

The following comments are submitted on behalf of the supporters of Friends of Ringwood Forest (FoRF) which leads the No2PurpleHaze campaign. FoRF is a community driven interest group run by volunteers with >3,400 local, UK & international supporters. We are not quarry, restoration or planning experts. Our comments are, however, based on research conducted with assistance from industry experts & organisations.

Purple Haze South - About The Minerals

Purple Haze South appears, on paper, to be appropriate for DCC to consider when worked as an extension to the Purple Haze North site allocated by Hampshire, but not yet permitted (January 2014). However, in addition to the issues raised below with individual Site Assessment Criteria, there are specific risks regarding the minerals present which could rule out inclusion of the site in the Dorset Mineral Site Plan -

1. The assumed location, volume & quality of the minerals cannot be confirmed until detailed borehole evidence has been made available to the Dorset & Hampshire Authorities. While some borehole data is publicly available from the British Geological Society (BGS), this is understood to be from initial grid work drilling and not very close local data required for a higher level of certainty.
2. The assumed quality of the minerals is questionable. Industry evidence from nearby Blue Haze indicates that minerals extracted from the same geological strata as Purple Haze South have been of poor quality for building, e.g., the soft sand was almost too “soft” and with a high clay content. This resulted in low sales of soft sand to industry, the majority being used for local quarry backfill. It is a risk that the minerals present won't be of a high enough quality for building and would be used for non-construction purposes.
3. No dry working or restoration (Criterion C20) could prove impossible to achieve. Hampshire states that the more valuable minerals at Purple Haze North, i.e. the soft sand, lie above the water table (dry working) while industry (Quarry Plan - HM&WP Hearings 2012) asserts they lie below (wet working). The need for either wet or dry working will dictate quarry design and the volume of minerals available. Given its shared geology, this uncertainty applies equally to Purple Haze South. GWP (international hydrogeology consultants) have examined this concern and their report is available.
4. Natural England (NE) support for Purple Haze North (Hampshire) is conditional on the minerals lying above the water table. If industry's informed opinion that they lie below the water table is proven, NE's support in Hampshire could be withdrawn and planning permission refused. NE's support, if applied consistently and conditionally to Purple Haze South, would therefore also support dry working only. Neither Hampshire, where Purple Haze North is the strategic site for soft sand, nor Dorset has a fall-back plan should NE not support the sites.
5. Although borehole evidence could provide an indication of where water may be present, the position of the water table can only be confirmed by a full hydrology study. A study should be conducted as soon as possible because, for the above reasons, its findings could rule out both the Purple Haze sites (South & North). If left to the planning application stage, which is Hampshire's stated approach, the study outcome could also result in an avoidable financial cost for all interested parties and other sites may then need to be re-considered.

6. Already a narrow site, the volume of minerals available for extraction will be restricted additionally by the protection, buffer zones and/or bunds needed for, e.g., monuments, run-off & hydrology impacts affecting Ebblake Bog (SSSi/RAMSAR) and the River Avon catchment area (SSSi SPA), visitors to Moors Valley Country Park, the general public using Ringwood Forest for leisure/travel purposes and Verwood's mains water supply which runs north to south through the middle of Purple Haze. Further restrictions may arise from provision of a safe and easily accessible cycleway/footpath running parallel to the B3081 (Criterion C18).

7. Dorset will be dependent on operations being permitted at the adjacent Purple Haze North site (Hampshire). Related serious concerns and uncertainties about the minerals available from Hampshire's site are unresolved at January 2014 and are unlikely to be addressed until a planning application is submitted - for details see the original references within the Planning Inspector's Report (2013) for Hampshire's Minerals & Waste Plan.

Comments against Site Assessment Criteria

Criterion C1 - Impact on European/international designations

1. The findings of the early & full hydrology study, as mentioned above, will be necessary to determine the measures required to fully protect nearby Ebblake Bog (SSSi/RAMSAR) and the wider River Avon catchment area (SPA SSSi). There is risk for Dorset from Hampshire's approach towards such a study for Purple Haze North and also from the lack of an operator for both sites.
2. People will use alternative sensitive locations, such as the nearby New Forest National Park, when free public parking/access from the B3081 is removed. To determine mitigation, a study is needed to identify the people using this amenity area for many pursuits including orienteering, horse riding, cycling, walking and related activities.
3. An assessment of the cumulative effects of mineral working & waste management on the ecology of Ringwood Forest is needed before sites are finally selected for inclusion in the Mineral Plan.

Criterion C2 - Impact on areas used by Annex 1 bird species

1. As the Proposed Restoration method is "tbc", the reference to restoration as heathland cannot be guaranteed at this stage. An assessment is required covering at least the following: - geology & hydrology impacts, that no landfill would be used (the site is not nominated for this purpose) resulting in restoration at lower levels than the original topography, the water table issues outlined above and also any impact from the varying land contours for the site especially when these are taken into account in relation to the adjacent site and the surrounding area. All of these factors will affect the future habitats of present flora/fauna and not just the increased opportunities for Annex 1 bird species.
2. Whether the suggested long-term benefits to the ecology of quarry restoration to heathland would ever be realised is questionable. There are no local instances of successful quarry restoration to heathland which would take many years.

