

Agenda

Planning and Regulatory Committee

Monday, 31 October 2022, 10.00 am
County Hall, Worcester

Notes:

Councillors are advised that letters of representation received from local residents in respect of the planning applications on this agenda will be available for inspection in the Member Support Unit 3 days before the Committee and in the meeting room from 9.30am on the day of the meeting

Planning Officers are available for up to 30 minutes prior to the start of the meeting to enable Councillors and the public to ask questions about the applications to be considered. This is not a part of the meeting itself but is an informal opportunity for anyone present on the day to clarify factual details about the applications, examine background documents and view plans that are on display

This document can be provided in alternative formats such as Large Print, an audio recording or Braille; it can also be emailed as a Microsoft Word attachment. Please contact Democratic Services on telephone number 01905 846621 or by emailing democraticservices@worcestershire.gov.uk

DISCLOSING INTERESTS

There are now 2 types of interests:
'Disclosable pecuniary interests' and **'other disclosable interests'**

WHAT IS A 'DISCLOSABLE PECUNIARY INTEREST' (DPI)?

- Any **employment**, office, trade or vocation carried on for profit or gain
- **Sponsorship** by a 3rd party of your member or election expenses
- Any **contract** for goods, services or works between the Council and you, a firm where you are a partner/director, or company in which you hold shares
- Interests in **land** in Worcestershire (including licence to occupy for a month or longer)
- **Shares** etc (with either a total nominal value above £25,000 or 1% of the total issued share capital) in companies with a place of business or land in Worcestershire.

NB Your DPIs include the interests of your spouse/partner as well as you

WHAT MUST I DO WITH A DPI?

- **Register** it within 28 days and
- **Declare** it where you have a DPI in a matter at a particular meeting
 - you must **not participate** and you **must withdraw**.

NB It is a criminal offence to participate in matters in which you have a DPI

WHAT ABOUT 'OTHER DISCLOSABLE INTERESTS'?

- No need to register them but
- You must **declare** them at a particular meeting where:
 - You/your family/person or body with whom you are associated have a **pecuniary interest** in or **close connection** with the matter under discussion.

WHAT ABOUT MEMBERSHIP OF ANOTHER AUTHORITY OR PUBLIC BODY?

You will not normally even need to declare this as an interest. The only exception is where the conflict of interest is so significant it is seen as likely to prejudice your judgement of the public interest.

DO I HAVE TO WITHDRAW IF I HAVE A DISCLOSABLE INTEREST WHICH ISN'T A DPI?

Not normally. You must withdraw only if it:

- affects your **pecuniary interests** **OR** relates to a **planning or regulatory** matter
- **AND** it is seen as likely to **prejudice your judgement** of the public interest.

DON'T FORGET

- If you have a disclosable interest at a meeting you must **disclose both its existence and nature** – 'as noted/recorded' is insufficient
- **Declarations must relate to specific business** on the agenda
 - General scattergun declarations are not needed and achieve little
- Breaches of most of the **DPI provisions** are now **criminal offences** which may be referred to the police which can on conviction by a court lead to fines up to £5,000 and disqualification up to 5 years
- Formal **dispensation** in respect of interests can be sought in appropriate cases.

Planning and Regulatory Committee
Monday, 31 October 2022, 10.00 am, County Hall, Worcester

Councillors: Cllr Ian Hardiman (Chairman), Cllr Martin Allen, Cllr Bob Brookes, Cllr Allah Ditta, Cllr Andy Fry, Cllr Peter Griffiths, Cllr Paul Harrison, Cllr Bill Hopkins, Cllr Tony Miller, Cllr Scott Richardson Brown, Cllr Linda Robinson, Cllr Chris Rogers, Cllr David Ross, Cllr Jack Satterthwaite and Cllr Kit Taylor

