

# PLANNING APPLICATION BY BREEDON SOUTHERN LTD FOR THE EXTENSION OF STOWE HILL QUARRY & RETENTION OF MINERAL PROCESSING PLANT IN CLEARWELL QUARRY

Ref: 17/0122/FDMAJM

**Response by Newland Parish Council to further information supplied as a result of Regulation 25 request.**



June 2018 (v.1)

# NEWLAND PARISH COUNCIL

Response to Gloucestershire County Council to Planning Application 17/0122/FDMAJM

to further information supplied as a result of a Regulation 25 request.

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## **INTRODUCTION**

This response addresses the new / revised information submitted by BSL contained in:

Environmental Statement Chapter 10 v.3 – Hydrogeological impact Assessment & Flood Risk Assessment

Environmental Statement Chapter 10A v.3 – Technical Analysis

Environmental Statement Chapter 10E v.3 – Risk Assessment

This supplemental response deals solely with the revised information contained within the preceding documents and should be read in conjunction with the original response dated February 2018 and the Supplemental Response dated May 2018.

## **EXECUTIVE SUMMARY**

In our view the revised information changes very little of significance. Chapter 10 v.3 is an almost complete duplication of the previous version and where changes have been made we have commented.

We repeat our concern that an applicant of the standing of BSL has paid so little attention to some detail in both the original and revised documents, that doubt must be cast on the confidence with which any part of the application may be relied upon.

We highlight in this response alterations etc from the original and previous submissions and raise questions against some of them which, we suggest, the MPA should seek credible answers to. There are other issues which we are not qualified to address but to which we look to the regulatory authorities to be entirely satisfied with.

We are particularly concerned with the following issues:

- The reluctance of BSL to accept a buffer zone of 250m (point 18)
- Proposal to work BELOW the highest water table (point 20)
- Concerns expressed by Natural England and the Environment Agency – no evidence that they have been addressed (point 56)
- THE HOLYMOOR REPORT (*the following are verbatim quotes from the report*)

“6. Key Observations for Minimising Impact on Slade Brook Springs

From the above observations, we can identify several key factors for “Why the Slade brook is Special” – i.e. why it experiences tufa dam formations.

1) The water from the springs contains an unusually high content of dissolved inorganic carbon and calcium...

*Affected by proposals? Potentially. The proposal will ... result in agricultural soils being removed and replaced by (at best) some form of artificial epikarst. The proposal will also remove limestone unsaturated zone (which may also be an important focus for respiration.*

**The precautionary principle must therefore apply**

2) The spring waters’ unusually high calcium carbonate content may also be related to a long residence time in the groundwater system (tentatively over half a year).

*Affected by proposal? Potentially*

**The precautionary principle must therefore apply**

4) The colonisation by the tufa deposits by photosynthesising ridge-building algae and mosses may be a key factor in tufa dam development.

*Affected by proposals? Unlikely, unless quarrying significantly changes nutrient loadings in the spring water (e.g nitrate from explosives)*

**The precautionary principle must therefore apply**

6) A significantly more “flashy” flow regime, with shorter residence times and higher peak flows, might lead to more frequent episodes where high flows erode developing tufa dams.

*Affected by proposals? Unlikely, but needs to be demonstrated the proposals will not significantly alter the residence times ... or will be limited to a negligible portion of the catchment area.”*

**The precautionary principle must therefore apply**

In addition to the above we have highlighted eight instance\*\* in the new submission which, until resolved, must be considered under the **Precautionary Principle**.

\*\* Ref 21, 25, 26, 27, 34, 36, 39 & 47

## **CONCLUSION**

The conclusion we draw from these revised documents is that they change nothing so far as the application is concerned. The applicant has been allowed more than ample opportunity to come forward with acceptable proposals but has clearly failed to do so. The responses do not address concerns previously expressed; furthermore, as time passes more anomalies and uncertainties are revealed and concerns raised.

Our original response remains that the **application should be REFUSED**.

## HYDROGEOLOGY

[This is covered in Chapter 10 of the Revised Environmental Statement]

Relevant legislation / guidance

Adopted MLP Policy E11. “Mineral development which is likely to have a significant negative quantitative and / or qualitative impact on the water environment, will not be permitted unless appropriate measures can be imposed to mitigate any harmful effects.”

