Sahonte submitted that Kivells' failure to protest on 7 August that there was a binding agreement to construct a reed bed system was a manifestation of assent to the assumed way forward which "crossed the line" from mere quiescence on their part.

180. It is therefore necessary to examine the evidence relating to the meeting on 7 August 2012.

181. The meeting was held between Mr Hicks, Mr Kivell, Mr Bromell, Mr Quincey and Mr Pollontoine of the architects. It is clear that Mr Quincey must have mentioned a "sewage treatment plant" because in an email to Mr Quincey the following day (which accords with the manuscript notes made by him at the meeting) Mr Hicks said:

> "*Thank you for confirming the sewage treatment plant taking sewerage to the state where it can be entered into a ditch or the mains is still within the scheme, and at present it is not intended for the effluent to be deposited in the main sewer but a connection will be available should the same be necessary*."

182. That was the first of twelve numbered points which Mr Hicks signed off by saying he hoped it would help as an aide memoire. By an email in reply sent within 15 minutes, on 8 August 2012, Mr Quincey said it accorded with his own notes.

183. In his evidence on the 7 August meeting, Mr Hicks said: "*We had not agreed a mechanical system – they knew we regarded it as essential to avoid the operating cost of a mains sewer connection*." Mr Kivell recognised that Mr Quincey's focus was upon a sewage treatment plant but that he confirmed that it would take the effluent to the state where it could be discharged into a ditch and that, although a connection would be available, it was not intended to be deposited into the mains sewer. Mr Bromell's evidence was to the same effect.

184. There was no evidence from Mr Quincey to contradict what the Kivells' witness said and his email of 8 August indicates that a challenge by him would have been unlikely.

185. On my assessment of the evidence upon the 7 August meeting, it falls well short of establishing that Kivells had given their express consent (as the Council alleges) or even their implied consent to a mechanical treatment plant of the kind that had been described in the architects Design Summary prepared the previous month and which was incorporated in the Invitation to Tender issued at the end of August. The Design

Summary and the resulting tender documents clearly provided for a mechanical treatment plant which discharged into the mains sewer (meeting SWW's discharge requirements in that regard) and that is the reason why the Council is anxious to make good the estoppel defence. Yet the evidence clearly shows that Kivells thought the mains sewer connection would be there only as a backup.

186. In my summary of the material facts I have mentioned the meeting which Mr Quincey had with Mr Hicks and Mr Gregory, the solicitor, on 31 October 2012. In relation to foul water treatment, the minutes of the meeting record:

> "*There was a discussion about drainage requirements for the market. KH explained the use of mains drainage for market effluent would significantly increase the operating costs. There was a discussion in relation to the terms of the Agreement for Lease and the need for both parties to be satisfied that the planning permission was acceptable. The problem for the parties was that on-site drainage may increase costs in terms of drainage but off-site drainage would increase operating costs for Kivells. The parties understood each other's position on this*."

187. Mr Hicks was asked about the minutes of the meeting in cross-examination and the reference to the parties' conflicting financial interests so far as they concerned the relative cost of an on-site water treatment solution compared to off-site mains drainage. It is important to note that the minutes do not record any discussion of a particular *type* of on-site treatment plant, though Mr Hicks said in his evidence that, within weeks of the earlier August meeting, it was becoming apparent to Kivells that there was a problem when they regarded it as essential that the effluent should not discharge to the mains. However, in relation to the October meeting he said: "*I don't think that the Council knew what system they were going to get at this stage*." That reveals a lot as to whether Kivells can be taken to have been clearly aware, even at that stage, that a decision had been taken to install a mechanical treatment plant which discharged into the mains sewer.

188. The evidence shows the Council, its architects and civil engineers had for some months been moving firmly towards such a decision – compare Mr Waite's "Towards a Mechanical Drainage Solution" section of narrative – but that Kivells were unaware of that.

189. On this aspect of the dispute between the parties I should also mention a point relied upon by the Council in suggesting that Kivells were fully aware of how the proposal in relation to foul water treatment had evolved from the idea of a reed bed to the proposal for a mechanical treatment plant. This was based upon the fact that Kivells had themselves engaged the services of Trewin Design, architects, to advise them and to engage with other professionals in the project. To quote from Mr Waite's paragraph 23, "[*I]t is accordingly inconceivable to me that Kivells were unaware of the evolution of the Project as a whole or any part of it*."

190. There is, however, nothing in this point. Documents added to the trial bundle before the last day of trial (including an application made through Morgan Sindall for a non-material amendment to the planning permission) and the evidence of Mr Kivell make it clear that Trewin Design were only concerned with an enlargement of the office

building and alterations to the roof of the café building. In cross-examination Mr Waite accepted that his paragraph 23 should be corrected so to refer to Trewin Design being involved on behalf of Kivells only in relation to the design of the offices at the HABC. His revised assessment of the awareness to be attributed to Kivells as a result of the involvement of Trewin Design is plainly the correct one and it is irrelevant to the reed bed issue.

191. The distraction created by the Council over the involvement of Trewin Design did strike me as hinting at a sense of desperation on its part to find *something* that might amount to its contracting counterparty's endorsement of its departure from what it had agreed to do (at a potential cost of £650,000).

192. Of course, the Council's estoppel arguments are not as vulnerable (as its position on Issues 1 to 3 became) to the point that it has failed to take proper heed of the terms it signed up to in September 2011. Nevertheless, in circumstances where those terms (clauses 3.5 and 5.9) expressly anticipated the possibility of such a departure - albeit one dictated by the giver or withholder of a "Necessary Consent" - and for Kivells then to be able to communicate a view about its potential impact on the operation of the cattle market, the absence of evidence in support of the alleged estoppels is all the more striking. Despite its extent, the documentation exhibited to Mr Waite's witness statement did not contain material to support the conventional dealing or representation which is necessary to get the Council home on its argument. As Mr de Waal QC noted in his closing submissions, Mr Waite acknowledged in the witness box that there was no specific email or other communication from Kivells saying that they did not want a reed bed system.

193. They certainly did not want a wastewater treatment system which discharged into the mains sewer and the evidence of the meetings in August and October 2012 falls a long way short of establishing either express or tacit approval of one. On my assessment of the evidence generally, Mr Bromell summed things up correctly when (speaking of the position in which the parties found themselves at the end of the following year) he said in his witness statement:

> *"By the end of 2013, Kevin [Hicks] was still in discussion with [the Council] over our concerns in respect of the costs of the mechanical dirty water system. We felt strongly that [the Council] should bear some of the costs given that we had negotiated the terms of the Agreement for Surrender and New Lease on the belief we would be getting a reed bed system and the reduced costs associated with that system and it was [the Council] that had unilaterally decided to change to a mechanical system with a mains sewer connection."*

194. That evidence is fully supported by the terms of an email which Mr Hicks sent to Mr Waite on 18 December 2013, following a discussion between them that morning, and the relevant part of which warrants being set out in full:

> *"<u>Sewerage Provision for new market</u>*
>
> *As discussed, the current lease agreement envisages a sustainable reed bed system for sewerage discharge from the livestock market. This is now being replaced by a mechanical system of sewage treatment within the curtilage and then discharged to the mains sewer.*

> *In order to inform a further negotiation between Torridge District Council and Kivells Ltd as to the lease cost implications a cost comparison will be constructed for the original reed bed option and the currently proposed sewage treatment unit with discharge to the mains sewer. The worked up cost will reflect annual maintenance costs for the reed bed and annual servicing and discharge costs for the scheme as currently devised. Similarly annualised costs for reed bed renewal and sewage treatment plant renewal will also be considered.*
>
> *With regard to discharge costs for the proposed scheme, it is understood South West Water will not be charging on the basis of volume providing same does not exceed 4 litres per second which is within the capabilities of the proposed sewage treatment system but will be charging on the basis of toxicity grade discharge following treatment."*

195. Had I formed a different view of the evidence in finding that Kivells had, by their words or conduct, given the Council cause to conclude that they were content to proceed with a mechanical system then it would still have been necessary to consider the question of the Council's detrimental reliance upon any assumption or representation to that effect. Whether or not the Council could have claimed to have been materially influenced in how it then proceeded with the design of the HABC, so as to make it unconscionable or inequitable for Kivells to resort to the language of the CS Document, would rest upon an analysis of the timing of the allegedly otherwise detrimental step. Mr Sahonte said that, by their action at the meeting on 7 August 2012, Kivells gave the Council "the green light" to press ahead, without them standing on their legal rights, and the Council took them at their word. I have already explained why I reject the suggestion that Kivells gave the Council the go-ahead for the kind of system described in the Invitation to Tender but it necessary to test the notion of the Council's detrimental reliance.

196. In this regard, I have already noted that within days of the Agreement for Lease being concluded in September 2011 the Council applied for planning permission regardless of the terms of the Specification (so far as any reed bed system was concerned) that it had just agreed with Kivells. The evidence is also clear in showing that on 15 May 2012 the Council signed the contract for the sale of old cattle market in Holsworthy to Cavanna Homes; an event which necessarily operated to place a real practical limitation upon Kivells' ability to pull out of the transaction as clause 3.5 contemplated they might.

197. Yet, as I have also already mentioned, the Council's move towards a mechanical treatment solution appears to have crystallised by early June 2012 at the latest. Mr Jenkin (formerly of the Council) and Mr Spear of Morgan Sindall each relied in their evidence upon an extract from the "Employer's Requirements" forming part of the Invitation to Tender. It appears that these were formalised by 1 May 2012 and the material terms of it are very revealing:

> "*It is proposed to dispose of sewage to the public sewerage system on the nearby industrial estate. On-site options that would avoid connection to the public sewerage system, such as septic tanks and reed beds have been investigated. However, these have been discounted due to limiting environmental issues and EA concern. Until such time as the site is connected to the public sewerage system or*

the treatment plant is operational, it will be necessary to tanker waste from the site."

198. Kivells had not been consulted about this. Nor were they aware of the terms of Grainge Architect's Design Summary – providing for an on-site treatment plant and balancing tank in order to meet SWW's requirements as to COD, MLSS and rate of flow through the sewer to its pumping station – which had also been prepared before the August meeting. Mr Spear of Morgan Sindall became involved with the HABC project in July 2012. His evidence was that a reed bed system was "*simply not on our radar*." Mr Kellett (who only visited the site once, in 2018) also said that there was no question of a reed bed system as far as Morgan Sindall were concerned.