Agenda

Item No	Subject	Page No
1	Apologies/Named Substitutes	
2	Declarations of Interest	
3	Public Participation The Council has put in place arrangements which usually allow one speaker each on behalf of objectors, the applicant and supporters of applications to address the Committee. Speakers are chosen from those who have made written representations and expressed a desire to speak at the time an application is advertised. Where there are speakers, presentations are made as part of the consideration of each application.	
4	Proposed extraction of sand and gravel with restoration using site derived and imported inert material to wetland, nature conservation and agriculture (cross-boundary application) on land at Bow Farm, Bow Lane, Ripple, Worcestershire	1 - 220

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email: slewis@worcestershire.gov.uk

All the above reports and supporting information can be accessed via the Council's website

Date of Issue: Wednesday, 19 October 2022

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PLANNING AND REGULATORY COMMITTEE

31 OCTOBER 2022

PROPOSED EXTRACTION OF SAND AND GRAVEL WITH RESTORATION USING SITE DERIVED AND IMPORTED INERT MATERIAL TO WETLAND, NATURE CONSERVATION AND AGRICULTURE (CROSS-BOUNDARY APPLICATION) ON LAND AT BOW FARM, BOW LANE, RIPPLE, WORCESTERSHIRE

Applicant

M C Cullimore (Gravels) Ltd

Local Member

Councillor Martin Allen

Purpose of Report

1. To consider a County Matter planning application for proposed extraction of sand and gravel with restoration using site derived and imported inert material to wetland, nature conservation and agriculture (cross-boundary application) on land at Bow Farm, Bow Lane, Ripple, Worcestershire.

Background

2. In 2010, mineral exploration was undertaken at the proposed application site. Within the proposed extraction areas, the investigation identified sand and gravel deposits across the site with an estimated yield over 2 million tonnes. The exploratory investigation was focussed entirely upon land within Worcestershire.
3. The proposed development is a sand and gravel quarry where the surface site exceeds 25 hectares, and, therefore, falls within Schedule 1, Part 19 "*Quarries and open-cast mining where the surface of the site exceeds 25 hectares, or peat extraction where the surface of the site exceeds 150 hectares*" of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. For projects that fall under Schedule 1 of above Regulations, an Environmental Statement (ES) is mandatory.
4. In March 2018, the applicant submitted an Environmental Impact Assessment Scoping Opinion Request to both Worcestershire County Council and Gloucestershire Council. Both Councils adopted and issued a Scoping Opinion in May 2018. The Scoping Opinions set out what information should be included in the ES for the proposed development. The submitted Scoping Opinion Request indicated a potential mineral yield of approximately 2.2 million tonnes of sand and gravel. Since then, further investigation, technical assessment and the inclusion of mitigation measures have reduced the extraction boundary previously proposed, resulting in an estimated

mineral yield of approximately 1.5 million tonnes, which was further reduced to approximately 1.44 million (1,441,052) tonnes as the applicant is now seeking to retain all veteran trees across the site.

5. The application site straddles the administrative boundaries of Worcestershire and Gloucestershire. The Government's Planning Practice Guidance (PPG) (Paragraph Reference IDs: 22-034-20141017 and 14-011-20140306) states that if an application site is on land that falls within the boundary of more than one local planning authority (straddles one or more local planning authority boundaries), then identical applications must be submitted to each local planning authority, identifying on the plans which part of the site is relevant to each. Consequently, parallel applications have been submitted to both Worcestershire County Council and Gloucestershire County Council. The majority of the mineral extraction is proposed within Worcestershire, with the proposed processing plant site and access onto the A38 within Gloucestershire (Gloucestershire County Council Ref: 19/0081/TWMAJM). This report focuses on the impacts within Worcestershire, although reference is made to the development in Gloucestershire and matters for the consideration by Gloucestershire County Council are highlighted.

The Proposal

6. The applicant is seeking planning permission for proposed extraction of sand and gravel quarry with restoration using site derived and imported inert material to wetland, nature conservation and agriculture (cross-boundary application) on land at Bow Farm, Bow Lane, Ripple.

7. The application site straddles the administrative boundaries of Worcestershire and Gloucestershire. Parallel applications have been submitted to both Worcestershire County Council and Gloucestershire County Council. The majority of the mineral extraction is proposed within Worcestershire (with only approximately 40,000 tonnes of mineral extraction taking place in Gloucestershire derived from creation of the proposed silt and clean water lagoons), with the proposed processing plant site and access onto the A38 within Gloucestershire (Gloucestershire County Council Ref: 19/0081/TWMAJM).

