
From: Curley, Jane
Sent: 02 May 2023 15:10
To: Planning Comments (SMDC)
Subject: FW: Further objections arising from the Quarry 3 instability and dangers / the lagoon and safety regulations in respect of SMD/2019/0646 and SMD/2022/0014

Categories:

Jane Curley (Mrs)
Senior Planning Officer (Majors & Commercial)

From: Sheila Walters
Sent: 16 April 2023 20:47
To: Curley, Jane
Cc: Stokes, Andrew; Roberts, Paul (CLLR)

Subject: Further objections arising from the Quarry 3 instability and dangers / the lagoon and safety regulations in respect of SMD/2019/0646 and SMD/2022/0014



Dear Mrs Curley,

Further objections arising from the Quarry 3 instability and dangers / the lagoon and safety regulations in respect of SMD/2019/0646 and SMD/2022/0014

Following on from an earlier email regarding your position on the lagoon in quarry 3 i.e. that it is not a reservoir according to Mr Acland from the EA , I would assume therefore that you are now acting upon the applications as if they are subject to the requirements the Quarries Act 1999 and that the body of water within the quarry qualifies as a quarry tip.

This brings with it a number of additional points that we feel you must address before considering the applications 0646 and now 0014.

I was reminded from my files that I have sent you a letter on the 21st February 2021 which I hope you have arranged as to be filed as an objection to those applications. However 0725 has since been withdrawn so all the documents and correspondence about it have likewise disappeared from your consideration. As that has now been replaced by SMD/2022/0014 which has the same purpose and involves the same lagoon, it seems only proper that the arguments made in the email of the 21st Feb 2021 should be aired once again and filed as an objection to it. I should be grateful therefore if you would arrange for the copy of this email below to be filed accordingly.

However on reviewing the original email and in view of the findings of the Wardle Armstrong report (WA) that you commissioned last June on the instability within the quarry, I think it is important to look again at those arguments in the light of the WA findings to see how matters have now moved on and the fact that you appear now to be dealing with the applications as a quarry lagoon and not a reservoir.

As you will no doubt be aware the 1999 Quarries Act itself is accompanied by an Approved Code of Practice and Guidance produced by the Health and Safety Executive (second edition 2013) and the references quoted below are from both documents where applicable.

The Approved Code of Practice or ACOP has legal status as if you follow its advice you are complying with the law. I have also compiled this letter with reference to Minerals Planning Guidance 5: Stability in surface mineral workings and tips and The Mines and Quarries (Tips) Regulations 1971 which are also relevant and the NPPF para 178 with regard to unstable land and planning development.

It is well worth considering all the legislative conditions that govern having a body of water that is so integrated into the scheme and how that adds to the risk factor when it comes to stability and safety.

If it is not classed as a reservoir which has its own list of restrictions, then the lake in the quarry 3 application in 0646 and 0014 qualifies as a quarry lagoon or under the quarry regulations, it is a tip, as water is considered by Regulation 30 of the quarry safety guidance document which defines it as such, classing all tips, including stockpiles and lagoons under the same requirements.

The regulation is to ensure that people, whether working at the quarry or not, are not put at risk because of unsafe excavations or tips. In particular, those in or near the quarry should not be at risk due to the collapse of a quarry face or from the movement of all or part of a tip.

The stability of quarry 3 and its lagoon is therefore imperative and the issue of the proximity of the new locations for the lodges to the water's edge plus the additional earth moving required to accommodate them and the institution of the additional roadways and the building of the bridge, items which were not included on the original outline plans, must be a new concern.

To reiterate some earlier points

Within the rules then there are distinct definitions and descriptions of measures that must apply here.

The appraisals and assessments below are tools to ensure this general objective of safety is achieved..

1. All tips or, as in this case in quarry 3, lagoons, qualify; no matter size they are, what material they are made from, where that material comes from or what happens to it later. Tips used for refilling the excavation (here the water that has flooded in after excavation) or for landscaping the site after extraction, stockpiles of materials for later processing or sale, amenity and soil bunds, are all covered by the same rules.

2. Excavations include any place where the minerals are or have been extracted, in particular the ground or floor of the quarry, the faces and sides of the quarry and any other incline, for example when making access roads and cuttings such as are going to be used according to the plans before you, for various movements of materials in cutting and filling and foundation work anywhere in Moneystone quarry. However in particular, the regulations stress that attention should be paid to those activities in a quarry where the water is stored and where the stability issues and risks are more intense.

