

From: Angela Samuels [
Sent: 12 September 2019 14:47
To: Rob Smith
Cc: Robert Staniland
Subject: NYCC LLFA Response to Phase 11

Hi Rob

Please find attached letter from Sirius Minerals in answer to NYCC LLFA response to the Phase 11 conditions discharge application.

Best regards

Angela Samuels

Land, Environment and Planning Coordinator

Sirius Minerals Plc

A: Resolution House | Lake View | Scarborough | YO11 3ZB



 siriusminerals.com    

 poly4.com  

BY EMAIL rob.smith@northyorkmoors.org.uk

Our Ref: 40-SMP-AUT-LE-0110

Mr. Rob Smith
North York Moors National Park Authority
The Old Vicarage
Bondgate
Helmsley
North Yorkshire
YO62 5BP

12 September 2019

Dear Rob

NORTH YORKSHIRE MOORS NATIONAL PARK AUTHORITY LETTER NYM/2019/0524/CVC DATED 12 AUGUST 2019 VERIFICATION CHECK OF CONDITIONS 4, 18, 29, 34, 45, 46, 47, 52, 57, 60, 64, 68, 70, 71, 73, 76, 79, 81, 87, 91, 92, 93, 94, 95 AND 97 OF PLANNING APPROVAL NYM/2017/0505/MEIA AT LAND AT WOODSMITH MINE (FORMERLY DOVES NEST FARM & HAXBY PLANTATION), SNEATONTORPE (MINEHEAD); UNDERNEATH 252KM2 OF THE NYMNP (WINNING & WORKING OF MINERALS); A CORRIDOR EXTENDING UNDERGROUND FROM THE EDGE OF THE NP BOUNDARY TO WILTON COMPLEX (MINERAL TRANSPORT SYSTEM); LADYCROSS PLANTATION NEAR EGTON, LOCKWOOD BECK FARM NEAR MOORSHOLM, TOCKETTS LYTHE, NEAR GUISBOROUGH (INTERMEDIATE SHAFT SITES); SITE WITHIN THE EASTERN LIMITS OF THE WILTON COMPLEX, TEESIDE (TUNNEL PORTAL)

This letter sets out the response of Sirius Minerals to a request for clarification from North Yorkshire County Council Lead Local Flood Authority, as referenced above. For each issue, the North Yorkshire County Council Lead Local Flood Authority's request is presented in blue text with the Sirius Minerals response following in black text.

The submitted documents demonstrate a reasonable approach to the management of surface water on the site and satisfy general surface water drainage principle.

The submitted MicroDrainage model results as part of the Surface Water Drainage Scheme shows flooding for the 1 in 20 year design flood event (construction) for pipe PH3-N-24.029 and also appears that the model run developed errors and should be corrected. It is also unclear which pipe this flooding relates to and what the impact of the modelled drainage flooding would be.

Full details of the MicroDrainage model and results are required to confirm that the surface water drainage proposals are adequate for the Phase 11 part of the overall development.

The graphs in Appendix C of the report show the detailed model output from the ponds/wetlands as follows:

- Pond A (PH3-N-1.036)
- Pond B (PH3-N-1.037)
- Pond C (PH3-N-1.038)

- Pond D (PH3-N-18.006)
- Wetland C (PH3-N-24.029)

For each pond/wetland the model outputs are presented on three graphs, as follows:

- The upper graph shows the flow rate in and out of the pond/wetland.
- The middle graph shows the outfall velocity from the pond.
- The lower graph shows the total volume of water within the pond throughout the storm event.

The graph referred to in the query is for Wetland C, which outfalls via a piped discharge into Pond A. During the construction phase, Wetland C provides drainage attenuation only and is linked to Pond A by a pipe with a constant invert level and with the same upper water levels. The velocity graph for Wetland C shows a turbulent section which indicates that the pipe between Pond A and Wetland C is backing up into the wetland. This also explains the turbulent section of the outfall flow graph. We believe this turbulent section is what has been incorrectly identified as an “error” in the model.

The spillway from Wetland C has not been constructed as, during the construction phase, it is not intended that surface water outfalls into the adjacent tributary; this is an operational phase spillway only. Therefore, the drainage model does not include the spillway and, when the wetland exceeds the maximum volume, the model will show it as flooding. This is stated on the model output. The total ‘flooding’ volume is 13.5m³ for the 1 in 20 return period, which explains why the Wetland C volume graph has no visible flat section on the curve, implying minimal flooding. The ponds and wetlands have been designed and constructed with a 300mm freeboard above the top of the maximum water level assumed within the drainage model. This freeboard is not included within the drainage model and, therefore, the total ‘flooding’ volume of 13.5m³ would be contained wholly within the freeboard, with no actual flooding occurring from the Wetland.

We trust that this response addresses the points of clarification raised by the Lead Local Flood Authority and that the relevant conditions relating to Phase 11 can now be partially discharged. As always, we would be happy to provide further clarification if required and would welcome a discussion to close out any outstanding points. If you have any further questions, please contact the undersigned.

Yours sincerely,

Robert Staniland
Manager – Planning & Environment