### PART 1 - RESPONSES TO A REGULATION 25 REQUEST BY GCC IN MARCH 2018

(Where boxes are blank, see asterisk\*\* comment after point 19)

OUR REF	INFORMATION REQUESTED	INFORMATION SUPPLIED	NPC COMMENTS ON INFORMATION SUPPLIED
	Clarify & provide information on the following:		
	<b>HYDROGEOLOGY</b>		
1	- the aquifer classification of the site		
2	- will the access road to the farm be for the sole use of the farm or will it be use by quarry traffic?	The proposed farm access will be for the sole use of the farm and will not be used by quarry traffic	
3	- will inert waste be used as part of the restoration layer in the proposed extension?	It is not proposed to use inert waste as part of the restoration layer in Stowe Hill quarry or the proposed extension area.	What material is to be used for restoration not only of the proposed extension area but the existing area and in Clearwell quarry?

4	<ul style="list-style-type: none"> <li>- The potential impacts on groundwater flow and chemistry due to a very thin unsaturated zone remaining beneath the base of the proposed void on the Slade Brook flows</li> </ul>		
5	<ul style="list-style-type: none"> <li>- The implementations [<i>should this "implications"?</i>] due to the maximum ground water elevations being predicted rather than measured, meaning that there is the potential that groundwater elevation could occasionally rise to ground surface in the proposed void, and ponding in the base of the void could occur.</li> </ul>		
6	<ul style="list-style-type: none"> <li>- Known large karst features are not shown on key figures in the report and potential infilled karst features identified by geophysics are not referenced. The farm / quarry access road could potentially intercept lateral drainage from the limestone shales on Orles Wood / Bears common</li> </ul>		
7	<ul style="list-style-type: none"> <li>- The proposed epikarst recreation lacks detail in its proposed method and predicted performance over the long term</li> </ul>		
8	<ul style="list-style-type: none"> <li>- The monitoring scheme at the site will continue, however there is no detail on how any impacts on groundwater flow and chemistry can be identified and what contingency measures will be applied in the event that a measurable impact is identified</li> </ul>		<p>It is absolutely critical if the application is permitted that real-time independent monitoring of the flow rates are established from day 1</p>

9	- The cumulative impacts including past and future due to quarrying at Clearwell and Stowe Hill quarrying on hydrology of the site and surrounding area.		
	<b>HEALTH ENVIRONMENTAL POLLUTION</b>		
10	- The need for a Health Impact Assessment	<p>3.1 The December 2017 Environmental Statement already assess both singularly and cumulatively the impacts of the development proposals, which include topics which could impact human health such as air quality, noise and traffic.</p> <p>3.2 The quarry extension area in the 2017 ES is much smaller than the area considered in the 2014 &amp; 2015 ESs.</p> <p>3.3 The area covered by the earlier ESs had a greater potential for significant environmental impacts but no Public Health Impact Assessment (PHIA) was required. It follows that it would not be necessary for PHIA</p>	<p>Quite clearly the applicant has no wish to have a PHIA undertaken and one has to question why this is.</p> <p>The fact that no such assessment was called for during consideration of the earlier application is irrelevant; consideration by the MPA did not conclude in that case and a PHIA may well have been called for; indeed this Parish Council in its response called for a PHIA (Clause C2.12).</p> <p>All that aside, the applicant has a moral responsibility to satisfy residents who will be affected by the proposed development that there is no demonstrable risk to their health and wellbeing.</p>
11	- Details on measures designed to minimise the impact upon air quality in the designated AQMAs in Lydney from HGV movements associated with the quarries operation	There will be no increase in production or extension of time for working the quarry, there will be no increase in HGVs passing through Lydney.	The fact that HGV volumes will be unchanged is irrelevant. Traffic volumes generally are increasing, NO <sub>2</sub> limits are already exceeded both at the Lydney AQMA and, much more significantly in Chepstow (already one of the most polluted towns in the UK)

