global environmental solutions

FLETCHER BANK QUARRY
RAMSBOTTOM

NON TECHNICAL SUMMARY

JULY 2013
SLR Ref: 403.00304.00047

Peel Environmental Limited
Marshalls Mono Limited

Marshalls
Creating Better Landscapes

PEEL ENVIRONMENTAL

EIA Quality Mark

This Environmental Statement, and the Environmental Impact Assessment (EIA) carried out to identify the significant environmental effects of the proposed development, was undertaken in line with the EIA Quality Mark Commitments.

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INTRODUCTION

1. This document comprises a non-technical summary ("NTS") of the Environmental Statement ("ES") that accompanies planning applications submitted in relation to land at Fletcher Bank Quarry.

2. Fletcher Bank Quarry is an active gritstone quarry that has been worked since the early 1880's. Within the boundary of the quarry is a large concrete products manufacturing facility operated by Marshalls Mono Ltd ("Marshalls"). Infilling with inert waste is taking place in the worked out northern part of the quarry and planning permission also exists for the operation of a construction and demolition waste recycling operation, together with the open composting of green waste.

3. The land to which the planning applications relate ("the application sites", see below) are owned by Marshals and Peel Environmental Ltd ("Peel"). Peel is a wholly owned subsidiary of the Peel Group, The Peel Group is one of the leading infrastructure, investment and real estate companies in Britain. Much of the Peel Group's assets and opportunities for further growth and investment are concentrated in north-west England. Marshalls is a wholly owned subsidiary of Marshalls plc. It is a market focused UK Group combining inspirational design and innovative products and services to aid the transformation of Britain's patios, driveways and urban and commercial landscapes. The Group manufactures and supplies landscape, driveway and garden products from a range of materials including concrete, natural stone, iron, steel, wood, glass and polyurethane, to the Domestic and Public Sector and Commercial end markets.

4. Peel and Marshalls have submitted two planning applications. The first seeks to revise the restoration scheme for the northern part of the quarry by increasing the height of infilling. The second seeks permission to construct and operate an Anaerobic Digestion (AD) plant within the central part of the quarry. The AD plant would process organic materials and generate renewable energy in the form of electricity and heat, which would be made available for the concrete products manufacturing facility, with surplus electricity being supplied to the local grid. The residual material from the AD process would be suitable to use as a soil improver/fertiliser.

5. Peel and Marshalls have identified their preferred partner for the development and operation of the AD plant as Tamar Energy Limited (Tamar). Tamar is one of the UK's first renewable energy business with an exclusive focus on AD. Within its first year, Tamar already has four plants in construction, with approximately 12 others currently in development.

6. This NTS has been prepared by SLR Consulting Limited. SLR is a multi-disciplinary environmental consultancy and is a registered Environmental Impact Assessor Member of the Institute of Environmental Management and Assessment (IEMA) and has achieved the EIA Quality Mark awarded by

IEMA[1]. A printed and bound copy of the ES can be purchased from SLR Consulting Limited. Paper copies of the ES can be obtained upon written request from SLR Consulting Limited at the following address:

Mr K Owen
Aspect House
Aspect Business Park
Bennerley Road
Nottingham
NG6 8WR

7. The ES is available in both hard copy and CD-ROM formats, for which a charge of £200 and £35 is applicable respectively. Alternatively, the planning authority will make a copy of the planning application documents, including the ES, available for viewing either at the Council offices and/or on the planning application pages of the authority website. In addition, a copy of the application (and ES) can be downloaded from Peel's website:

www.peel.co.uk/fletcherbank

PLANNING AND EIA

8. The Environmental Impact Assessment Directive (the 'EIA Directive') requires local planning authorities not to grant development consent unless they have first taken the environmental information into consideration, and they shall state in their decision that they have done so. In the UK, 'development consent' includes granting planning permission.

9. If an EIA is necessary, an ES must be submitted with the planning application. To comply with this law, the planning application for the developments at Fletcher Bank Quarry are accompanied by an ES.

10. SLR has agreed the scope of the EIA with Bury Metropolitan Borough Council ("Bury MBC") in a formal process called 'scoping'. This information, coupled with the applicant's experience of similar projects and consultations with key consultees, has determined the scope of the assessments undertaken.

THE SITE

11. Fletcher Bank Quarry ("the quarry") is situated on the eastern edge of the town of Ramsbottom, approximately 8 km north of Bury and 13 km north-west of Rochdale. The concrete products manufacturing facility is centred on Ordnance Survey grid reference SD 802 167, whilst the application sites are centred on SD 803 171.