199. In the absence of any encouragement by Kivells to do so before the date of the August meeting, these facts support the view that the Council's decision then to proceed with an Invitation to Tender based on that Design Summary was influenced only by its own budgetary considerations and was taken because of the Council's perception of the contractual freedom it enjoyed in that regard. It is a freedom which it has continued to assert down to the date of this judgment, as expressed in Mr Sahonte's closing submissions. It is also clear from the evidence and contemporaneous documentation in relation to the meetings on 7 August 2012 and 31 October 2012 that Mr Quincey, on behalf of the Council, cannot have been under doubt that Kivells remained anxious to avoid a mains sewer connection because of its consequential operating cost. On the contrary, on the later occasion he is recorded in the solicitor's minutes of the meeting as having understood their position. He was then reminded of it again, over a year later, by Mr Hicks' email of 18 December 2013.

200. I therefore conclude that the Council decided to act without any proper regard to Kivells' clearly stated position, made known in 2011 before the entry into the Agreement for Lease with its identification of the rent to be payable for the HABC, that they wished to avoid the operating costs that a discharge to the mains sewer would entail. It proceeded as it did as a result of its own internal decision-making (following input from the professionals engaged on the project) and what it clearly regarded as its freedom to change the design; and not by reference to anything that Kivells said or did, or failed to say.

201. Mr de Waal QC submitted that the facts showed that the only unconscionable behaviour was that demonstrated by the Council rather than Kivells. He said they were kept in the dark about the Council's decision to move to a mechanical system for wastewater treatment. This was in contrast to the detailed input which Mr Kivell and Mr Hicks said they had over the design of the pennage and the offices at the new market. The evidence of Mr Kivell and Mr Bromell, which I accept, was that they had no real involvement with Morgan Sindall until Kivells had moved into the HABC and were therefore not privy to the selection of sub-contractors or other aspects of its specification.

202. For example, and on my assessment of the evidence, Kivells were unaware of the terms of the planning application, referring to discharge to the mains sewer, which was made within days of them having agreed in principle to the terms of the new lease (containing the rent provision later incorporated in the Lease as executed). It was only in the summer of 2012 that Kivells discovered that the Council was considering a mechanical

system by which time they were substantially committed to taking the lease of the HABC. The Council did not involve them in the decision to discount the idea of a reed bed system which its Employer's Requirements indicates had already been taken. I accept the evidence of Kivells that they did not see the Invitation to Tender until disclosure in these proceedings.

203. I note that, in his evidence about the August 2012 meeting, Mr Hicks said: "*by this stage we were committed – we were surrendering our lease [of the old market]*." Certainly, the Council's entry into the agreement to sell to Cavanna Homes in mid-May 2012, before the "Planning Condition" in the Agreement for Lease had even been satisfied, would have undermined Kivells' right to pull out of taking the new lease (as clauses 3.5 and 3.8 envisaged they might) at least so far as any idea of returning to the old market was concerned.

204. I also accept the evidence of Mr Bromell that, after the visit to Raglan market in January 2014, he pressed Morgan Sindall for further information about the proposed mechanical system. Mr Jenkin had said it would not be identical to that at Raglan but something like it. Before they made that visit, Mr Kivell had spoken to the auctioneer at Raglan and been told they were experiencing a lot of problems with their system so that wastewater was being taken away by tanker. He would therefore have wanted to know what kind of mechanical system was now proposed for the HABC.

205. I return below, in the context of addressing Issues 10 to 14, to the exchanges between Mr Hicks and Mr Waite in 2014 concerning the additional operating costs of operating a mechanical system. They culminated in Foot Anstey, Kivells' solicitors, writing to Mr Waite on 8 September 2014 saying that the Council had unilaterally decided to depart from the Specification with the result that Kivells would have to incur significant additional sewerage costs. Their letter stated: "*Notwithstanding this dispute, the Tenant has agreed to complete the lease without prejudice it may have against the Landlord under the Agreement."* I am satisfied that Kivells had not done anything before that date to undermine this complaint or the reservation of their rights.

206. In my judgment, the submission that it was the Council who behaved unconscionably is essentially a sound one. It is a further reason why the Council cannot make good its estoppel defences. The failure to keep Kivells informed of its decisions, coupled with the fact that Foot Anstey's letter was written after the Council had refused to reconsider the level of rent to be payable by Kivells under the Lease, is a reason why any defence based upon a variation or waiver would (if pleaded) have also failed.

207. I should note that the Council also argued that there would not have been the space for a reed bed system. This appears to be a point made in hindsight. No thought would have been given to it, or to the means of overcoming it, when it applied for planning permission because no reed bed was proposed. In my judgment there is nothing in the point.

208. It must be borne in mind that the footprint of the HABC, duly leased to Kivells, formed one part of the overall land transferred to the Council in May 2013. The HABC site occupied approximately 14 acres but the Council and Kivells were jointly interested in the surrounding "commercial land" of approximately 20 acres. Kivells argued that a reed bed system could have been sited on land either side of the HABC and Mr Hicks said in testimony that they would have foregone their share in the surrounding land to

place it there. Mr Kivell said that, if necessary, they could have moved the position of buildings on the HABC or used the field set aside for lairage in order to accommodate a reed bed of the dimensions identified in the ARM proposal. Mr Spear of Morgan Sindall, in his cross examination, appeared to recognise that part of the commercial land might have been used for a reed bed, though he said the idea would have to have been thought through and pumping of wastewater might have been required.

209. The short point, however, is that none of this was discussed at the time because the Council decided of its own accord not to proceed with a reed bed system. Mr Waite's last answer in cross-examination was to say "*as far as we were concerned, the reed bed was not a viable option*."

Issues 8 and 9

210. The fundamental question to be decided under these issues is whether or not the ASS is an "Inherent Defect" within the meaning of clause 26.5 of the Lease. Kivells allege it is of "defective design".

211. Their principal but by no means only complaint is that the aeration tank is far too large. However, it would be unwise to present that point as a monolithic one when proper consideration of it requires the court to address the variables that bear upon the volume and strength of washdown passing through the ASS as a whole. In my summary of the facts above I have mentioned the list of problems with the system that Tom Downing had identified in mid-October 2014. The tenth matter identified by him was:

> "*We have been told by south west water that the system is not working correctly, there is not enough mixed liquor (slurry) in the system so the dirty water is not being treated correctly, SWW has taken samples of the dirty water system."*

212. That early complaint really goes to the essence of the disagreement between the experts in this case. Mr Hawes said the aeration tank is "*vastly oversized*" so that the quality of the final effluent is such that heavy sewerage charges to SWW are being incurred to SWW. On the other hand, Dr Davies laid heavy emphasis upon the fact that the ASS had been built in accordance with the design parameters provided to CEP. His stance was therefore closely allied to the Council's pleaded position that the true interpretation of the Agreement for Lease was that (in the absence of a "Detailed Specification") what would be built, and provide the reference point for clause 26.5, was "*the specification produced at the end of the Tender process*" (per paragraph 70.3 of the Defence)

213. Mr Sahonte submitted that this principal matter of complaint rested upon an allegation that the design process had failed to identify a *minimum* flow of wastewater from the market and that, he submitted, had not been pleaded. He further submitted that that allegation had first surfaced in Mr de Waal's Opening Note. As a consequence, he said, there would have been lay and expert evidence directed to the point when the position was that the experts had not addressed it.

214. It is obviously troubling to hear this type of submission, as to what is properly before the court, at the conclusion of a 7 day trial, when the making of it suggests that something might have gone seriously awry in the management of the case before and during the trial in terms of identification of issues. Although Mr Sahonte had said in his opening submissions that the "minimum flow" point should have been the subject matter of a separate and distinct allegation, his closing submissions were more expansive on the point that the complaint about the aeration tank "*was not pleaded on that basis*".

215. Mr Sahonte's compendious Closing Note (running to 43 pages, including its two appendices, and containing many footnoted cross-references) was only provided to the Court and to Mr de Waal QC on the final day of trial. The first thing Mr de Waal said to me in his oral closing was that he had not had the opportunity to read it. Accordingly, I did not come to have the benefit of any submissions from him on this particular aspect of the Council's argument. In any event, the half day allowed to him for his closing submissions would not have enabled him to address every point in the Closing Note. It has since taken me considerably longer than that to read and digest it.

216. Having since reflected upon it, I have reached the conclusion that the Council's invitation not to act upon the minimum flow point should be rejected. Like other aspects of the Council's case, I believe that it has come to be made because the Council has invested so heavily in its line of defence that, whatever its potential failings, the ASS was built in accordance with the tender information provided to Morgan Sindall and CEP; and that Kivells should be taken to have signed up to that specification (either by the formal contractual terms agreed with the Council or through the operation of an estoppel). My conclusion is reinforced by the relative brevity with which the Council addressed the alleged defects in its Defence when compared to its exegesis on contract-related points.

217. In relation to the size of the aeration tank, Kivells' pleaded allegation was that:

> "*the aeration tank is not fit for purpose in that at 1,000m³ it is too large for the Market's requirements by a factor of ten, meaning that the effluent is not sufficiently broken down. This allows wastewater to enter the mains sewer vested in South West Water at a strength greater than would be achieved by a correctly designed system*."

218. The allegation is therefore one that, as designed, the aeration tank is much too large for the market's requirements. It is difficult to see what the underlying complaint by Kivells can be if it is not that the tank is too large for the amount (and polluting strength) of liquid going into it.

219. I note that paragraph 16 of the Particulars of Claim (by which I mean all of the alleged defects pleaded in it) was addressed in two short paragraphs (86 and 87) in the Defence. They denied that the ASS was unreliable and defective or that the alleged defects "*amount to inherent defect as a matter of law or as contractually defined in paragraph 26.5 of the Agreement* (sic – the Particulars of Claim correctly referred to the Lease)". Kivells sought to draw the Council on this exiguousness. By its Reply to a Part 18 Request dated 28 March 2018 (which had sought its reasons for the denial and

clarifications as to whether an alternative case was put forward) the Council said, in relation to the size of the aeration tank: "*It is denied that the Aeration Tank even if it were too large for the task, means that it is not fit for purpose and/or is not properly treating foul water to produce a discharge to a tolerance to which it was designed and correctly operated to. It is denied that the sizing of the said tank is a defect in fact or as a matter of law*." The Council's reference to "the task" can only be a reference to the task of dealing with the amount and strength of the wastewater produced by the cattle market at the HABC.