	<b>LANDSCAPE</b>		
12	- Winter photographs from the viewpoints	Included in revised documents	<p>The comment which accompanies every winter photograph is “This view demonstrates that the proposed quarry extension area is unlikely to generate significant adverse visual effects of the areas around Sling (viewpoint 10)”,  “north of Clearwell (viewpoint 11)”,  “Shop House Farm (viewpoint 12)”,  “footpath RNE57 near Platwell House (viewpoint 13)”,  “Stowe Green (viewpoint 14)” and  “Longley Farm (viewpoint 15)”.</p> <p>Every photograph shows quite clearly that the opposite is the case; as the majority of the trees are deciduous it follows that their ability to screen the proposed extension area is lost during the winter months.</p>
13	- Photomontages from Viewpoints 3 & 4 (appears to be mis-numbered as a second 3) and (these should be based on winter photographs)	Included in revised documents	<p>These photomontages are no more than artists impressions of what the applicant hopes will be achieved during and on completion of restoration. They can show whatever the applicant wants them to show.</p> <p>We note that viewpoint 9 shows a bare rock face even after final restoration.</p> <p>We give no credence whatsoever to these idealised visions of the future.</p>
14	- Sections through Shop House Farm to illustrate the extent of screening provided by the proposed bunding but also to assess and shadow / shading implications of these on the property	Included in revised documents	<p>The sections have been very carefully chosen to minimise the effect of the bunding. There needs to be a section running in a generally SW-NE along the curtilage of Shop House.</p>

			The sections supplied give no aid to assessing the shadowing effect on the property (as requested).
15	- With the increase in recycling and the vagaries of the construction industry will there be not enough inert material available to complete the restoration scheme of the application and currently consented works to me the timescale for this application	As no inert materials will be used the suggestion is not relevant.	What material is to be used for restoration not only of the proposed extension area but the existing area and in Clearwell quarry?
16	- The proposed footpath alignments and will they be reinstated to reflect historic alignments, with different alignments only provided as additional routes if to provide enhanced access	<p>It is not clear why footpath RNE66 should be restored to its exact original route. Restoration of the path across proposed across rock faces is clearly impractical without sacrificing restoration materials need elsewhere within the site and dramatically changing the fundamental landform design.</p> <p>The exit point for the diverted section of RNE66 towards Clearwell is unchanged allowing access to RNE57.</p> <p>In fact the new link to RNE59 and on to Clearwell by Shop House Farm is far more convenient for the walker than the current route along Longley farm access road, as the latter required a 400m walk along Stowe Road to link up with RNE57.</p>	<p>It is totally unacceptable that the footpath RNE66 should not be restored to its exact original route. Yes, it would, by the applicant's admission, require the use of restoration materials and the applicants must acknowledge that they have a duty to the community to leave the land as undisturbed as possible. It is not theirs to do exactly what they will with, with no regard for the historic landscape.</p> <p>Point taken, but this has not been an issue in the past and there is no reason to suppose it will be in the future.</p>

17	<ul style="list-style-type: none"><li>- The possibility to provide greater woodland connectivity with Barse Common and Orles Wood from the restored site.</li></ul>	<p>There is already connectivity between the existing quarry and the woods. The character of the limestone plateau is mostly open agricultural land.</p> <p>I have added additional hedges to reinforce an appropriate field pattern and woodland belts to help soften the edges with the quarry. We could plant an additional off-site belt between the northern point of Barse Common and the sink hole enclosure, but I'm not sure it would add much to the landscape in terms of character or ecological connectivity. Perhaps the ecological consultant might have a view on this.</p>	
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	<b>BUFFER ZONES</b>		
18	<p>- The possibility of having 250m buffer zone from any residential property</p>	<p>There is no industry standard or planning policy requirement for minimum buffer zones, either nationally or locally.</p> <p>Where it is necessary the provision of sufficient buffer zones is required, however distances are not given. Instead the extent of a buffer zone is subject to the distance required in which impacts such as noise, dust and blasting can occur within acceptable environmental limits.</p> <p>The impacts of the proposal have been fully assessed in the ES, where it is assessed that the proposed buffer zones are sufficient. As a result there is no justification to increase the buffer zones beyond those proposed.</p> <p>The buffer zones are consistent with the 100m requirement under PP ref DF/2238/X, thus a precedent of 100 m has been established. Nevertheless the nearest residential property is 175m from the proposed extraction area.</p>	<p>There may be no 'industry standard'; one would hardly expect there to be! It is down to the MPA to assess each case on its merits but reference must be made to good practice exercised by other authorities.</p> <p>We repeat the point we made in our response (Clauses C1.17 &amp; F3) that examples of best practice in other authorities are:</p> <ul style="list-style-type: none"> <li>• County Durham: 250m or 500m for blasting (groups of 10 or more dwellings)</li> <li>• Leicestershire: 500m</li> <li>• South Lanarkshire: 250m</li> <li>• Somerset: 400m</li> <li>• British Geological Survey guidelines: 250-500m</li> </ul> <p>The word "assessed" is important. What is relevant is what the MPA considers a sufficient buffer zone depth and one has to ask whether the directors of the applicant company would sit back and accept a working quarry at a distance of less than 250m from the boundary of their property. We think not.</p> <p>It is absolutely NOT the case that a precedent has been set. Planning law states that precedents cannot be set by previous permissions.</p> <p>The applicant has a moral duty of good neighbourliness not to impose unacceptable</p>