Criterion C4 - Impact on protected species

1. A bat study will be required. Moors Valley Country Park advise there are 5 different types of bats using this area and protection & mitigation actions will be required.
2. See also our comments for Criterion C2 which also apply here.
3. We will seek more information from DCC about the implications of NE licensing.

Criterion C6 - Impact on geodiversity

1. The geology underlying the entire Purple Haze site is considered academically "interesting" due to the unusual convergence of 3 types of mineral beds. A re-assessment for this Criterion might be required depending on the outcome of any DCC arranged visits.

2. We will also seek more information about DCC findings regarding any previous or future RIGS (Regionally Important Geological Site) type assessments. Should any RIGS type assessment be undertaken or have been undertaken, it is our opinion that due to the shared geology, collaboration with the Hampshire Authorities would be beneficial on any findings impacting development of the Purple Haze site.

Criterion C8 – What is landscape capacity to accommodate proposed development

1. Any development and subsequent restoration of Purple Haze will inevitably change the character of landscape, ecology & habitats. It could also be many years before the effects & benefits of full restoration are realised. We therefore believe there should be co-operation with Hampshire so that restoration plans are cohesive for both parts of the site. This is essential, not only because a single operator is likely to be appointed but also because of the sites' topography.

All we know about restoration of the sites at Purple Haze is:-

- Purple Haze South (Dorset): no landfill to be used to fill the quarry void so restoration will be at a lower level, Proposed Restoration method is "tbc", site hydrology is unknown, the location of the water table is relevant as are the varying contours across the site.
- Adjacent Purple Haze North (Hampshire): allocated as a reserve landfill, no proposal if landfill is not forthcoming except to restore to original levels, site hydrology is unknown, part of this site has a comparatively steep gradient likely to impact restoration either to original levels or, perhaps, as a managed water filled void.

2. The site assessment does not benefit from "... a landscape and visual assessment commissioned by Dorset County Council and carried out by consultants (LDA Design) in Summer 2009" Source: Minerals Core Strategy Pre-Submission Draft. A specific assessment should therefore be undertaken of the impact on any development & restoration plans of the site's varying contour lines (South & North taken together) and the relationship with those for nearby Watchmoor Wood and also leading onto the trails/tracks in the wider country park/forest.

3. It is unclear how the reference within this Criterion to considering restoration as a SANG fits with other suggested options such as lower level forestry/agricultural use which is believed to be the landowner's view. The lack of an operator is a risk.

4. Except in passing as a bridleway, no specific mention is made of the frequent equestrian use of tracks as the only approved Safe Route between Verwood & Ringwood. The British Horse Society should be approached to comment.

Criterion C9 – Impact on historic landscapes

1. No reference is made to the partial heathland areas present within the coniferous plantation which the Forestry Commission develops to increase biodiversity whenever stands of timber are felled. By the time operations commence, the area covered by partial heathland development activities is likely to have increased further. The associated investment will be lost unless these areas are considered specifically when planning restoration.

2. We are assured that the site was heathland prior to planting as a coniferous plantation. A re-assessment of the impact on historic landscapes would therefore be appropriate should the Proposed Restoration method be for anything other than to heathland.

Criterion C11 – Impact on archaeology

In supporting fully the A Criterion marking, we are concerned that Hampshire's approach to monuments such as Tumuli may vary from Dorset's. We believe the best possible approach for safeguarding the monuments present should be planned for Purple Haze in its entirety. An operator might otherwise opt for the most expedient and least costly approach.

Criterion C12 -Impact on hydrogeology or groundwater

1. No mention is made of protection measures for nearby Ebblake Bog (SSSi/RAMSAR) and the River

Avon catchment area (SPA SSSI); although for the latter a comment is noted about no related drains. We would therefore reiterate our previous comments that a full hydrology study is required and at an early stage in the planning process.

2. Iron content flowing into Ebblake Bog (SSSi/RAMSAR protected) is believed, though not yet proven, to come from pyrite present in the area. When pyrite is unearthed and exposed to air, its chemical composition changes. A full hydrology study would assist with determining the effects on Ebblake Bog if pyrite were found to be present.

3. Without a full hydrology study it is considered unlikely that an operator could determine either a quarry design or a restoration plan. The former because the passage of water through the site's geology layers might impact extraction methods (wet or dry working), and therefore the volume of minerals available, and the latter because eventual restoration involving any type of cap on an area where water appears to flow through freely to maintain Ebblake Bog as an acid mire might become adversely inhibited.

Criterion C13 – Impact on surface waters

Confirmation will be sought separately from DCC that all the springs and groundwater collection points present have been considered. Without a complete assessment, the impact on the surrounding area of any development/restoration which might change the course, chemical balance or flow of these natural occurrences may not be fully known.