220. Mr Sahonte was in my view also wrong to submit that the expert evidence did not address the issue of how much wastewater had to get into the aeration tank in order that it might function properly. Mr Hawes' Report of 21 December 2018 contained detailed calculations based on an average daily flow rate of 20.3m³ per day, leading to his conclusion that the resulting F/M Ratio (of 0.006) indicated that "*the actual loading is 1/10th of the minimum recommended F/M value*" and signified that the ASS was "*extremely organically underloaded*". In his Report of December 2018, Dr Davies said the ASS was designed to "*provide for future capacity for increased business and operations at the market*" and by reference to "*the high level of Total COD present in the washwater and the probability of receiving shock*". Section 7 of his Report (and his then Table 1 which was later replaced by Table 8 in the Supplemental Report) addressed his process modelling results based upon notional daily flows (according to the number of markets held per week) and also that relied upon by Mr Hawes. The experts' Joint Statement recorded their disagreement upon the tank being ten times too large but noted that they did agree "*that the aeration tank has a capacity to treat flows far in excess of the long-term average flows Mr Hawes refers to*."

221. The Council's professed surprise that Kivells' complaint about the ASS extends to them saying the design failed to take account of the need for a minimum flow into the aeration tank simply does not withstand scrutiny.

222. Mr de Waal QC made submissions as to how this alleged design defect came about. He began by referring to the Report on options for foul water disposal in February 2012 prepared by Sands. I note that Appendix A to that Report comprised some email exchanges between SWW and Pell Frischmann (the structural engineers) in which SWW confirmed that, provided the foul water flows were restricted by attenuation to 1.4l/s, they could be put into the sewerage network via SWW's pumping station without the need to upgrade the network. Pell Frischmann had responded to SWW's question about predicted outflow by looking at the water usage rates at the existing cattle market. They had concluded that the potential *weekly* water use at the new market would be approximately 120m³ and "*since the cattle market is only generally open for 1 day a week, we would anticipate the volume to be generated over a period of 10 hrs giving a maximum average flow of 3.3l/s. If we were to provide attenuation for discharge over a 24 hr period (an option we would consider if required), flows could potentially be reduced to an average 1.4l/s*".

223. Mr de Waal also drew my attention to an email Mr Purdue (of Sands) sent to the architects on 7 March 2012 which referred to total daily discharge from the existing cattle market being 72m³. He said this was consistent with what Mr Bromell had said in an earlier email of 11 March 2011 to Pell Frischmann (and copied to Mr Quincey and the architects). Mr Bromell had said that 80m³ was a good estimate for market day

and in weeks where two markets were held "*the weekly quantity will be higher, however during the quieter months of Dec and Jan usage would be much reduced*."

224. The ARM proposal of December 2010, which of course was addressing a reed bed system that would presumably capture more rainfall than open tanks, had referred to an average daily flow comprising 20m³ of washdown plus 5m³ of urine and 75m³ of rainwater; and clearly the first two would only be produced on market days. The report which Mr Kivell obtained from Biologic Design in December 2011 (in relation to a wetland system) referred to "*100m³ per market day (200m³ per week @ approximately 2,000 BOD).*" The weekly trade effluent cost of £1,532 which Mr Purdue had identified in his emails of August 2012 was based upon two markets a week, each using 100m³ of washdown water. When the Employers Requirements of the Council were revised in June 2013 to take account of the contractor's proposals, including the proposal from CEP, reference was made (in the context of need for water storage and abstraction) to Kivells having provided information that they currently used 100m³ each market day in washing down.

225. In November 2011 Mr Purdue completed an application to SWW for consent to discharge into the public sewer which referred to a single market producing 100m³ of washdown water (and to two markets a week) with a maximum discharge during any 24 hours of 121m³. The Design Summary prepared by Grainge Architects in July 2012 referred to a "*total daily discharge of 80m³*" being permitted (at the maxim rate of 1.4l/s).

226. For reasons which remain unclear, and were always likely to remain so in the absence of evidence from Mr Quincey and Mr Purdue, it seems that what then happened was that the Council and at least some of its professional advisers began to operate upon an assumption that there would be more than one or perhaps two markets each week and that each market would produce a greater quantity of foul water than previously envisaged.

227. When CEP came to submit their design of the ASS to Morgan Sindall in June 2013 their tender identified the treatment parameters as follows:

> "*<u>The system is designed for the following loadings</u>*
>
> *The target figure for Discharge BOD is less than 1000 mg/lt*
>
> *The target figure for Discharge SS is less than 500 mg/lt*
>
> *Ammonia or N not provided*
>
> *Note: Client specified levels for discharge 1500mg/l COD and 750MG/l total solids*
>
> *Treatment Parameters*
>
> 1) *Unit of measurement – Metric litres and Cubic metres*
>
> 2) *Volume to reception tank up to 160M3 per day*
>
> 3) *No. of markets per week up to three*

4) *Flow pattern varying amounts and times not exceeding 50M3 /hr*

5) *COD – Information not provided*

Design amount used 6000 mg/l

6) *BOD – Information not provided*

Assume 2000 mg/l

7) *SS – Information not provided*

Assumed 2000 mg/l

8) *N information not provided*

9) *Electricity Supply 415 V Amps as required*

10) *Existing Facilities – none*."

228. Ms Johnston-King of CEP said in her evidence that her father had prepared the tender to Morgan Sindall. She said she did not know whether the volume figure of 160m³ "*had been given to us or was just an industry standard*." She said it would not have come from anyone but Morgan Sindall. Whether it originally came from them or from Simon Johnston of CEP, it seems clear that Morgan Sindall were content to proceed on the basis that it was a reflection of the likely foul water output from the HABC. It is not clear where the notion of "*up to 3 markets a week*" came from but there is no evidence to indicate the source was Kivells.

229. In an email communication between them on 12 July 2013 Mr Spear and Adrian Jones, each of Morgan Sindall, exchanged some thoughts about the proposal from CEP. Mr Jones said: "*The flow of cattle slurry is very variable. Cattle markets are held three times a week. It is stated that the basis of the design is 160m³/day of slurry. Assuming a 4hr market period this equates to 40m³/hr*." He went on to refer to the balance tank being used to even out the forward feed "*from 3 markets divided by 7 days*" so as to avoid the bacterial culture being "*in feast and famine mode*". He also confirmed that rainwater and storm water runoff would not enter the system separately though harvested rainwater would be used in the washing down process.

230. In a much later email of 19 March 2014, Mr Waite also commented on the design parameters used by CEP. He referred to the difference between the target discharge figures for COD and MLSS and the "*Client specified levels of for discharge*" and, referring to another (unidentified) email, said *"…the discharge at the current market is Kivells are only discharging 661mg/COD and 120mg/TSS via settlement tanks? Hard to believe ….. but I have no other data*."

231. These comments, before the HABC became operational, upon the treatment parameters proposed by CEP might have been thought to provoke the need to consult further with Kivells as to the likely quantity of foul water entering the system and the contemplated number (and type) of cattle markets producing it. But that was not done.

232. In his evidence, Mr Spear said he did not know how Morgan Sindall had got to the figure of 160m³ per day. He confirmed that, in circumstances where his client was the Council, he would not have expected to take instructions from Kivells and, although he had the flexibility to discuss pennage with them, he had not discussed the sewerage system (either the originally contemplated dissolved air flotation system or the ASS).

233. I have already mentioned that the Council's expert, Dr Davies, approached this aspect of the ASS's design by referring to its ability to provide future capacity for increased business and operations at the market.

234. The difficulty with that approach is that it ignores Kivells' actual operations. The Council's decision to proceed with a mechanical wastewater system without reference to Kivells' needs (and in a manner dismissive of Kivells' concerns about operating costs) not only permeates through to my decision on Issues 1 to 3 but also influences the outcome on this particular aspect of Issues 8 and 9.

235. In my judgment the size of the aeration tank (at 1000m³) within the ASS is clearly an inherent defect within the meaning of clause 26.5 of the Lease because it is far too large for Kivells' actual needs. In paragraphs 237 to 255 below I expand upon this conclusion and that basic reason which supports it.

236. The first point to note is the obvious one that the concept of a "defective design" must be tested by reference to the Lease. It is *the Lease* (and the relevant permitted use of the HABC as a livestock market) and not the terms of the Council's Invitation to Tender or what CEP proposed in response to Morgan Sindall's onward invitation to them which must govern this issue between the parties to it; all the more so given the Council's lack of engagement with Kivells in relation to the design specification which emerged from those other two documents. It is, of course, Kivells' case that what has resulted from the two tenders is the installation of a fundamentally defective fixture at the demised premises. I make this elementary point because Dr Davies appeared to rely heavily upon the fact that the ASS met the requirements of the tender documentation.

237. With that point in mind, it can be seen that the livestock markets held by Kivells are producing nothing like the volume of foul water which emerged in CEP's treatment parameters: 160m³ per day on up to 3 market days. So much is clear from the evidence of the Kivells' witnesses which I accept as reliable and which was not seriously challenged on this aspect.

238. Mr Kivell explained in evidence that on average there are 1.47 livestock markets a week at the HABC, by which he meant that "*there are two markets in just under a fortnight*". He explained that the main cattle market is held on a Wednesday, at which cattle and sheep are sold, but there are less frequent smallholder markets for the sale of pigs. He said the amount of effluent being produced at the Wednesday market was in the region of 100m³. When Mr Sahonte took him to an email from Tom Downing to Mr Jenkin in September 2014, referring to three livestock markets being held in the forthcoming week, Mr Kivell said "*I don't think we have had 3 markets in a week since. This was our honeymoon period. After the opening of the HABC everyone wanted to come*." Mr Bromell provided further analysis in his evidence. He said that there had been 359 livestock markets in the 234 weeks since September 2014 and that the meter readings provided by SWW indicated the use of an average of 98.42m³. He said this was

consistent with the numbers for the old market (a statement corroborated by what was attributed to Kivells in the Council's Employer Requirements of June 2013).

239. I refer below to the polluting strength of the market washdown in addressing Dr Davies's evidence. On a more general level, Mr Hicks said in his evidence that, when, in the summer of 2012, he "*stumbled across*" the fact that the Council were contemplating a mechanical system he was disappointed "*as I had a liking for a reed bed. I thought, perhaps naively, our water isn't that "dirty" – it is just a bulk which appears once a week*."

240. Although Dr Davies sought to defend this aspect of the ASS design, my assessment of his evidence is that the matters he relied upon in support of that defence only served to highlight that they could not be applied to Kivells' operations at the HABC. I now explain the reasons for reaching that view.