12. The quarry straddles the administrative boundaries of Lancashire (County) and Bury (Metropolitan Borough). The boundary of the two authorities

[1] http://www.iema.net/eia-quality-mark

bisects the quarry in a north-south direction along the line of the former Bury Old Road.

13. Each development has a separate application site and each application site straddles the boundary between Bury and Lancashire. The extent of the applications sites, which are both situated within the northern part of the quarry, are illustrated on Drawing FBA 2/1 in Section 2 of the ES and repeated at the end of this NTS.

PROPOSED DEVELOPMENT

14. Section 3 of the ES provides details of the developments that have been assessed as part of the EIA. The overall layout of the proposed infilling operations and AD plant is shown on Drawing FBA 3/1 within that section and repeated at the end of this NTS.

AD Plant

15. The AD plant consists of four main elements:

- the main reception building housing the waste bunker, odour controls system and treatment equipment;
- the tank farm including the digester tanks, storage tanks and biogas tanks;
- the combined heat and power (CHP) engines and standby flare; and
- the service yard, weighbridges and offices.

16. There would also be ancillary equipment and apparatus, including a substation and electrical cabling and pipework from process building to the tank farm and potentially heat and power connections to the adjacent concrete products manufacturing facility.

17. The AD reception building would have a maximum height of 13m and would be a metal framed structure clad in plastic coated profiled steel sheeting. The lower elevations of the building would be constructed of brick or concrete. The tanks would have a maximum height of 18.5m. The facility would handle 45,000 tonnes per annum of by products from the food industry and also agricultural wastes. All waste handling and storage would take place within the proposed building.

18. As a worst case estimate it is calculated that the facility would generate 41 HGV trips per day which is slightly less than the current planning permission for the composting and recycling. A more realistic case calculates that approximately 27 trips per day would be generated by the AD plant.

Revised Restoration

19. The approved landform for the current infilling area would be a bowl with a flat area within the quarry. Further infilling with inert waste is proposed to recreate a landform in the northern part of the quarry that integrates more closely with the rolling nature of the surrounding topography. The proposed

landform would be similar to that which existed prior to quarrying. The revised restoration scheme would deliver landscape, biodiversity and accessibility enhancements.

20. Infilling would continue at a rate of 100,000 cubic metres (m^3) per annum and the total void would be around 950,000m^3. As such, the infilling operations and subsequent restoration works would be completed within the existing timescale set out in condition 2 of planning permission 43048 (dated 21 December 2036). Around 33 lorries per day would visit the site associated with the infilling operations.

21. An enhanced restoration is proposed which is designed to increase public accessibility to the site and increase biodiversity.

PLANNING POLICY

22. There is significant Government support for the development of renewable energy projects including AD plants. The 2011 AD Strategy and Action Plan notes that AD *"offers a local, environmentally sound option for waste management which helps us divert waste from landfill, reduce greenhouse gas emissions and produce renewable energy which could be used to power our homes and vehicles."*

23. This support at a national level for renewable energy schemes is reflected in the emerging Bury MBC Core Strategy.

24. In the current Bury MBC UDP both developments are located within the green belt, which extends over the whole of Fletcher Bank Quarry. Generally within the green belt very special circumstances must be demonstrated in order to justify development that affects openness. However the National Planning Policy Framework (NPPF) makes it clear that the generation of renewable energy may represent the very special circumstances necessary to justify the grant of planning permission.

25. The Greater Manchester Waste Plan has not allocated sites for inert waste disposal, but recognises a need for such sites, and suggests quarry restoration as one area where the shortfall in facilities could be met.

26. Policies within the development plan set criteria against which any application for development would be judged.

27. Planning policies relevant to the EIA are set out in Section 4 of the ES whilst consideration of how the applications accord with planning policy is set out in the Planning Supporting Statement.

HYDROGEOLOGY AND HYDROLOGY

28. A comprehensive assessment of the hydrogeology and hydrology at Fletcher Bank Quarry for the developments has been undertaken.

29. The main potential impacts of the proposed developments that have been identified are impacts on water quality. These potential impacts can be mitigated by good site design and working practices.

30. Appropriate 'Sustainable Drainage Systems' (often referred to by the acronym "SuDS") would be incorporated into the scheme to ensure surface water runoff from the proposed developments are managed in a robust and sustainable manner.

31. Thus, following review of the mitigation included in the site design and the specific mitigation measures identified in the hydrogeology and hydrology section of the ES (Section 5) the overall potential significance of impact to the water environment is assessed as acceptable and 'low to near zero'. As such no significant impact has been identified.

LANDSCAPE AND VISUAL IMPACT

32. The development proposals are situated in a "*Moorland Fringe*" landscape type that is already influenced by quarry and industrial development in this area, and in a site that is an existing quarry. The development footprint influences only a limited proportion of the wider landscape character types and areas within which it sits.