3. With reference to para 268 of the Health and Safety guidance, it states that where material is extracted from beneath water, the edge may collapse into the excavation without warning. The area liable to be affected should be treated as a danger area (regulation 22 gives more information about danger areas).

That may be a problem for the creation of the lodges themselves but you must also consider that once constructed and open for use by the public, those edges will still be vulnerable areas, particularly at the verge of water-filled excavations, which may collapse under the weight of people or equipment; and places where there are materials which behave like quicksand and could drown people.

4. In this instance where there is no underwater profile information or up to date survey of conditions prevailing at the immersed interfaces of those parts of the old excavations that cannot be seen anymore, and where saturation may have weakened the stress values of the matrices, those levels of old benches and faces have to be factored in as part of the overall feasibility consideration for the whole idea locating lodges at lakeside and on the slopes above .

5. The regulations require identification of significant hazards and appropriate checks/ inspections eg where the bottom of the excavation is more than 30 m below any surrounding land within 30 m of the perimeter of the excavation (ie the excavation is more than 30 m deep, allowing for any nearby higher ground); or irrespective of the excavation face height, depth or angle, other factors, for example the geology, location or proximity of a tip, mean that there is a significant hazard as described in paragraphs 293–295 of the regulations.

These are clearly matters for you to consider and check whether they have been evidenced sufficiently in the documentation before you.

I suspect not .

For example para 311 states that

Excavations and tips that constitute a significant hazard (see paragraphs 293– 295) must be subject to geotechnical assessment at least once every two years. The date by which the next geotechnical assessment is to be carried out must be specified in the geotechnical specialist's report.

I do not recall that being present and I believe I have pointed out to you already that the assessment report submitted by Abbeydale in 2018 which is a summary of all their earlier reports is out of time.

Neither has any bathymetric profiling been carried out or are there any subsurface plans to show the profiles and conditions operating below the edges where the lodges and roads are to be placed.

As far as I know there have been no health and safety checks carried by the HSE ever since Laver took over ownership. even though there is a general duty on the site operator to ensure the safety of quarry excavations and tips; and that once abandoned, the quarry is left in a safe condition, as required under the Quarries Regulations 1999.

General planning guidance in association with the NPPF states that although the primary responsibility for the safety and stability of the quarry rests with the owners / operators ie Laver Leisure, where development is proposed in or near the slopes of abandoned quarries or tips, local planning authorities should seek information from applicants in respect of stability reports prepared by a competent person.

The layout of such development will need to be considered in relation to the stability of nearby slopes and the necessity for and feasibility of any necessary stabilisation measures.

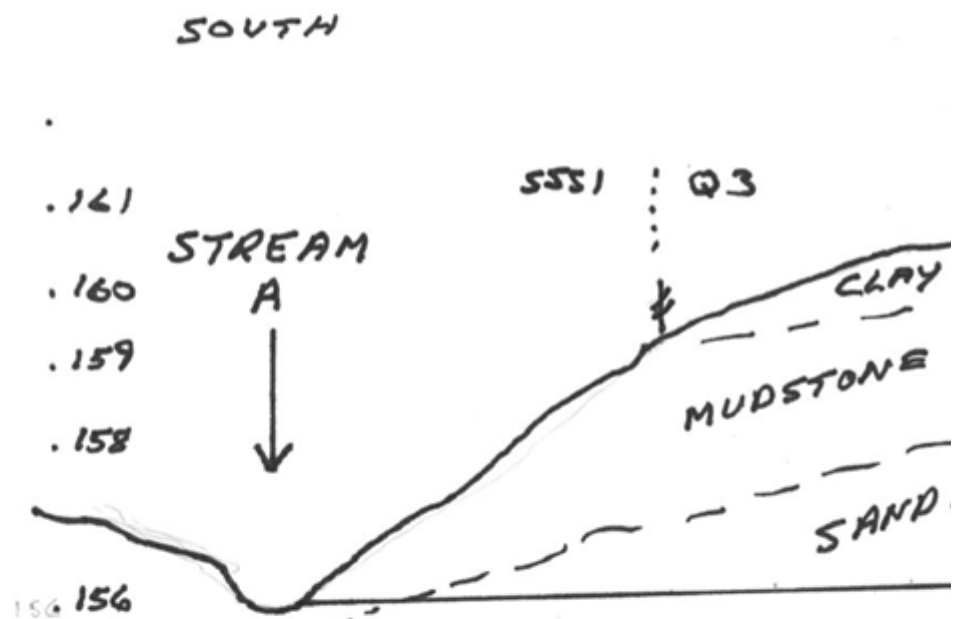
Development on back- filled workings and tips will also need to consider the potential effects of differential consolidation of the fill/tip material as well as any potential effects on slope stability.