241. Dr Davies said the ASS had been designed to operate within the F/M Ratio parameters identified by Metcalf & Eddy (see paragraph 109 above) and was capable of doing so. I asked Dr Davies whether he would have recommended building the ASS at the HABC if the F/M Ratio was outside those parameters (either above or below the respective outliers). He answered that he would not have done so. This is consistent with his earlier answer, when giving evidence concurrently with Mr Hawes, that if it could be guaranteed that there was no more than one market a week at the HABC then a smaller aeration tank might have been built; though he said he would have to re-run his calculations on the basis of any notionally smaller one by reference to the effluent qualify standards sought by the client. Dr Davies also told me that he had recommended the Bio-Bubble system (see paragraphs 106 and 107 above) to other clients.

242. In my judgment, the factual and expert evidence supports the conclusion that the wastewater output at the HABC is not capable of sustaining an F/M Ratio required for a proper functioning of the ASS.

243. Dr Davies said that Mr Hawes' figure of 20.3m³ of average daily flow was unrealistic and that the discharge from the balance tank to the aeration tank would be greater than that. But it was clear from his answers on this point that they relied heavily upon the treatment parameters identified by CEP Projects in June 2013. He said that if there were three markets a week, each producing 160m³ of washdown, then that equated to around 77m³ per day over a full week. It was largely by reference to the specification identified by the subcontractor that Dr Davies resisted the suggestion that the ASS was not fit for purpose, though his first Report also pointed to an email from Mr Downing of Kivells to Mr Spear in September 2014 in which he referred to about 132m³ being discharged at each market held that month. His Supplemental Report also referred to the terms of Trade Effluent Consent granted by SWW on October 2014 which referred to a maximum 150m³ per day. Dr Davies said that it was also unrealistic for Mr Hawes to even out the flow for the purposes of producing an average daily figure when the actual flow from the balance tank to the aeration tank would be much greater.

244. Mr Hawes' Report explained that his average daily flow figure of 20.3m³ had been calculated by reference to the SWW trade effluent charges which had identified monthly volumes of discharge into the sewer (with charges based on the Mogden formula). Although Dr Davies was right to point out that the figures were for the period between October 2014 and March 2016 and more recent figures had not been produced,

when they must be available, Mr Hawes' average flow figure is much closer to what the factual evidence from Kivells shows to be the amount of wastewater generated at the average 1.47 markets a week.

245. In my judgment, Mr Hawes' evidence is more reliable and closer to the reality of Kivells' operation of the market under the Lease than Dr Davies' equivalent daily figures of 30m³, 60m³ or 80m³, according to whether there are one, two or three markets a week. On the latter analysis, the weekly flow would be between 210m³ and 560m³ a week, and even the lower of the figures is far in excess of the volume indicated by Mr Kivell's and Mr Bromell's evidence. I also accept Mr Hawes' evidence that it is appropriate to assess the operation of the system by reference to average daily flows when the wastewater has to be treated on market days and non-market days and the purpose of the balance tank is to even the load and, as he put it, to "*feed it out at a nice easy flow.*" Otherwise, the aeration tank would be at risk of the "feast or famine" scenario which Mr Jones of Morgan Sindall had contemplated in July 2013.

246. The experts also disagreed upon the strength of the foul water going into the aeration tank. They each criticised each other's sampling methods. Dr Davies said that, again, Mr Hawes was relying upon historic samples (from June and July 2015 and May 2016) and they were only snapshots. Mr Hawes, on the other hand, said that Dr Davies had taken his samples at the point of vehicle washdown (at the inlet to the reception pit) where the raw washwater would necessarily be strong and, as Dr Davies accepted, would contain a significant element of manure and urine. He pointed out that, even so, the BOD measurement of Dr Davies' sample was 1386 mg/l, which was significantly less than the 2000 mg/l identified in CEP's treatment parameters and the 2400mg/l specified in the Employer's Requirements. Mr Hawes said that, by contrast, his own samples were taken from the balance tank which was sensible given that he said that tank acts as "*a giant composite sampler*". The COD readings of Mr Hawes' samples showed measurements for COD (which I have noted is usually taken to be twice the measurement of BOD) to be 1951 mg/l and 827 mg/l. That is to be compared with COD 6000 mg/l specified in the Employer's Requirements and assumed by CEP.

247. As with the volume of wastewater being produced on a weekly or average daily basis, the disagreement between the experts can be transposed to Dr Davies' reworked table of "Process Modelling Results": Table 8 in his Supplemental Report. And, as with the issue over volume, the key to choosing between his analysis and the rival one presented in Mr Hawes' alternative table (in his "Narrative") lies in a proper assessment of the factual evidence.

248. I say that because it is clear from Dr Davies' Table 8 (and Tables 1 and 6) that he makes a number of assumptions about the diluted strength of the straw, manure and urine washed down during a market day. However, the evidence from Mr Kivell, given by reference to the market's records for the years 2013 to 2018 (and the first four months of 2019) show that the assumptions made by Dr Davies about livestock numbers, in his Table 5, were inaccurate. Mr Kivell explained that the average number of cattle sold at each weekly market was 317, not 550. He also explained that calves and stirks (heifers of between 4 months and a year) were not treated as "cattle", which Dr Davies had identified as weighing between 300kg and 400kg (for the purpose of his manure calculations in Table 1) and weighed anything between 40kg and 100kg. He said that the average figure for sheep (which could range from baby lambs to breeding ewes) was 1215 per market, not 1500. Mr Kivell said Dr Davies was wrong to assume an

average weekly figure for pigs of 160 when the maximum sold at the monthly smallholders market was 200.

249. There were three further assumptions made by Dr Davies which were challenged by Mr Kivell in evidence that I found to be credible and reliable. The first was the assumption that the livestock would be at the HABC for market day for an average 12 hour stay. Mr Kivell said the majority of the calves were at market between 8am and 10am and almost all were gone by 1pm. He said the majority of the cattle were there between 8am and 11am and almost all of them gone by 2pm. The sheep are sold between 7am and 10am and almost all of them taken away by 2pm. He explained that, although Kivells offered lairage, they tried to discourage it and on average only about 30 to 40 cattle would arrive for market the afternoon or evening before, or during the night.

250. The second assumption made by Dr Davies was reflected in his Table 6 which referred to 50% of solid matter being removed before washdown and taken away to the midden. It followed that the other 50% would be washed down into the ASS. However, Mr Kivell said in his evidence that this underestimated the efficiency with which the Bobcat deployed at the market could move between the folded back gates of pens so as to clear them of manure and straw and carry the load to two waiting silage trailers. On this point, Mr Hawes said the highest MLSS reading in the samples taken by him in 2015 and 2016 was 1750 mg/l. Mr Hawes's supplemental Narrative explained how, applying Dr Davies' other assumptions as to how many animals produced how much manure over how much time, that reading was consistent with the conclusion that 86% of manure was taken away and 14% would remain for washing down. Dr Davies agreed with Mr Hawes' process of reasoning.

251. For completeness, I should also add that, as he recognised in cross-examination, Dr Davies' Table 6 failed to carry through with complete accuracy the assumed weight of cattle manure washed down into the ASS (after 50% of it had been assumed to have been taken away to the midden) as it predicated that 40kg of manure per head of cattle would remain, for washdown purposes, rather than what on those assumptions would be a true calculation of 21.75kg.

252. The last assumption made by Dr Davies in his Supplemental Report was that the manure output of cattle being sold at the HABC could (for the purposes of the estimates as to the composition of wastewater reflected in his Table 1) be discerned from the material exhibited at its Appendix 1. That appendix comprised a paper published in 2015 in Manitoba on the composition of manure. But in my judgment Mr Kivell was right to question whether the output of cattle being temporarily held at market could be compared with those grazing on the plains of North America.

253. In my judgment, these are good reasons for rejecting Dr Davies' conclusion (expressed in his Table 8) that a daily flow of 30m³ would produce an F/M Ratio of 0.056 and one at Mr Hawes' 20.3m³ per day would produce an F/M Ratio of 0.022.

254. I have already concluded that Metcalf & Eddy (5th ed) identifies the range of F/M Ratio required for the proper functioning of the ASS at 0.04 to 0.01: see paragraph 108 above. It follows that, even if an F/M Ratio of 0.022 had been the correct calculation, I would reject Dr Davies' contention this was "*just outside the common range (0.03) for extended aeration systems*". I have already explained why I believe that lower ratio is one that relates to the advanced aeration system promoted by Bio-Bubble Technologies.

However, a more accurate figure for the actual F/M ratio of Kivells' market wastewater is likely to be Mr Hawes' alternative F/M ratio of 0.003. And, as Mr de Waal submitted, if the correct average daily flow is not 20.3m³ but 14m³ (98m³ divided by 7 days) then the ratio falls to 0.002. Whatever the actual F/M ratio proves to be on a week-by-week basis, the evidence clearly points to it being well below the lower end of the range identified by Metcalf & Eddy.

255. For the reasons summarised above I therefore find that Kivells have established that the size of the aeration tank constitutes an inherent defect within the meaning of clause 26.5 of the Lease.

256. For completeness, I should also note that there was a difference between Mr Hawes and Dr Davies about the significance of ammonia readings within the aeration tank so far as its suitability for the HABC was concerned.

257. CEP's treatment parameters had not identified any target figure for ammonia levels: see paragraph 227 above. In his Report, Dr Davies had referred to the samples taken by him at the ASS in September 2018 and to the level of ammonia recorded at the lorry wash and from the surface of the clarifier tank. He noted that these samples, taken at a time when the modifications mentioned at paragraph 76 above meant that the plant was not operating on an extended aeration basis, were in excess of the limit set by SWW's discharge consent. Dr Davies said that he would have expected the operation of the aeration tank, in the manner intended, would have resulted in the ammonia being treated to within the consent limits.

258. On the basis that his own samples from an earlier point in time (i.e. in 2015 and 2016 and therefore before the modifications) showed much lower levels of ammonia, Mr Hawes was cross-examined on the basis that the reduction of ammonia levels was an indication that the aeration tank was supporting a healthy biomass within it. The assumption was (as Dr Davies came to explain in his testimony) that the low ammonia figure was an indication of metabolism within the tank. In short, it was suggested that the ammonia levels were an indication that aeration tank was, despite its size, capable of functioning properly on the load from the HABC. Mr Hawes rejected that suggestion. He said that the reduction in ammonia was not an indication of a healthy biomass, that aeration alone will operate to break down ammonia, and that "*the system reduces the ammonia because of the sheer size of it*".

259. This reference to the ammonia level struck me as being the last in a number of points on which the experts had not previously engaged with each other and I found their evidence about it to be inconclusive and of no assistance on the question of whether the aeration tank was or was not too large.

260. I now turn to the other alleged defects pleaded in paragraph 16 of the Particulars of Claim. As the size of the aeration tank was the experts' main point of focus and the other matters raise what are essentially factual issues, I can address these relatively briefly.