33. There would be no significant landscape effects associated with either the proposed additional infilling activity or the proposed AD plant. The developments would cause few, but noticeable changes to the landscape resource because of their location within the existing quarry. The proposed infill would change the topography of the northern part of the quarry; however this has been designed to reflect the local "*Moorland Fringe*" character. The AD plant would not introduce significant change to the existing landscape resource, comprising an industrial building to be constructed within an existing quarry which already has planning permission for recycling and composting activities, and an industrial character attributable to similar large scale permanent structures such as the Marshalls concrete products manufacturing facility.

34. There would be no significant visual effects associated with either the proposed additional infill or the proposed AD plant. The AD plant is set down in the quarry and upon restoration of the infill area would be well screened from all viewpoints in the surrounding study area. The additional infill would be carried out progressively in layers and utilise screening mounds around the perimeter. After final restoration of the infilling, the effects would alter from being neutral to beneficial.

35. In terms of the green belt designation, it is not considered that the development would constitute sprawl or encroachment into the countryside. The most visible aspect of the proposed development, namely the character of the restored infilling landform and associated land cover, would assimilate well into the local landscape and would not affect the openness of the landscape. The AD plant is much more concealed and located within the base of the existing quarry.

36. In relation to the other policies reviewed, the development incorporates good design, both into its siting and landscaping treatments, including adequate restoration to a beneficial afteruse and measures to conserve and enhance the character of the local landscape.

ECOLOGY

37. Both application sites are heavily disturbed by ongoing infilling operations. There are no locally important ecological receptors that would be affected by the scheme. At the site level, common species of breeding bird and brown hare may possibly be affected; however the development proposals are unlikely to significantly affect the local population of these species. Peregrine falcon may also be affected by the proposed infilling operations as this species has bred in the quarry in the past. This being the case, a spring survey for the peregrine falcon would be undertaken. If breeding is confirmed, site activities would be responsive to the presence of the species with the aim of complying with protective legislation, and to ensure its presence within the quarry in its widest sense, in the long term.

38. The habitats are of less than local value and are not considered to be critical to the maintenance of populations of locally occurring protected or UK BAP species. In the absence of any of the proposed mitigation and project design measures, including phased restoration, the development has the potential to cause significant impacts at the Local level.

39. Restoration and mitigation plans have been appropriately targeted in order that ecological value of the area is maintained at a minimum of current levels in the area, with a view to increasing the biodiversity value of the application sites and surroundings in the medium to long term.

40. With the inclusion of mitigating measures, the ecological impact assessment (contained in Section 7 of the ES) concludes that the residual effects to ecological receptors are not significant in the short or long-term.

NOISE

41. The potential noise impacts arising from the have been carried out with reference to British Standards, other government guidance, and conditions attached to an existing planning permission at the site. Noise issues relating to the operation of the proposed developments were considered at the nearest noise-sensitive properties surrounding the application sites.

42. The noise assessment has found that the noise generated by plant operating in the infill area would not exceed 55dB LAeq (1 hour) (free field) at any of the receptors assessed and Planning Condition 18 of the current planning permission (Ref: 43048) would therefore be met.

43. The noise generated by plant constructing screening mounds would also not exceed 70dB LAeq (1 hour) (free field) at any of the receptors assessed and Planning Condition 19 of Permission Ref: 43048 would also therefore be met.

44. The noise rating levels generated by the fixed plant at the proposed AD plant would lead to a positive indication that's complaints would be unlikely during the day at all five receptors assessed.

45. At night the results indicate that there would be a positive indication that complaints would be unlikely at Shipper Bottom Far and at Bye Road. At Moorside Farm and Green Hill the likelihood of complaint would be between marginal significance and complaints unlikely.

46. The cumulative noise generated by plant in the infill area, the AD plant, and HGV movements would not exceed 55dB LAeq (1 hour) (free field) at any of the receptors assessed and thus Planning Condition 20 of Permission Ref: 43048 would be met.

47. In view of the above, mitigation measures to reduce the noise impacts are considered unnecessary and consequently noise would not prove a material constraint to the proposed developments.

CARBON AND CLIMATE CHANGE ISSUES

48. Conventional power stations generate electricity from non-biogenic (fossil fuels such as coal, oil and gas) carbon sources. On combustion, carbon dioxide is released to the atmosphere resulting in a net increase in carbon (CO2e) emissions. Consequently, where energy from AD displaces energy generated from fossil carbon sources there would be a resultant reduction in carbon emissions.

49. A further source of carbon savings results from the diversion of biodegradable waste from landfill and the subsequent reduction in emissions of methane containing landfill gas. Methane is over 20 times more effective in trapping heat in the atmosphere than carbon dioxide.