			nuisance by way of noise, dust and other pollution which would be the case with a narrower zone.
	<b>PLANT</b>		
19	- Details on plans to improve / replace existing fixed plant	<p>Erection of Scalping Screen and cladding of Primary Crusher to be completed within 6 months of the granting of PP.</p> <p>Re-sheeting of door accesses to Scalping plant to be completed with 3 months of PP.</p> <p>Installation of automatic shutting doors to Scalping Building to be completed within 3 months of PP.</p> <p>Improved dust suppression on Stockpile Conveyor to be completed within 3 months of PP.</p> <p>Encapsulate transfer point on Secondary Plant to be completed within 3 months of PP.</p> <p>Improved dust suppression on load out for HGVs to be completed within 3 months of PP.</p>	<p>In all of these cases the applicant should supply precise details of the proposed work to the MPA for approval.</p> <p>All the proposed improvements must be 'signed off' by the MPA BEFORE any work is commenced in the proposed extension area.</p>

\*\* Further information requested by GCC is, if supplied, contained within the re-written following documents:

Environmental Statement – Chapter 10.

Technical Analysis – Chapter 10A

Risk Assessment Tables – Chapter 10E

**PART 2 - ENVIRONMENTAL STATEMENT – CHAPTER 10 – HYDROGEOLOGICAL IMPACT ASSESSMENT & FLOOD RISK ASSESSMENT**

Comments on v.3 of the document

Where wording has been altered (as opposed to omitted or inserted) it is in italics and bold

	<b>Paragraph v.1 v.2 v.3</b>	<b>Original version (v.1)</b>	<b>1<sup>st</sup> revised version (v.2)</b>	<b>2<sup>nd</sup> revised version (v.3)</b>	<b>NPC comment</b>
20	10.1.17 10.1.17 10.1.17	It is proposed to work the Extension Area 6m deeper to 170m AOD. This will be above the highest estimated and recorded "water table" level	Unchanged.	Final sentence "This will be above the highest estimated and recorded "water table level" is OMITTED	The revised version states (at 10.2.86) that there will be occasions when the water table is above 170m AOD
21	-- 10.2.30 10.2.30		(New para.) The exact interface within the Slade Brook is extremely difficult to determine. [Then quotes a reference]. On this basis and our own observations we agree...that there is little potential for flow through the limestone below Slade Brook.	Unchanged	If it is "extremely difficult to determine the exact interface within the brook", on what basis is the statement that "there is little potential for flow through the limestone"?  In view of the "uncertainty" the <b>Precautionary Principle must apply.</b>
22	10.2.40 10.2.41 10.2.41	It is understood...that 4 natural solution features have been historically identified in the direct vicinity of Stowe Hill Quarry...	It is understood...that 4 natural solution features have been historically identified in Stowe Hill Quarry, <b><i>within the limits of the original extension in 2005</i></b>	Unchanged	