Criterion C14 - Impact on flooding or coastal stability

Due to the amount of surface water & springs within the site and surrounding area, it is unclear how a full flood risk assessment can be completed without both a detailed hydrology study and an understanding of the site's quarry & restoration plans.

Criterion C15 - Impact on existing soils or land type (including BMV land)

1. The statement that any soil removed will be protected during working and able to be re-used on site is welcomed. However, depending on the chosen approach, subsequent restoration efforts could fail due to the possible presence of pyrite which generally peaks in the Parkstone Clay (present in or near the site). Oxidation when the deposits are exposed by quarrying produces noxious sulphates which can affect the growth of seeds & vegetation and therefore adversely affect restoration efforts. There are local examples of this effect, details of which can be provided.

2. The level of pyrite present at Purple Haze South is unknown; however the strata involved contain much pyrite elsewhere. We have seen stockpiles of minerals containing pyrite at the nearby Plumley Wood site which required urgent attention after exposure and have smelt the resultant noxious odours. The possible implications for visitors to Moors Valley/Ringwood Forest, however temporary they may be, are evident.

Criterion C17 - Impact on economic development

1. The impact on economic development cannot be complete as assumptions have been made about the site's as yet unknown development & restoration plans, nor have the associated risks, as commented on elsewhere, been considered.

2. These factors will affect jobs and therefore any employment related benefits - (i) any doubts about the minerals themselves, (ii) quarry & operational design taking account of wet or dry working, (iii) unclear restoration opportunities and (iv) the dependency on Purple Haze North (Hampshire) being permitted to operate.

3. In addition, an economic assessment is needed to consider - (i) the impact on visitors to Moors Valley Country Park/Ringwood Forest and therefore on the revenue streams of East Dorset District Council, the Forestry Commission and any businesses, such as the Golf Course, operating within the Park, (ii) the impact of operational disturbance and reduced visitor numbers on small local businesses dependant on visitors to the Park, e.g., nearby caravan parks, holiday lets or B&Bs, and,

(iii) the impact of disruption during any development/restoration phase to traffic flow along the B3081 on businesses operating from, for example, the nearby Ebblake Industrial Estate in Verwood.

Criterion C18 - Impact on Sensitive Human Receptors

1. Further studies are needed to assess the impact on:- (i) schools: two are nearby, one for Special Needs, (ii) visitors/tourist attractions: Moors Valley Country Park, the 3rd most visited Country Park in the UK with more than 800,000 visitors p.a., and (iii) recreational areas: see other comments for details
2. The site has high background air quality which must be protected. The site assessment should therefore outline the measures required to mitigate any adverse impact from dust or other air-borne particles on Ringwood Forest/Moors Valley Country Park and the surrounding area.
3. A safe and easily accessible cycleway & footpath running parallel to the B3081 will also be required as the tracks used by people travelling to/from work and schools will not be available throughout quarrying and until after subsequent restoration has been completed.

Criterion C19 - Impact on existing settlements

1. Verwood's mains water supply runs north to south through the middle of the Purple Haze site. Protective measures must be put in place to ensure no disruption to the supply. An assessment will also be required of the impact of these measures on both quarry and restoration planning.
2. No account appears to have been taken of the need to mitigate the significant traffic concerns relating to the B3081 as set out by DCC in Criterion C25.

Criterion C20 - Impact on airport safety

The statement "Site not to be worked or restored dry" raises significant questions about overall site suitability due to recorded contention surrounding the location of minerals, i.e. above/below the water table, which will dictate whether wet or dry working would be required.

Criterion C21 - Effects on cumulative impacts

1. An assessment of the cumulative impacts on Ringwood Forest & the surrounding area's ecology from all recent, current and planned mineral extraction activity, landfill, IBA (Incinerator Bottom Ash) management and any restoration undertaken, successful or otherwise, is also required.
2. Such an assessment would not only inform decision making but may also go some way towards preventing what is widely considered to be further and irreversible damage to the local ecology. It is considered prudent to complete such an assessment at an early stage of the site consideration process and it is hoped that the Hampshire Authorities would participate.

Criterion C25 - Are the access proposals acceptable

The DCC site assessment statements concerning traffic issues to be mitigated are welcomed as the access proposals will not be acceptable to local communities or anyone else using the B3081. It is questioned, however, whether the promoter alone will be able to give the required assurances that the widely held concerns expressed by DCC can be fully mitigated.

SUMMARY: There are many risks for Dorset arising from uncertainty about the minerals present, one lease still for sale for Purple Haze, one landowner or their agent for two sites, two authorities for adjacent sites with differing Minerals Planning approaches and at very different planning stages, one site having a dependency on the other, no common timetable, and all with an operator yet to be appointed. No doubt mitigation strategies can and will be developed and many of the issues outlined above can and will be resolved - but at what cost when the benefits from developing this site for Dorset, its people, their visitors, their businesses, their shared, cherished environment and, importantly, the legacy for future generations are all so very, very uncertain?