261. The first of the other pleaded complaints is that "*the wastewater reception tank leaks, allowing groundwater into the system*".

262. The experts did not have much to say about this. Dr Davies had not done any tests on the alleged leak. Appendix A to Mr Hawes' Supplemental Report contained some hearsay evidence about an unnamed Micromac engineer having conducted a test on 15 February 2019 which showed that groundwater was leaching into the reception pit from the adjacent car park area. The Appendix referred to approximately 1.7m³ of groundwater ingress over a 6 hour period which would increase if the ground became saturated through rain.

263. Dr Davies said that the amount of reported water ingress would not have a material effect on the operation of the ASS and Mr Hawes agreed.

264. In my judgment this alleged defect has not been addressed adequately enough in the evidence to support the conclusion that it is an inherent defect of the ASS which is attributable to either defective design or, which is perhaps more likely for clause 26.5 purposes, defective workmanship or materials. When questioning Mr Hawes I pointed out that his Report had not identified any proposed solution to the leak in his list of "essential improvements" to the ASS. He said it would be a civil engineering job, rather than one for a wastewater treatments specialist (as his company Micromac then was) and Dr Davies thought it would not be a very big job. I am sure the leakage forms part of Kivells' overall frustration with the ASS. Mr Kivell said they first reported it at a meeting on 23 October 2014. But whether any failure in tanking (or similar) between the reception pit and the car park falls within clause 26.1 of the Lease or clause 26.4 is wholly unclear.

265. The next pleaded complaint by Kivells is that the "*screenings chute to [sic] the rotary drum screen is regularly blocked by grit received into the drum*".

266. When Mr Hawes gave evidence I was anxious to get a clear understanding of where he said the point of blockage occurred by reference to the relevant photograph in his Report. He confirmed my understanding that the discharge chute appears in the system after the rotary drum screen. Mr Hawes' Report referred to screenings discharge chute becoming occasionally blocked, so that manual cleaning was required, and that a change might be necessary in the form of a widening of the chute. It later referred to Mr Hawes' opinion that a chute with a "*redesigned profile to remove the blockage points*" was required. His Supplemental Report referred to him having been told by Kivells' employees that the chute or "the screen feed pipe" became blocked every market day and that, if not detected early enough, there could be a complete blockage requiring considerable effort to clear it. Mr Hawes had witnessed the discharge chute becoming blocked, and cleared by Kivells employees on 29 January 2019. On that occasion the blockage was caused by straw as well as grit. In his testimony, Mr Hawes said that the blocking of the pipework usually occurred at the 90º elevated elbow going into the drum screen but a blockage might occur elsewhere in the pipe.

267. Mr Hawes' evidence about blockages outside the chute was consistent with Mr Kivell saying (when describing the position at the time of his witness statement in October 2018) that the "*separator blocks at 4 different points 4 or 5 times a week*", that the drum had to be cleared regularly by hand using draining rods and that the pipework between the reception pit became blocked at times and also had to be cleared with rods. Mr Kivell talked about the chute needing to be cleared regularly using drain rods and a high-powered water jet.

268. Dr Davies' evidence was that it was not unusual to encounter blockages within the screen and the checking of the screen and clearing of the chute should be on the operator's daily checklist for routine maintenance. He said that a blockage in the pipe below the elbow might be the result of a lack of flow or a blockage in the elbow itself. Dr Davies did say that a blockage every market day in the pipe ahead of the screen was not normal or to be expected. That answer was consistent with his observation that he would expect this part of the ASS to be checked on a daily basis though he would not expect a build-up of material, presenting the risk of a blockage, to be detected on every occasion. It was Dr Davies' understanding that, at the snagging stage of their works, Morgan Sindall had introduced a section of pipe which enabled a hose to be inserted for the purpose of clearing it. I understood this to refer to the flexible joint in the pipework mentioned by Mr Kivell.

269. Mr Sahonte was correct to observe that a complaint about blockages in the pipe leading to the drum screen had not been pleaded by Kivells. This was despite Mr Hawes introducing a reference to the pipe in his Supplemental Report dated 19 April 2019 (which survived the process of redaction ordered on 13 May 2019). Mr Sahonte said that if the cause was a lack of supply of wastewater to the drum screen – as contemplated by Dr Davies and perhaps supported by Mr Hawes saying the screen was "*lightly loaded*" - then there could be any number of reasons for that. In my judgment, it would be wrong to act on the evidence about blockages in the pipe, to support a claim under clause 26.5 of the Lease when it has not been pleaded.

270. Mr Sahonte also pointed out that, in relation to what had been pleaded, Mr Hawes' reference to the need for a redesigned profile and suggested remedial work to the chute ("1 of Screen chute") were hopelessly vague in identifying the suggested design defect of the existing chute.

271. If the discharge chute has, from an uncertain date following installation, been blocking more regularly than ought to be the case then that might suggest that it is because the drum screen (or separator) is not performing adequately. The screen has 2mm perforations which are designed to block larger solid materials (such as grit and straw) passing through to the balance tank. Mr Kivells' evidence indicates that there is a problem with the screen, requiring that to be cleared perhaps as much as the chute itself. Again, it is unclear whether the cause is a lack of adequate flow or wastewater to the screen or some other cause. However, no complaint is made by Kivells about the design or manufacture of the screen, even though the blockages in the chute are alleged to be caused by grit, and the expert evidence does not suggest there is any cause for one.

272. It is not clear from the evidence when Kivells first encountered problems with the blockage of the screening chute. It did not feature in a list of faults prepared by Mr Downing in July 2015 nor in a list of failures in the ASS, some of them repeated failures, later identified by Mr Champion's email of 15 December 2015 (attaching a list of "defects" over the previous year). The occurrence of occasional blockages to the chute was mentioned in Micromac's Report of 3 June 2016 which used the language later repeated in Mr Hawes' Report of December 2018. To the extent there was a manifest problem by the earlier of those dates, it seems it was not considered to be sufficiently serious to justify Mr Hawes giving further attention to it in the intervening 2½ years.

273. The evidence about the suggested inadequacy about the discharge chute is scant and Mr Hawes' views upon it are rather tentative. In my judgment , the evidence has not established that the design of the chute constitutes an inherent defect within the meaning of clause 26.5 of the Lease.

274. The next pleaded allegation is that "*the balance tank is fitted with a surface aerator whereas a sub-surface aerator would be more efficient in mixing and equalising the effluent*."

275. Neither Mr Sahonte nor Mr de Waal devoted much time in their cross-examination of the opposing party's expert to this aspect of the case. What came of that cross-examination is that Mr Hawes said floating aerators (for balance tanks) were not that common and were going out of fashion. He said this was one not working as it should. Dr Davies, on the other hand, said other, sub-surface aeration methods were more desirable but this surface one was a relatively robust method of providing aeration and it could not be said that it was not fit for purpose. He also said that a surface aerator was not at risk of becoming blocked, as a sub-surface one could be, if material such as sand and grit accumulated at the bottom of the balance tank (I refer to the risk of grit and sand passing through the ASS when addressing the issue of blocked pumps below).

276. My own earlier questions of the experts led me to the conclusion that the difference between them on this aspect lay as much in their appreciation of the purpose of the balance tank more than any other factor. By the end of their evidence I was left with the clear impression that, whereas they both agreed that the primary function of the balance tank is to receive the wastewater and to balance the flow of it to the aeration tank, Dr Davies placed greater emphasis than Mr Hawes upon its secondary function in itself providing an extra aeration process (to that provided by the aeration tank fed by it). Mr Hawes recognised that CEP's Operation and Maintenance Manual stated that the surface aerator should work continuously on market days when the content of the balance tank was at a high level. Focussing upon that point led them to provide their views as to whether or not anoxic conditions would be created in the balance tank when the aerator (which is on a timer) was not working and, if so, whether some bacterial breakdown of pollutants might nevertheless still occur.

277. As I understood their evidence, which was not really explored further in cross-examination, Dr Davies said that even when the surface aerator was not operating the presence of bacteria could still create oxygen in otherwise anoxic conditions and some ammonia would also be removed. This led Mr Hawes to say that none of the RAS should be returned to the balance tank (when the Manual contemplated that one-third would be) but instead should be fed by the aeration tank to a separate sludge tank which would serve as the anoxic phase but which had been omitted from the CEP design. That complaint is not part of Kivells case. However, Mr Hawes also said that the surface aerator on the balance tank should be run continuously if it was properly to serve this secondary purpose, cope with the RAS, keep the solids in suspension (and avoid them settling) and avoid the contents going septic. Continuous operation was obviously expensive for Kivells. I note that Mr Hawes' samples taken from the balance tank (the suggested representative nature of which Dr Davies criticised in the context of the principal issue over the size of the aeration tank) were taken on 19 and 20 May 2016 when the surface aerator was switched off.

278. The timer on the balance tank aerator is designed to operate on a cycle of 30 minutes on and 20 minutes off. The cycle is triggered when the level in the balance tank rises above a depth of 1.4m and stops when it falls below 1m.

279. The experts were unsure of the size of the electrical motor powering the aerator. This was because the label detailing its attributes had either fallen off or been removed. Curiously, this was not the only electrical component within the ASS where such information was missing, as similar labels were also absent from some of the electric pumps. Dr Davies noted that the Operation and Maintenance Manual referred to a 5.5kW motor on the floating aerator but he agreed with Mr Hawes that it was likely to be larger than that (Mr Hawes thought either 7.5kW or 11kW).

280. Although it was not part of Kivells' pleaded case, or at least not expressly part of it, the expert and factual evidence also covered the failure of the springs by which the surface aerator is tethered to the side of the balance tank. The observation that the cables or springs were not strong enough to hold the aerator in place was one of the "defects" noted by Mr Champion's list of December 2015. Mr Kivell explained that, on the occasion referred by Mr Champion, the aerator had to be switched off in order to avoid the contents of the tank being splashed over the side of it. His evidence referred to a number of failures in the cable and springs supporting the aerator which required repair.

281. Mr Hawes' Supplemental Report introduced the point that the rise and fall in the level of wastewater in the balance tank put undue strain on the tethering cables. In his Narrative produced at trial, Mr Hawes said that only 12% of the balance tank's potential working capacity was available because of the restrictions caused by the tethering. Dr Davies said he was unable to comment on that observation as it had only just emerged.