23	-- 10.2.42 10.2.42		(New para.) [Referring to 4 natural solution features detailed in 10.2.40] While excavation of these features was included in previous extension planning applications, this is NOT the case in THIS planning application.	Unchanged	
24	10.2.70 10.2.72 10.2.75		(Additional sentence.) The contours are not being used to define a groundwater catchment area, as would be done in a traditional porous media aquifer setting.	Unchanged	Why are the contours not being used?
25	10.2.82 10.2.82 10.2.86	It is predicted that the winter high groundwater elevation in the extension area will range between approximately 166.70. and 169.25m AOD	Unchanged	The April 2018 groundwater levels do show the background water table is above 170m AOD.	Demonstrates the inaccuracy of the original prediction. <b>Precautionary Principle must apply.</b>
26	-- -- 10.2.87			(New clause) Establishing the groundwater high is important in defining the depth of excavation. ... it is considered that the extension area is generally above background water table, except for short periods in extreme high recharge periods.	Working this close to the water table is unacceptable particularly bearing in mind the scientifically accepted fact that global warming will lead to more frequent occurrences of extreme rainfall. <b>Precautionary Principle must apply.</b>

27	-- -- 10.2.89			(New clause) Given the possibility that in extreme rainfall situations the background water table could be at or close to the base of the proposed extension, it is suggested that the lower benches are only worked once agreement is reached on the longevity of a high background water table ...	Working this close to the water table is unacceptable particularly bearing in mind the scientifically accepted fact that global warming will lead to more frequent occurrences of extreme rainfall. <b>Precautionary Principle must apply.</b>
28	10.2.131 10.2.133 10.2.141&142	(Final sentence.) The ancient woodland soils also represent high production, as is generally expected.	This sentence omitted.	Unchanged	
29	-- 10.2.134 10.2.143		(New para.) What is counter intuitive is that the ancient woodland soils show lower values of pCO <sub>2</sub> . This may be a function of the very short data record.	Unchanged	
30	-- 10.3.7 – 9 10.3.7 - 9		(3 x new paras)	Unchanged	
31	10.4.4 10.4.4 10.4.4	(Final sentence.) The fast flow catchment calculated for a dry condition with low intensity rainfall, corresponds to the total area of the mapped Slade brook valley and enclosed depressions mapped as contributing to the discharge by tracer tests.	Sentence omitted.	Unchanged	Why is the sentence omitted?

32	10.4.5 -- --	The larger fast flow catchment areas are less than the slow flow catchment area, and therefore the slow flow catchment area does not need to be extended to accommodate them.	Clause omitted.	Unchanged	Why is the sentence omitted?
33	10.4.6 10.4.5 10.4.5	The quarry extension area...covers an area of 0.12km <sup>2</sup> ...represents circa 5-7% of the slow flow catchment	The quarry extension area...covers an area of <b>0.073km<sup>2</sup>...represents circa 3.5-4.5%</b> of the slow flow catchment. [This amendment occurs in several places in the revised version]	Unchanged	Which is correct? Casts doubt on any statistics within the application.
34	-- -- 10.5.38			(New clause) During the extreme rainfall of March and April 2018, groundwater levels below a small part of the extension area rose to 171.1m AOD for a short period of time. ...the background water table is not expected to flood the base of the extension to any significant degree.	Working this close to the water table is unacceptable particularly bearing in mind the scientifically accepted fact that global warming will lead to more frequent occurrences of extreme rainfall. <b>Precautionary Principle must apply.</b>
35	10.6.3 10.6.3 10.6.3	(Bullet point 1) Surface water drainage, although it is noted that no drainage will leave the site as all will drain in to the quarry sump.	(Bullet point 1) Surface water drainage, although it is noted that no drainage will leave the site as it will all drain to <b>an area at the southern end of the quarry where it allowed to pond and percolate.</b>	(Bullet point 1) Surface water drainage, although it is noted that no drainage will leave the site as it will all drain <b>to the Restored Pond at the southern end of the quarry where it allowed to infiltrate.</b>	