8. The proposed development is seeking to extract approximately 1.44 million tonnes of sand and gravel, that would be extracted at an estimated rate of approximately 250,000 tonnes per year. The maximum depth of extraction in Worcestershire would be 7.5 metres and 9.5 metres in Gloucestershire to create the silt lagoons. It is estimated that the site would be exhausted of mineral and restored within 9 years of the commencement of the development. The applicant states that this 9-year period can be subdivided into the following activities: the extraction is anticipated to take between 6.5 to 7 years. Site set up and mobilisation is expected to take approximately 3 to 6 months. To complete infilling / restoration is anticipated to take 1 year and a margin of error of 6 to 9 months to allow for market fluctuations, and delays to site operations due to climatic conditions.

9. The site would be progressively restored using a combination of site derived soils, overburden and imported inert waste material. The application submission defines imported inert waste as *"including uncontaminated or treated sub-soils, as well as construction, demolition and excavation waste such as, but not limited to concrete;*

bricks; tiles; and ceramics that will not undergo any physical, chemical or biological transformations of significance and will not give rise to environmental pollution or risk harm to human health as a result of coming into contact with other matter”.

10. Approximately 1.4 million tonnes of inert waste material would be required to return large areas of the site (proposed linear Phases 1 to 9) back to pre-extraction levels. The estimated annual rate of disposal would be about 165,222 tonnes per year. The applicant states that it would not be necessary to import topsoil for restoration purposes. Restoration would take place progressively as mineral extraction advances through the application site, seeking to restore the site to wetland, nature conservation and agriculture.

11. The applicant states that compared to the current baseline, the proposed restoration scheme would result in the replacement of over 25 hectares of lower-grade agricultural land with biodiversity and nature conservation gain. This would be largely directed towards the proposed Flexible Working Areas A and B, adjacent to the River Severn. The proposed nature conservation area would comprise a mosaic of wetland grassland, scrapes and shallows and open water.

12. Access to the site is to be gained via the A38 in Gloucestershire, to the east of the application site. The route provides direct access onto the M50 Motorway (Junction 1).

13. Preliminary operations at the site would commence in Gloucestershire with the establishment of the site access. An internal access spanning approximately 300 metres by 7.3 metres wide and constructed from concrete would be constructed between the proposed processing plant site and the A38 junction, lined by a grassed bund measuring approximately 1 metre high to mitigate noise and dust impacts resulting from HGV movements.

14. The internal access would cross the route of an underground oil pipeline and a redundant pipeline, both running north to south between the proposed site access and proposed processing plant site in Gloucestershire. The applicant states that a short bailey bridge would be constructed over the location of the pipelines to maintain their integrity throughout the duration of works.

15. Following establishment of the proposed site access, soils and overburden would be stripped within the footprint of the proposed processing plant site area in Gloucestershire. The applicant states that the processing plant site location has been chosen due to its position within Flood Zone 1 (low probability of flooding) and scope for natural screening by the topography of the land and existing established vegetation. The applicant goes on to state that to further enhance screening of the processing plant site, stripped soils and overburden would be stored in separate grass-seeded bunds, located around the boundaries of the processing plant site, with gaps for access and egress. Along the northern, north-western and eastern boundaries of the plant site, the proposed topsoil bund would measure approximately 3 metres high. In addition, atop the northern and north-western bunds the applicant is proposing a close-boarded acoustic fence, measuring approximately 1 metre high. Along the south-eastern boundary of the plant site, the overburden bund would measure approximately 5 metres high. Along the western boundary of the plant site, the overburden bund would measure approximately 4 metres high. Topsoil bunds measuring approximately 1 metre high would enclose the silt ponds.

16. Once established, the proposed processing plant site would comprise a screening and wash plant (mineral processing plant), concrete batching plant and silos, weighbridge, wheel washing facility and lorry sheeting area, weighbridge office, welfare office, store, and staff and visitor car parking.