282. In my judgment, the evidence supports the conclusion that the surface aerator is an inherent defect within the meaning of clause 26.5 of the Lease. The evidence shows that the surface aerator installed by CEP is not preventing the build-up of sludge within the balance tank. Mr Hawes had recommended replacing it with a mixing system which comprised three submerged Helixor® mixers (operating through underwater air distribution) fed by a 4kW side channel blower and associated pipework. Dr Davies himself recognised that the floating aerator was less desirable than other options.

283. When viewed alongside the other components of the ASS some other option, such as that suggested by Micromac, should have been deployed. The existing aerator has not served its intended purpose of getting settled solids back into suspension. The result is the excessive build-up of sludge within the balance tank. That was the reason behind the modifications made by Micromac in 2017 and what was then considered to be the temporary fix of installing a temporary submersible pump within the balance tank. Kivells have not advanced a case that the return of RAS to the balance tank is a design defect of the ASS but the inclusion of that feature within the system makes it all the more important that the aeration (or mixing) within the tank is adequate.

284. The next pleaded allegation in support of Kivells' case on inherent defect is that "*there is no automatic measurement of mixed liquor suspended solids in the aeration tank so the level of sludge in system needs to be manually checked*." As I have mentioned, the aeration tank only contains a submerged probe for measuring dissolved oxygen.

285. Even less time was spent at trial on this aspect than the matters relied upon in relation to the primary complaint about the size of the aeration tank. In his closing submissions Mr de Waal QC pointed to the evidence of Mr Kivell to the effect that the lack of an automatic measurement device meant that the level of MLSS in the tank had to be checked on a daily basis and to Dr Davies' acceptance that a probe was desirable. Dr Davies said quite a sophisticated device could be obtained for £1,000 to £2,000, whereas a hand held monitor costs in the region of £200. However, Dr Davies also said that in his experience submerged devices could become fouled with the risk that they produce false readings (so that the cleansing and recalibration of it would itself require effort from Kivells) and that the manual checking of MLSS was a reliable method of measuring MLSS.

286. I accept the submission of Mr Sahonte that the evidence does not establish that the absence of an automatic measuring device in the aeration tank means that either that tank or the ASS more generally suffers from a design defect. Accordingly, this complaint does not support Kivells case under clause 26.5 of the Lease.

287. The final pleaded allegation about the defective design of the ASS, ancillary to the complaint about the oversized aeration tank, is that "*pumps are failing due to grit circulating in the system*".

288. The Particulars of Claim therefore refer to the pumps within the ASS in general terms. I have explained in my description of the ASS (at paragraph 75 above) where the pumps appear in the system. As I have already remarked in relation to the motor driving the aerator in the balance tank, it is a curious feature of the ASS that the manufacturer's labels also seem to have been removed from some of the pumps within the ASS. Mr Kivell explained that this has made repairs of some pumps impossible, because spare parts cannot be identified and ordered, so that an entire pump has had to be replaced in the event of its failure. He also said that the parts of the Operation and Maintenance Manual dealing with the pumps were in Italian.

289. This lack of specificity in the complaint about pumps failing due to the presence of grit has permeated Kivells' case. In his written closing submissions on this point, Mr de Waal QC simply said "*Pumps [are] failing due to grit circulating in the system. This occurs almost every time the [ASS] is operational*." Mr Sahonte submitted that the complaint really seemed to have shifted to a complaint that no grit trap had been inserted in the system.

290. As the complaint is one of failure due to grit circulating in the ASS, I understood the complaint to be that it is the forward feed pumps (used for pushing wastewater from the balance tank and the aeration tank) which is failing due to the presence of grit that survived the screening process. Mr Kivell's evidence about periodic failures in the sewer discharge pumps appears to support the conclusion that the cause of them blocking up was not grit but instead the presence of too much sludge going to the sewer rather than being channelled as RAS or SAS. Mr Hawes' Report said that the pumping arrangement at the reception pit was adequate for the purpose. And I did not understand the evidence to support the idea that grit was affecting the performance of the RAS/SAS pumps (after the clarifier).

291. In his Report, Dr Davies referred to the pumps used to pump wastewater from the reception pit to the drum screen being designed to recirculate some flow within the pit

so that SS can be entrained but with the consequence that the likely effect was that fine sand or grit might also pass through the screen and into the balance tank. I have already mentioned that the screen has 2mm perforations so that finer grit might pass through it. Part of Mr Hawes' recommendations for improving the system involved installing a "grit trap system". He said in cross-examination that he envisaged it would be fitted between the balance tank and the aeration tank. His reports referred to grit having to be dug out of the balance tank and the supplemental one contained the statement that that "*the forward feed pumps have failed*" (I note that Micromac's Report of June 2016 did not comment adversely upon any of the pumps in the ASS and made no mention of a grit trap system).

292. In his evidence, Dr Davies said that he was unclear as to which pumps were said by Kivells to be adversely affected by grit and that he had not examined any particular one. He said that the pumps for forwarding water from the balance tank to the aeration tank were suitable for pumping water containing solids up to 15mm so they should also be capable of passing grit.

293. The limited extent of the expert evidence on this aspect of the claim reinforces the point that my assessment of it really rests upon the factual evidence.

294. Mr Kivell's witness statement contains a catalogue of repeated failures in relation to various pumps within the ASS, from the rainwater harvesting pumps (or washout pumps) used to wash down the market to the sewer discharge pumps. I do not recite all of them in this judgment. The first reported failure in relation to the forward feed pumps was in November 2014, when the pumps ceased to work on their automatic setting and the balance tank overflowed, though the cause of that failure is not clear. They also failed on a day in January 2016 but that was due to them having frozen in the overnight frost.

295. In his witness statement Mr Kivell said that, in November 2016, Graves Electrical Limited were called out to diagnose faults in "*2 faulty dirty water pumps*" (as they were described in the invoice for £986.40 plus VAT, which referred to them being taken away for repair and then being re-fitted) and that "*we have since been advised that the lack of a grit trap in the system has led to many issues with the pumps*".

296. He also referred to the failure in the forward feed pumps in March 2017 which led to Micromac inserting the submersible pump which I have already mentioned in explaining the modifications to the ASS. Mr Kivell was cross-examined about further work undertaken by Graves Electrical in May 2017 (at a cost of £2,202.63) which his witness statement described as being in relation to one pump being non-repairable so that it was replaced and its parts used in the repair of the second pump. Again, there is a lack of clarity over the particular pumps in question, and the terms of the relevant invoice did not identify them, but Mr Kivell was cross-examined about the invoice and he said that, when he asked the electrician (Mr Terry Graves) about the cause of the disrepair he said it was caused by grit. He said that both pumps had now been replaced by sealed unit pumps.

297. Although this part of Kivells' case is lacking in detail, and it would have been desirable to have had evidence from Mr Graves himself, I am just persuaded that it has made good its case that the design of the ASS was defective in the installation of two forward

feed pumps that were not capable of coping with the amount of grit coming from the balance tank.

298. In reaching this conclusion I have taken into account Dr Davies' observation that the first set of pumps (pumping water from the reception pit) would operate to push grit and sand into the balance tank. I also have had regard to the fact that his evidence was that there should be a proper maintenance regime by which the balance tank should regularly be cleared of grit. However, the evidence on behalf of Kivells, which I accept, was that the design of the ASS was such that there was no satisfactory means of getting access to the balance tank to enable that to be done. Mr Kivell said that it was not possible to gain access to the tank with a mini-tanker and hose. He said that Kivells had been criticised for getting into the tank using a free-standing wooden ladder. In May 2019 they had therefore paid Micromac £9,530 plus VAT for the installation of a fixed platform and ladder on the balance tank (which Mr Kivell said had yet to be installed) to gain safer access.

299. These points and the evidence that the forward feed pumps have failed through being blocked by grit support the conclusion that, in relation to the installation of those pumps, the ASS was of an inherently defective design. Mr Sahonte is right to say that there is no pleaded complaint about the failure to fit a grit trap system but the fact that none exists appears to be the reason why those pumps were not up to their task.

300. To conclude my findings on Issues 8 and 9, Kivells have therefore established that the design of the ASS was inherently defective within the meaning of clause 26.5 of the Lease in relation to the excessive size of the aeration tank, the fitting of a surface aerator in the balance tank and the installation of forward feed pumps (pumping from balance tank to aeration tank) which were not capable of dealing with the grit entering into the ASS after the rotary drum screen. However, Kivells have not established that the leaking of water into the reception pit, the blockages of the screening discharge chute and the absence of automatic measurement of MLSS in the aeration tank are either the result of or constitute an inherent design defect.

Issues 10 to 14

301. I have already explained how Issue 15 has fallen away with Kivells' abandonment of any claim to damages for lost management time. And although, by the end of the trial, Kivells were not promoting the claim for damages identified by Issues 10 and 11, it is necessary to address that issue because of the line of argument taken by the Council on the issue of damages.

302. Before turning to the parties' rival contentions on that point, it is necessary to return to the events of 2014 which led Foot Anstey to write in September of that year in terms that reserved Kivells' right, notwithstanding the completion of the Lease, to allege that the Council were in breach of contract.

303. In the section of this judgment addressing the Council's estoppel argument I have quoted from the email that Mr Hicks sent to Mr Waite on 18 December 2013. On 18 February 2014 he sent another email to Mr Waite (which Mr Waite said he did not receive until 4 March) saying: "*As you know this issue* [which was a reference to Kivells

paying for office costs whilst at the same time bearing a turnover rent] *and the variation of the sewerage system situation which I believe is going to involve additional costs has worried me for some time. I don't believe we should move onto other issues until we have resolved these lease term issues*". By a further email to Mr Waite on 11 March 2014, Mr Hicks raised again the "*costs implications for us of the dirty water system*" and that "*the Council are expecting us to permit changes to the agreed tenancy and accept the annual costs of those changes*."

304. On 19 March 2014 (at 13:52) Mr Waite sent an email to Mr Hicks saying that the Council had held a further meeting with Morgan Sindall and "*continue to chase the final information re the sewage treatment and effluent*" and stating there was no point in having a meeting until accurate data was available. Mr de Waal QC said that the email was disingenuous as within the previous two hours Mr Waite had sent (at 11:38) an email to Mr Jenkin – on the subject matter of "Foul Costs for Agribusiness" - an email which "*attached the calculations I have done to predict the annual costs, which appear to be correct from the previous calcs we have seen. Maybe Tara can check them?*" He made the observation that "*this now presents a problem with Kivells as they are not expecting a massive hike in costs pa for sewerage and it is substantial ….*" Mr Waite made those observations by reference to a design specification which identified the "treatment parameters" identified by CEP in June 2013 (including up to 160m³ of wastewater per day being discharged to the reception tank and up to three markets a week).