36	-- 10.6.3 10.6.3		(New bullet point 3) The site water management plan does cover a contingency where water can be discharged from the pond via sinkhole, in the unlikely event that levels rise. The assessment recognises this pathway/	(Additional bullet point 3) Unexpected fast flow pathways uncovered in the extension area.	How many more unexpected elements will be discovered? <b>The Precautionary Principle must apply.</b>
37	10.6.9 10.6.9 10.6.9	Slade brook SSSI lies some 0.9km to the south-south-east...	Excludes the words "lies some 0.9km to the south-south-east..."	Unchanged	Words omitted presumably to try to lessen the proximity of the brook
38	10.6.10 – 12 10.6.10 – 12 10.6.10 – 12		Completely re-written	Unchanged	
39	10.6.13 10.6.13 10.6.13	Reduction in calcium carbonate content of the groundwater entering the headwater springs could reduce tufa perpetration. A reduction in the precipitation of calcium carbonate has the potential to reduce the active formation of the tufa. The potential that changes in the calcium carbonate content of groundwater therefore may reduce the status of the SSSI	Reduction in the calcium carbonate content of the groundwater entering the headwater springs could reduce tufa precipitation and therefore may reduce the status of the SSSI	Unchanged	In view of the uncertainty the <b>Precautionary Principle must apply.</b>

40	10.6.15 10.6.15 10.6.15	(Final sentences.) Progressive restoration to a land use consistent with rest of catchment will return the soil profile as soon as practically possible, while a minimum 2m epikarst recreation will allow continued CaC dissolution. In addition, drainage system will be maintained and water logging will be prevented by allowing storm event drainage to flow to the southern end of the quarry, as now.	Omitted.	Unchanged	What are the plans for progressive restoration?
41	-- 10.6.16 10.6.16		(New para.) The proposals do not include the removal or disturbance of any sinkholes or dolines and therefore will not affect concentrated recharge.	Additional wording with regard to the action to be taken in the event that any dolines or sinkholes are encountered in the extension area.	Welcomed
42	10.6.16 10.6.18 10.6.19	(Final sentence) It is therefore important to re-establish active soil management and agriculture good practice in line with surrounding fields to ensure that following the restoration of the site, residence times are returned to their pre-quarrying conditions.	(Final sentence) It is therefore important to re-establish active soil management and agriculture good practice in line with surrounding fields to ensure that following the restoration of the site, <b><i>soil based CO2 concentrations are established as soon as possible.</i></b>	Unchanged	

43	-- 10.6.38 10.6.42		(New clause) In the unlikely event that discharge needs to occur to the sinkhole close to the southern end of the quarry, this will only be done under controlled conditions and if the water minimal suspended soils (?)	Unchanged	
44	-- 10.8.5 --		(New clause) Given that an ongoing basis groundwater level data is of limited value in a karst setting, a revised groundwater monitoring network, based on the boreholes already installed and operating at the quarry will be agreed with the MPA prior to works commencing.	Clause omitted	Why is clause omitted?
45	-- -- 10.8.17			(New clause) Annual reporting will be produced ... will include, but not limited to ...	Is this frequency acceptable?
46	10.9.1 10.9.1 10.9.1	(Bullet point 3) The calculated slow flow catchment area extends to 1.94km <sup>2</sup> and the proposed extension represents 6% of the catchment	(Bullet point 3) The calculated slow flow catchment area extends to <b>1.9km<sup>2</sup></b> and the proposed extension represents <b>4%</b> of the catchment	Unchanged	Which is the correct area? Again casts doubt on other figures in the application.

47	-- 10.9.1 10.9.1		(Bullet point 5) Groundwater level data has been analysed and a seasonal high defined. This is less than 170m AOD, the base elevation of the proposed extension.	(Bullet point 5) Groundwater level data has been analysed and a seasonal high defined. This is less than 170m AOD, the base elevation of the proposed extension. <b><i>It is possible that a small area of the extension area could be affected by extreme high groundwater levels for short periods of time. This situation will be rare.</i></b>	Working this close to the water table is unacceptable particularly bearing in mind the scientifically accepted fact that global warming will lead to more frequent occurrences of extreme rainfall. <b>Precautionary Principle must apply.</b>  On what basis is the final statement offered?
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**PART 3 - ENVIRONMENTAL STATEMENT – CHAPTER 10A – TECHNICAL ANALYSIS**

Comments on v.3 of the document

Where wording has been altered (as opposed to omitted or inserted) it is in italics and bold