50. Finally carbon savings associated with AD can be achieved through the resulting use of digestate as a fertiliser and the subsequent displacement of conventional compost and fertilisers which derive from energy intensive operations.

51. The treatment of organic wastes via AD can be considered to provide significant environmental benefit by displacing carbon intensive energy generation and by reducing the volume of waste landfilled.

52. As noted in Section 9 of the ES, it is estimated that approximately 30,000 tonnes per annum of carbon dioxide would be saved from the operation of the AD plant.

AIR QUALITY

53. The impacts of two CHP engines in addition to odour and dust associated with AD plant and continuation of inert filling have been assessed (Section 10 of the ES refers).

54. The impacts from combustion emissions from the CHP engines in terms of short term and long term impacts for nitrogen dioxide (NO_2), particulate matter with an aerodynamic diameter of less than 10µm (PM_{10}), carbon monoxide (CO) and benzene have been assessed using detailed dispersion modelling within bespoke computer software (AERMOD). This found that all impacts were considered to be insignificant with the exception of Annual Mean NO_2 where a minor adverse impact may be experienced at one receptor, Twine Valley Farm (R10).

55. The detailed modelling of odour emissions has shown that emissions at all receptors are below the level at which unacceptable offsite odours would occur and lower than associated with the consented open composting site.

56. A qualitative assessment of deposited dust impacts has considered the potential risk of impact from the continuation of inert infill and construction of the AD plant. By considering the baseline dust emissions, additional potential sources and frequency of exposure the risk has been determined to be insignificant.

57. Impacts on local air quality from traffic emissions have been screened out of further assessment as traffic generated by the proposed development is not predicted to change and would be below the criteria prescribed in relevant guidance (the Design Manual for Roads and Bridges) and therefore considered to be neutral.

58. The conclusion of the air quality assessment in the ES is that the proposed development would not have a significant impact on surrounding receptors and the development complies with the requirements of Bury and Rossendale Local Development Plans and Greater Manchester and Lancashire Council Waste Development Plans.

HIGHWAYS

59. The proposed AD plant would replace the existing recycling/composting operation currently undertaken on the site. Hence, the trip generation of the AD plant would be offset by that of the permitted composting and recycling operation.

60. Consideration of the trip generations for the AD plant (taken on a worst case basis) and permitted composting and recycling operation indicates that the proposal would generate slightly fewer vehicle movements than permitted by previous planning permissions. . The realistic scenario of around 27 trips per day generated by the AD plant is significantly less than the 42 trips assumed when planning permission was granted for the open air composting operations. Whilst the proposed AD plant would generate movements by five additional staff, the effects on trip generation are considered to be within any threshold by might otherwise be considered as a discernible or material change to traffic movements.

61. The trip generation associated with the proposed revisions to the restoration scheme has been determined to be similar to that of the current infilling scheme. On the basis that the existing planning permission for the restoration

does not have any conditions restricting traffic movements, and in view that the importation of inert waste for infilling would be completed in line with the current deadline of 2036, the proposals would not result in a traffic impact.

62. The geometry and highway safety performance of the local highway network around the quarry entrance has been assessed (refer to Section 11 of the ES). The geometric properties of the network are commensurate with the use by goods vehicle traffic, as evidenced by current traffic movements on the network, including those generated by Fletcher Bank Quarry. Moreover, there has been no pattern of accidents occurring within the study network over the previous five-year period that might suggest a deficiency in the geometry of the network or use of it by goods vehicles.

63. The proposed developments would therefore be adequately accommodated without any material detriment to the operation of the highway network and would not result in any unacceptable environmental effects.

CULTURAL HERITAGE

64. The potential impacts of the developments on buried archaeology and surrounding designated heritage assets have been considered in Section 12 of the ES.

65. The baseline study has shown that the area of the proposed development has been extensively quarried since the late 20th century, with the result that no direct impacts on buried archaeological remains are predicted. Non-designated heritage assets are recorded within the development site boundary by the Lancashire and Greater Manchester Historic Environment, however none are extant. No mitigation is therefore considered necessary in respect of archaeology.

66. The indirect impact assessment has considered the 'Zone of Theoretical Visibility' models produced for the AD plant and additional infill/landform restoration as part of the Landscape and Visual Impact Assessment. Slight and Adverse residual effects on the Holcombe conservation area are predicted in respect of the AD plant following completion of the landform restoration. Moderate and Beneficial residual effects are noted for the Grade II listed barn at Dry Gap Farm due to implementation of the landform restoration scheme. These settings effects are not regarded as unacceptable, and therefore are in keeping with national and regional/local policies on the protection and enhancement of the historic environment.