305. At a meeting between Mr Hicks, Mr Waite, Mr Jenkin and others on 7 April 2014, Mr Hicks made a note which, he explained, recorded him noting that annual discharge costs associated with the treatment system would be £38,000 and the annual maintenance cost £13,000.

306. An internal Council report (to its Community & Resources Department) of 27 May 2014 noted that Kivells had argued that the additional running costs of the system should be borne by the Council or deducted from the rent but that the Council's officers did not accept that position. On 10 June 2014, Mr Waite wrote to Mr Hicks referring to the Council's decision to proceed with the chosen system in order to keep within budget and then stating:

> "*Clearly you have expressed your views that the change from a Reed Bed system to the system being installed, breaches the original agreements, however as stated this is not our view and our surveyor has confirmed that the rent level is based on comparable markets. I can therefore only leave this with you to consider and respond, however, as stated the Council is not prepared to vary the lease rent levels on this matter*."

307. The Council adhered to this stance: that the proposed rent accorded with what were said to be "comparable markets" (which presumably meant those with a mechanical wastewater treatment system rather than the reed bed system identified in the draft lease upon which Kivells had relied when agreeing that level of rent at the stage of the Agreement for Lease). The Council's surveyor appears to have taken a different view from that expressed by Mr de Wreede back in June 2011 (see paragraph 35 above) about the obvious connection between a reed bed system, reduced sewerage costs and the

level of rent Kivells should have to pay. It was the Council's refusal to re-visit the level of rent payable for the HABC that led Foot Anstey to reserve Kivells' rights in September 2014.

308. As a result of the failings in the ASS which Kivells have encountered since taking up occupation of the HABC, in August 2016 Foot Anstey wrote again to the Council. By their letter dated 17 August 2016 the solicitors reminded the Council that Kivells had completed on the Lease without prejudice to its position that the Council was in breach of contract in relation to the wastewater treatment system. The letter referred to the defects in the ASS reported over the previous years, the costs of repairing it and operating it, and called upon the Council to replace it with a reed bed system at its own cost. It enclosed a copy of Micromac's Report of June 2016. Further correspondence with the Council in 2017 served to foreshadow what have become Issues 1 to 3.

309. By late 2017 it was apparent to Kivells that there was no prospect of a reed bed system obtaining the approval of the Environment Agency. In his evidence, Mr Kivell explained how in hindsight it had been a waste of time and money for him to ask Biologic Design in August 2017 to look again at the idea of a reed bed system when Kivells later discovered it was the Agency's policy to refuse consent where a system had already been connected to the mains sewer. The present Claim was therefore issued on 28 December 2017 seeking damages for the incurred cost of repairs to the ASS, the cost of remedying system (as suggested by Micromac) and electricity and sewerage charges attributable to the ASS.

310. On 28 November 2018 Foot Anstey wrote to the Council seeking the Council's consent under clause 28 of the Lease to Kivells carrying out the works recommended by Micromac, on the basis that they would be seeking to recover the cost in the ongoing proceedings. The letter noted that the Council had refused to acknowledge that the matters complained about were the result of inherent defects, within the meaning of the Lease, and carry out the remedial work itself. It said that, by carrying out the work themselves, Kivells would mitigate their losses in the form of high electricity and sewerage charges. It also pointed out that Kivells would not be bound by any public procurement rules.

311. The Council responded very quickly to that letter and did so in robust terms. By its letter dated 30 November 2018, running to 8 pages and containing 49 numbered paragraphs, the Council said that Foot Anstey had not reflected "*on the Lease, the pleadings and the evidence adequately or at all.*" The allegation that the 6 defects alleged in the Particulars of Claim were inherent defects within the meaning of the Lease was rejected by reference to the facts, the expert evidence and the law. The Council noted that no claim for specific performance (by the Council of its alleged repairing obligation) had been advanced and said that the claim to recovering the cost of Micromac's suggested remedial work was "*wholly defective, since the [ASS] is part of the demise and no claim currently set out can succeed since the [ASS] belongs to the landlord*." The Council said that it would not be giving consent to Kivells carrying out the proposed works (expressing astonishment that a request should be made which would have the effect of circumventing public procurement rules governing works to infrastructure belonging to a public body) and said that the ASS should be preserved in its current state for the purposes of evidence being given about it at trial. It also said that "*consent cannot be given for alterations where that consent would be for repairs and, on your case, the Landlord's repairs*" and to the need for planning consent, SWW

consent or other public consents. The Council said, by reference to Dr Davies' views of the ASS, that if the works were carried out then that "*would result in substantial betterment, and would not have the intended effect of achieving savings*." I have only summarised a very long letter.

312. The Council therefore put up a number of reasons why it should not and might not be able to carry out the work suggested by Micromac and why it was (on its case not unreasonably) withholding consent under clause 28.1 of the Lease to Kivells carrying out the work in its stead. I should say that at the trial no consideration was given either to the Public Contracts Regulations 2015 or the suggested basis for a need for further statutory consents to carry out the work. It was not necessary to do so in circumstances where the Council has made it clear that it had formed a view upon such matters and clearly stated that it would not be doing the work itself nor permitting Kivells to do it.

313. The evidence indicates that the cost of putting the ASS into properly functioning order would have been in the region of £113,000. Most of that sum was accounted for by Micromac's quote for the suggested improvements and Mr Hawes said that the associated engineering works would have come to about £20,000. Although it emerged at trial that Micromac could not themselves have done the work (because the company was in the process of being dissolved) Kivells had been prepared to cap this head of loss in that sum.

314. In the context of identifying the Issues I have already noted that Kivells claim has, in the light of the Council maintaining that stance, shifted its focus away from seeking to recover, as damages, the cost of the work recommended by Micromac which would have re-configured the ASS so that it worked as a chemical coagulation system. Instead, Kivells look to recover damages for the costs already incurred in repairing the ASS and damages to compensate them for the heavy electricity and sewerage charges incurred in operating the ASS.

315. Mr Sahonte described this as a case of Kivells seeking "jackpot damages", (carrying the risk that the court might award none) which demonstrated that there was no "institutional basis" for awarding Kivells any damages. His submission was to the effect that damages could only be awarded on one of the following alternative bases: (1) the cost of curing the failure to build a wastewater treatment plant to the contractual specification (if reasonable to undertake them when compared with any diminution in the value of the Lease to Kivells); (2) the diminution in the value of the Lease as a result of the defective manufacture (if lower than cost of cure); or (3) a claim for loss of profit to Kivells' business caused by the cost of operating the ASS. He said that Kivells had pleaded none of these and the last would have been the most obvious.

316. The submission that Kivells have not advanced a claim for installing a reed bed system is an extremely unattractive one in circumstances where the Council has at all times disputed that its contractual obligation was to install one and where (as I have already explained by reference to Mr Kivell's evidence) it was clear by the time these proceedings were issued that the EA was unlikely to give its belated consent to one now being installed. In any event, there would have been an issue, five years on from the construction the HABC, as to where a reed bed might now be positioned. What Kivells did do was to advance a more modest claim for damages to reflect the cost of remedying the ASS in accordance with Micromac's quote of £90,195, together with associated

engineering work. I have outlined above the Council's response to the suggestion that damages might be recovered on that basis.

317. Leaving to one side for the moment the cost of past repairs carried out to the ASS, the Council's position comes to saying that Kivells have an insufficient economic interest in the ASS to support a claim for damages in respect of the costs of any remedial work to it. That is because Kivells cannot carry out the work which would put them to the expense necessary to support such a damages claim, as the ASS is a fixture and the Council will not give its consent to the alteration of the system.

318. In these circumstances, and there being no question of Kivells sensibly seeking specific performance of an obligation to install a reed bed or damages in lieu of such performance, a conventional award of damages must be directed to the financial consequences of the two distinct breaches of contract alleged in paragraphs 15 and 16 of the Particulars of Claim. Kivells plainly have an economic interest in those contracts (and their rights under the first were expressly reserved upon their entry into the second).

319. I have found that the Council was in breach of the terms of the Agreement for Lease in constructing the ASS rather than a reed bed system. The evidence shows that both parties expressly contemplated the increased electricity and sewerage costs that would be payable by Kivells as a consequence.

320. I have also found that the ASS contains inherent defects within the meaning of the Lease and the effect of which the Council has clearly indicated it does not intend to remedy or ameliorate. Had it taken a different view then Kivells would still have suffered the increased operating costs of the ASS until the Council (having complied with any required public procurement process and obtained any necessary consents) was able to act upon it. The evidence also shows a properly functioning ASS was aimed at meeting the terms of SWW's discharge consent. Although Kivells have since made modifications to the ASS, which mean that it is not now operating as an extended aeration plant, they were made (eventually) as a consequence of the inherent defects that I have found to have existed.

321. As Kivells's attempt to mitigate the prospective losses has been rejected by the Council, and neither the cost of past repairs nor the ongoing operating costs can in these circumstances be regarded as being heads of loss that are too remote, the task of the court is to fix upon an appropriate compensatory measure of damages.

322. The Particulars of Claim identified the then cost of past repairs to the ASS as £20,613 and identified the electricity costs and sewerage charges paid by Kivells down to different dates in 2017. Kivells said that 60% of the electricity costs were attributable to operating the ASS rather than a reed bed system and that none of the sewerage charges would have been incurred if a reed bed had been installed. The Council responded by saying that even the ARM proposal contemplated that the reed bed would use 20kW of power (though not continuously) and that the wetland system at Hereford (about which Mr Hyde gave evidence) was not a truly comparable to a reed bed system. It also said that Kivells was seeking to be over-compensated in circumstances where it will have deducted the increased operating costs when calculating its profits for tax purposes.

323. That last point was made by Mr Sahonte in his extensive written closing submissions and it was not addressed orally on the final day of trial. It was a particular point made in support of his wider one that Kivells should have presented its claim for operating costs in the shape of a claim for damages for loss of business profits. As with some other aspects of the Council's legal argument in this case, there seems to me to be an unnecessary level of complexity in its approach which I believe departs from the reality of the situation.

324. Unless a claimant (in business) is seeking to recover further economic loss than that measured by its *expenditure* in making good the defendant's alleged contractual default, there seems to be no obvious reason why it should have to present its claim in the form of loss of (taxable) business *income*. Indeed, the desirability of avoiding the added level of complexity and cost in the form of the expert accountancy evidence which would probably be necessary for consideration of that expenditure in the context of the claimant's other business expenditure and receipts, and for any comparison of the claimant's actual pre-tax profit with its notional one, seems to me to be a good reason for not doing so. A contractual claim for damages in respect of a defendant's failure to supply goods is not normally met with consideration of matters that go beyond the terms of the bargain between the claimant and defendant (whether a good bargain or not from the claimant's perspective) such as the impact that due performance of the contract would have had on the claimant's taxable profits.