	<b>Paragraph v.1 v.3</b>	<b>Original version v.1</b>	<b>Revised version v.3</b>	<b>NPC comment</b>
48	-- 2/2		Additional 5 paras including Table 1	
49	3.2.1 3.2.1		Additional Table 4	
50	3.3.1 3.3.1		(Para 3.) Additional sentence <b><i>“It should be note that a site inspection on 11 January 2018 identified that the culvert had been squeezed and the vertical diameter is smaller than the horizontal (Figure 6), particularly at the discharge end”</i></b>	
51	3.3.2 3.3.2		Additional sentence <b><i>“The monitoring has not been designed to resolve the accretion flows down the Slade Brook valley, or assess the relative or absolute contribution from the northern and southern tributaries.”</i></b>	Why not?
52	3.3.3 3.3.3		(Additional final para.) <b><i>“Envireau Water have undertaken a detailed and systematic review of the data which is described below. The conclusions of that review are that while there are gaps in the data, the majority of the data that has been collected records correct data and measures the correct flow at the time of measurement.”</i></b>	An admission of gaps in the data and the conclusions are therefore simply opinions
53	3.3.3 3.3.3	Measurement of High Flows (paras 2 & 3)	Omitted	Why omitted?

54	3.3.4 3.3.4		(para 1) Additional final sentence “The data recorded by the replacement sensor is presented in Figure 5, with the historical data recorded, as a means of comparison”.	
55	3.3.4 3.3.4	“A total of 94,936 data points...is available for data evaluation and analysis. This equates of approximately 60% of the dataset”	“A total of <u>94,848</u> data points...is available for data evaluation and analysis. This equates of approximately 60% of the dataset”	
56	3.3.5 3.3.5		Complete section re-written with the exception of the 1st para. <b><i>“The assessment has gone through several analytical stages following feedback from the Environment Agency and Natural England regarding the analysis and validity of the data. Review of the data by the EA and NE during previous planning applications raised concerns that the spread and trends within the dataset appear false, incongruent and disjointed, and as such raised questions regarding historic validity and analysis of the data. The data has been concentrated on understanding and if possible addressing these issues”</i></b>	Concerns expressed by EA & NE – no evidence that they have been addressed.
57	4.1 4.1 (para2)	“The catchment defined has an area of circa 4.46km <sup>2</sup> ”	“The catchment defined has an area of circa <u>12.6km<sup>2</sup></u> ”	Do they actually know the area they are talking about?
58	4.3 4.3		(2 new paras.) <u>“The shape of the catchment is somewhat arbitrary, in that it is not possible in a karst catchment to be precise about a catchment boundary. However, the area of the catchment must be balanced with the recharge and the discharge (assuming no change in storage in the long term or on annual basis.</u>	The admission that it is not possible to be precise and thus the conclusion is simply an opinion.

			<u>Envireau water consider that the slow flow catchment shown on Figure 17 is a fair representation and is appropriate within the context of assessing the risks associated with the proposed development, particular to the Slade brook SSSI.</u>	
59	-- 5/5		(new 3 <sup>rd</sup> para.), final sentence: <u>"It is recognised that there are significant gaps in the data set."</u>	
60	5/5 (final para) 5/5 (final para)	"The quarry extension area (as opposed to the planning red line boundary) covers an area of 0.12k <sup>2</sup> and is within the slow flow groundwater catchment to the Slade brook. The quarry extension area therefore re4presents circa 5-7% of the slow flow groundwater catchment."	"The quarry extension area (as opposed to the planning red line boundary) covers an area of 0.073km <sup>2</sup> and is within the slow flow groundwater catchment to the Slade brook. The quarry extension area therefore represents circa 3.5-4.5% of the slow flow groundwater catchment."	Do they actually know the area they are talking about?

## **PART 4 - ENVIRONMENTAL STATEMENT – CHAPTER 10E – RISK ASSESMENT TABLES**

The complete section has been re-written. They have adopted the traditional method of analysis ie grading “magnitude of impact”, “likelihood of occurrence” and “significance of effect” to produce the overall “risk assessment”.

What is concerning is that under every hazard heading they have graded the Risk Analysis as either “none”, “very low”, “low” or “medium” which results in a residual risk, after mitigation of:

- “none in 1 case,
- “very low” in 15 cases
- and – at worst – “low” in 4 cases.