All of these factors are present at Moneystone quarry 3 with the added problem of the presence of so much water water.

Obviously you have addressed some of the issues (according to the guidance in PPG 14 Development on unstable land and in PPG 14 Annex 1 Landslides and planning; advice on the consideration of potential contamination of such sites in PPG 23 Planning and pollution control) by commissioning the WA report and we await how the developers will respond to their recommendations.

However that response will require further submissions as those geotechnical assessments submitted so far are not sufficient to pass muster lacking as they do for example in SMD/2022/0014 where the problem is derived from the inadequate quality of information provided by Abbeydale BEC, and its suitability for purpose as exemplified by comparing the required technical information profile and quality of cartographic draughtsmanship under regulation 33 of the HSE guidance, to that in the submission as a support document for the proposed new outfall spillway (ref application SMD/2022/0014) also provided by the same company, Abbeydale. and shown in the extract below :-

location shown in Fig 1. The cutting base/cut deep through the land bridge to match the lake level of 156m AOD the channel base sl length.



Long Section Fig

This quality of drawing or illustration is just not acceptable.

There is no sign of a proper standard of presentation that should be required for planning purposes; no legend or key, no proper scale etc.

It has the air of a rudimentary sketch and more to the point, the profile in this section drawing which purports to be of the same area, looks outwardly different to the reality on the ground.

It also falls short, as I 'm sure you will point out to them, that when dealing with land that may be unstable, the planning system must work alongside a number of other regimes and abide by their requirements, particularly where public health and safety at quarries are concerned.

Therefore the prescriptive nature of the regulations for geotechnical assessments that you have to consider amid all the other aspects of the applications, are as follows with regard to health and safety issues as detailed in the schedule below and must be attained.

Health and safety at quarries

Schedule 1 Content of geotechnical assessments

Regulation 33(1)(a)

Site survey

(1) An accurate plan which should be prepared on a scale not less detailed than 1:2500 showing –

- (a) the boundaries of the quarry or premises upon which the excavation or tip or proposed excavation or tip is or is to be situated;
- (b) the site of the excavation or tip or proposed excavation or tip;
- (c) any contiguous land or structures which might be affected by the excavation or tip or proposed excavation or tip; and
- (d) all mine workings (whether abandoned or not), buried quarry workings,

known cave systems, active or former landslips, springs, artesian wells, watercourses and other natural or man-made features including tunnel pipes or culverts which might affect the safety of the excavation or tip or proposed excavation or tip or which might be relevant for the purpose of determining whether excavation or tipping operations can be carried out safely,

which plan shall be contoured to Ordnance Datum Newlyn at a vertical interval not greater than 5 metres and orientated to and correlated with the Ordnance Survey National Grid and marked with squares corresponding to the 100 metre squares shown on Ordnance Survey sheets on the scale of 1:2500.

Site investigation

(2) A record of all relevant site investigation information including surveys, tests, boreholes and groundwater measurements made for the purpose of the geotechnical assessment together with the results of any testing including the strength of materials within and beneath the tip or within the excavated slope. The record shall include any known historical information relevant to the site investigation.

Cross-sections based on site investigation

(3) Sufficient accurate cross-sections on a scale not less detailed than 1:1250 of the site of the excavation or tip or proposed excavation or tip showing the existing ground surface and all relevant superficial materials and bedrock underlying the said site and –

- (a) any variation in the thickness, level or character of the superficial deposits and bedrock materials based on the site investigation; and
- (b) the position of any surface whether natural or manmade which may affect the safety of the excavation or tip or proposed excavation or tip.

There is in fact a combination of tip hazards that you have to consider in quarry 3 ; one is the excavated sides above water level and two the underwater lagoon, or if you prefer, just the total of both.