325. Whether or not there would, as a matter of accountancy analysis, be any material difference between the actual operating costs of the ASS and the loss of business profit attributable to those costs having been incurred, I see no proper basis for the Council claiming the credit for the amount of additional income tax or corporation tax that Kivells (the partners and then the company) probably would have paid if the relevant expenditure had not been incurred. Kivells' claim is not one for *loss of net earnings* for the purposes of the principle in *British Transport Commission v Gourley* [1956] AC 185. And I reject the submission that it had to be presented either in that way or (as if Kivells wanted to dispose of their business rather than carry on trading) in the form of a claim to damages reflecting the diminished value of the Lease as a result of the ASS, with the consequence that Kivells have failed to establish any recoverable loss.

326. Kivells did present evidence of the actual costs of running the ASS. Mr Bromell gave evidence about the proportion of Kivells' electricity bills which were, he said, attributable to the ASS rather than the rest of the HABC. He said it was not possible to establish this by a comparison between the main meter reading and the reading on the sub-meter for the ASS because he said that the main meter measured in KVarh (i.e. kilo volt active amperes reactive hours) whereas the sub-meter read in kWh (kilowatt hours). It was therefore impossible to correlate each with the invoices from British Gas for the entire HABC. In June 2016 Micromac expressed the view that to run the balance tank and aeration tank aerators continuously, as they should be given the underloading, would cost about £4,600 per month.

327. Mr Bromell explained that in early 2016 he had asked the electrical contractor, Mr Graves, to put clamps on the electricity going into the meter room (for the whole HABC) and a clamp on that supplying the ASS and that, after a fortnight's testing, Mr Graves had reported that the ASS was using 60% of the total supply. Mr Bromell said "*I knew we had 55 kW of machinery in the effluent area*."

328. I accept this evidence. Although the Council submitted that a lower percentage was attributed to the ASS in a separate report prepared for Kivells in March 2018 by IU Energy (which appears to indicate a percentage closer to 40% of the total energy consumed in the period between mid-October and early December 2017) Mr Sahonte's questions about that report were put to Mr Kivell. Mr Kivell said that they would be better directed to Mr Bromell ("*Mark Bromell has done a huge amount of work on this*") but Mr Bromell was not tasked with it when he gave evidence. I note that IU Energy undertook their measurements at time after the modifications to the ASS which have resulted in it not operating as an extended aeration plant.

329. As I have already mentioned in connection with the size of the aeration tank, Mr Bromell also explained in his evidence the quantity of effluent which had been discharged to the SWW sewer. He explained that it was the metred reading of 20,232m³ which had produced the daily average of 98.42m³.

330. In Appendix 1 to his closing submissions, Mr de Waal QC prepared a detailed analysis of the breakdown of the sums sought to be recovered under the heads of claim identified in the Particulars of Claim. In his oral submissions he did not dwell upon the cost of recovering the anticipated cost of remedying the defects in the ASS for the reasons I have explained.

331. The cost of past repairs to the ASS was supported by a schedule to Appendix 1 containing the detail of the invoices relied upon which (excluding one from Micromac which related to the cost of preparing their June 2016 report on the ASS) totalled £38,677.63. Of course, I have not found the ASS to contain all the inherent defects alleged by Kivells and I have already noted the vagueness of their case in relation to the identification of particular pumps blocked by the presence of grit and requiring repair. It is clear from the evidence that pumps other than the forward feed pumps (which are the ones I have found to have constituted an inherent defect) were repaired, though it is not clear which pumps were repaired or when and at what cost. The Council said that this means that Kivells have failed to prove any loss at all. I disagree as it is clear that some of the invoices related to items within the ASS that I have found to be inherently defective. However, the evidence and submissions at trial was not directed to identifying which work was directed at a repair which I have now found was the responsibility of the Council under clause 26.4 of the Lease. This is just one aspect of the case where the application of hindsight shows that it was not realistic to expect that the evidence and full argument on the detail required to be covered in this judgment, by reference to the voluminous evidence before the court, could be covered in the time available.

332. It is troubling that the Council has adopted a stance over the ASS (saying that it was in accordance with the Agreement for Lease and any denying that any shortcoming in its performance was its responsibility) that has already resulted in significant legal costs already being incurred when compared with the cost identified in Issue 10. However, with a note of regret, I see no alternative to the need for a further hearing to address the schedule of invoices in the light of my findings as to which of paragraphs 16.1 to 16.6 of the Particulars of Claim have been established unless the parties can agree the quantification of this head of loss.

333. Kivells' closing submissions identified the operating costs of the ASS to date by reference to supporting schedules identifying the detail of bills from SWW (for

sewerage costs) and British Gas (for electricity). These showed that the sewerage charges averaged £12,243 per annum over a four year period and the electricity charges averaged £45,582 per annum over 56 months. Applying Mr Bromell's 60% figure to the latter produced a yearly figure of £26,149. Kivells compared the combined operating costs to date with the annual cost identified by Mr Hyde for operating the wetland system at Hereford market (£11,450) even though Mr de Waal QC observed that the Hereford system is larger than the 2.2 acres that would have been required by Kivells. That exercise produced a claim for loss and damage to date, through the absence of a reed bed system, of £99,006.

334. Looking forward, Kivells said that the same comparison between the yearly sewerage and electricity charges paid by Kivells and the operating costs at Hereford produced a claim of £22,942 per annum. Although Mr de Waal's written closing had contemplated that Kivells would remain in occupation under the Lease beyond 31 August 2034 (the Lease contains an option to renew for a further 20 years) he confined his client's claim for damages in respect of future costs to what was then the remaining 15 years and 4 months. That produced a figure of £351,787. I questioned Mr de Waal about the need to apply a discount for the accelerated receipt of a damages awarded in respect of expenditure over many years ahead. In my judgment, he gave a convincing answer when he responded by saying that the costs of the electricity and sewerage charges were likely to rise with inflation. He said that this could be seen by what was an increase of approximately 15% between the amount of two SSW's bills (from November 2017 and April 2019) charging for approximately the same amount of cubic metres of discharge. I pointed out that SWW had charged less per cubic metre in 2015 and 2016 than they had started out charging in October 2014 but my understanding is that the reduction reflected a goodwill gesture on SWW's part.

335. I accept the correctness of Kivell's approach to the calculation of damages for incurred and prospective operating costs, subject to one point. And that point really relates back to the somewhat jejune nature of the parties' agreement over a red bed system that has spawned Issues 1 to 3.

336. Although there is force in Kivells' point that the Council thought the Hereford system to be sufficiently similar to what the parties had in mind to justify a visit in September 2011, the fact is that a wetland system is something slightly different from a red bed system of the kind mentioned in the Specification. That is how Mr Bromell and Mr Quincey viewed matters after their visit to Hereford in September 2011. I have already referred to Mr Hyde's evidence describing the different plant life within it. He explained that the pumps (to the screen) were two 5kva pumps and there was a further 3kva pump from the screen to the wet land. The report from Biologic Design supplied to Mr Kivell in December 2011 (contemplating a 2.5 acre site for the "WET system" running the entire length of the southern edge of the HABC) did not identify the intended power consumption but did contemplate the use of high pressure washers for washing down and the inclusion of a rotary drum screen with a feed rate of $20m^3$ per hour. Although both systems would necessarily have required washing down equipment, this was something different from the $3000m^2$ reed bed, aerated with 20kW of power on a non-continuous basis, contemplated by the ARM proposal.

337. It is also the case that none of the effluent at Hereford passes into the mains sewer. Instead, that which is not addressed by the natural process of "evapotranspiration" goes to settlement tanks which are emptied on a weekly or fortnightly basis. Yet both the

CS Document and the discussion at the meeting on 7 August 2012 appeared to recognise that there would be a connection between the reed bed at the HABC and the mains sewer, even though Kivells understood this to be proposed only as back up, should it be sometimes necessary to discharge to the mains.

338. I must do my best with the available evidence in assessing the impact of these differences and the uncertainty over the precise design attributes of the reed bed system (when no Detailed Specification in respect of one was ever produced). My assessment of Kivells' claim based upon the differential in annual operation costs – applied both to the period down to trial and projected into the future (with no discount for the time value of money being appropriate) – is that the annual figure of £22,942 should be discounted by 5%. This produces an annual figure of £21,795.

Disposal

339. In the light of the concessions and findings set out in the above paragraphs I therefore determine the issues set out in paragraph 11 above as follows:

1) Issue 1: the CS Document was attached to the Agreement for Lease.

2) Issue 2: the CS Document cannot be treated as the Detailed Specification as defined in the Agreement for Lease.

3) Issue 3: the parties agreed that a reed bed system, not the ASS, should be installed at the HABC.

4) Issue 4: a subsequent variation of that agreement has not been pleaded by the Council but in any event the agreement was not subsequently varied.

5) Issue 5: the Council has not established that Kivells are precluded from alleging a breach of the agreement by reason of an estoppel by convention.

6) Issue 6: the Council has not established that Kivells are precluded from alleging a breach of the agreement by reason of a promissory estoppel.

7) Issue 7: a subsequent waiver by Kivells of the right to a reed bed system has not been pleaded by the Council but in any event no such waiver occurred.

8) Issues 8 and 9: the ASS is defective in the size of its aeration tank, its surface aerator at the balance tank and the installation of the forward feed pumps; and each of those is an Inherent Defect within the meaning of clause 26.5 of the Lease.

9) Issues 10 and 11: the costs of putting the ASS into working order is in the region of £130,000. However, that cost is academic as the Council will not permit Kivells to undertake the work. Kivells are entitled to recover from the Council damages reflecting the cost of past repairs undertaken in connection with the three inherently defective items identified above. If there is no agreement upon the extent of those damages there will have to be a further hearing to establish their amount.

10) Issues 12, 13 and 14: The extra operating costs which Kivells are entitled to recover from the Council, as damages for having the ASS rather than a reed bed system, equate to £21,795 per annum. In relation to the prospective element of this loss, Kivells are entitled to recover from the Council, without any discount for accelerated receipt, damages based on that annual sum over the remainder of the 21 year term under the Lease.

340. I invite the parties to agree the terms of an order which reflect this decision. In the event of there being disagreement over the level of interest payable on damages for past losses and/or the recoverability of certain repair costs then those matters will, together with any outstanding issues over costs, be the subject of a further hearing.