Which ever you choose, it is a daunting task.

Tips and the definition of hazards for a lagoon are also to be found in the guidance and the technical details that are required to be met.

for example :-

Para 300 The hazard should be treated as significant and the tip subject to a geotechnical assessment if it is, or will be:

a lagoon containing any liquid or material wholly or mainly in solution or suspension (ie likely to flow if not contained); and

- (i) the contents of the lagoon are more than 4 m above the level of any land which is within 50 m of its perimeter; or
- (ii) the contents of the lagoon exceed 10 000 cubic metres; or irrespective of the size of the tip, other factors, for example the geology, location or proximity to an excavation, mean that there is a significant hazard as described in paragraphs 293–295.

Tips and the definition of hazards for an excavation area ctd

Para 300 The hazard should be treated as significant and the tip subject to a geotechnical assessment if it is, or will be:

- (a) in a wholly or mainly solid state and not in solution or suspension (ie not likely to flow if not contained); and
- (i) the area of the land covered exceeds 10 000 sq m; or
- (ii) the height of the tip exceeds 15 m; or
- (iii) the average gradient of the land covered by the tip exceeds 1 in 12; or

para 301 The hazard should be treated as significant and the excavation subject to a geotechnical assessment where:

- (a) in the case of moderately weak or stronger rock:
 - (i) the vertical height of any individual face (see Figure 6) is more than 5 m; or
 - (ii) the overall vertical height of any adequately benched face or slope, measured from toe to crest , is between 15 m and 30 m, and the overall face angle is steeper than 1 horizontal to 1 vertical (45° to the horizontal); or
- (b) in the case of weak or very weak rocks and engineering soils, where the vertical height of any part of an excavation is more than 7.5 m, and the overall face angle is steeper than 2 horizontal to 1 vertical (27° to the horizontal); or

- (c) the bottom of the excavation is more than 30 m below any surrounding land within 30 m of the perimeter of the excavation (ie the excavation is more than 30 m deep, allowing for any nearby higher ground); or

(d) irrespective of the excavation face height, depth or angle, other factors, for example the geology, location or proximity of a tip, mean that there is a significant hazard as described in paragraphs 293–295.

Such fine details and solutions do not appear to have been addressed in the documentation submitted so far.

As SMDC has supposedly assumed the role as mineral authority from SCC for the purposes of dealing with these applications I think it is appropriate too to remind you as you take on this burden of technical responsibility and public safety in making your decisions, that Staffordshire County Council's own guidance advises that

- mineral planning authorities need to consider stability in relation to surface mineral workings and tips;
- local planning authorities need to consider stability in relation to development in, on or near abandoned surface mineral workings and tips; and that
- policies should outline the consideration which will be given to stability issues in considering mineral development and other development in, on or near to mineral workings and tips;
- consideration of apparently unrelated issues may require consideration of the potential effects on the stability of excavated or tipped slopes;
- where appropriate, planning applications and restoration/landscaping schemes should be accompanied by a design report prepared by a competent person which demonstrates that the perimeter slopes and any internal slopes remaining after restoration will remain stable.

I'm sure you have already detected instances within the documentation with which you have been presented, that way back to 2012 aspects of the weaknesses alluded to above and identified in the matrices that either form the quarry faces or the engineered soils in the bunds, have been raised as concerns by the very geotechnicians who are now saying it is fine, when there is no evidence of substantial recent intensive fieldwork to back up their claims, or any proof of remediation works having taken place and even though the 2014 Environment Statement that was used for the support of the outline planning application/ permission, contains evidence of such weaknesses.

Fortunately too you do have the evidence from the recent WA report to back up the citing of these weaknesses and problems.

However from all the other shortfalls and absences of the required information that should have been supplied to you by the applicant and its agents, you can clearly see that there are serious flaws to the applications that must be addressed on a number of fronts.

Until these worrying shortcomings have been rectified and before you consider all the other safety factors and all the other arguments that per se mitigate against a decision to approve these reserve matters and the full applications associated with them, there is little point in progressing the applications further.

We will continue to monitor the files to see that all the above regulations are met in detail.

Please adopt this letter as another objection and put it on the appropriate files.

Thank you.

Yours sincerely

David Walters
Secretary
Churnet Valley Conservation Society
CVCS

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