17. The screening and wash plant would measure approximately 33.9 metres long by 98.6 metres wide by a maximum of 10.4 metres high. The concrete batching plant would comprise a number of elements, including a mixing tower, cement silos, batch cabin and aggregate storage bins. The maximum height of the batching plant would be 9.6 metres. The weighbridge office would measure approximately 10.5 metres long by 3.3 metres wide by 3.5 metres high. The welfare office would measure approximately 10.5 metres long by 3.3 metres wide by 2.8 metres high. The applicant has confirmed that all the above would all be coloured Leaf Green (RAL: 6002).

18. The applicant states that approximately 55% to 60% of the extracted sand and 40% to 50% of extracted gravel would be used as feedstock in the proposed onsite concrete batching plant located in Gloucestershire. However, it should be noted that the applicant states this is a broad estimate and subject to fluctuation depending on market demands.

19. A series of silt settling and clean water lagoons, with a maximum depth of 9.5 metres would be constructed adjacent to the processing plant site in Gloucestershire. These would be surrounded by a soil bund measuring approximately 1 metre in height and post and rail fence measuring approximately 1.2 metres high where they boarder Bridleway ATW37. Clean water from the lagoon would be used to supply the proposed mineral wash plant. Silt water from the wash plant would be piped to the silt settling lagoon. Following settlement of silt, clean water from the silt settling lagoon would be piped back to the clean water lagoon, thereby allowing a recycling of water throughout the life of the proposed quarry. To enable the construction of the lagoons and facilitate best use of the underlying mineral, approximately 40,000 tonnes of sand and gravel would be extracted. This comprises the total of mineral extraction proposed within Gloucestershire.

20. A below-ground foul sewage treatment plant would be installed in proximity to the welfare facilities in Gloucestershire. Treated waste would be discharged as clean water and pumped into the clean water lagoon.

21. A haul route constructed from Ministry of Transport (MOT) (the predecessor of the Department for Transport) Type 1 material (which is a crushed gravel no larger than 40mm), would be located between the proposed processing plant site in Gloucestershire and Phase 9 of the extraction area located in Worcestershire. The route would cross Bridleway ATW37 in Gloucestershire. The applicant states to avoid any need to divert or stop-up this public right of way, a concrete pad would be installed to safeguard the bridleway and retain access for recreational users. A series of warning signs would also be erected. A post and rail fence measuring approximately 1.4 metres high would run along the eastern boundary of the proposed haul route, for the safety of users of the bridleway.

22. An extended culvert crossing, and installation of a temporary single span bridges would be established over Ripple / Mythe Brooks to complete access between the proposed processing plant site and proposed extraction area.

23. Following the completion of the above preliminary operations in Gloucestershire, preparation works would commence for the proposed extraction of sand and gravel in Worcestershire across the nine linear phases and two flexible working areas.

24. Operations would commence in Phase 1, the most northerly extraction area. To expose the sand and gravel deposit, the overlying soils and overburden would be stripped in Phases 1 and 2 using a hydraulic excavator and articulated dump truck. Stripped topsoil and subsoils would be placed in grass-seeded bunds measuring approximately 1,480 metres long by 17.5 metres wide by 3 metres high along the eastern boundary of the site, adjacent to Bow Lane. The bunds would generally have an outward slope gradient of 1:2 with an inward slope gradient of about 1:1.5, except for the part of the bund in the north-eastern part of the site, which would have an outward slope gradient of about 1:4 for approximately 220 metres of its length (constructed up to the end of Phase 3) to reduce its engineered appearance from public vantage points in this location. The applicant states that whilst maintaining the integrity of the soils, the bunds serve a dual visual and acoustic screening barrier between the site operations and sensitive receptors along Bow Lane.

25. The applicant has confirmed that the entire eastern perimeter screening bund would be formed from soils stripped in Phases 1, 2 and Flexible Working Area A, the stock area in Phase 9, haulage and conveyor routes and in the construction of the interceptor ditch. The stripping of these areas at the outset of working would yield approximately 88,000 cubic metres of topsoil. The construction of the eastern perimeter bund requires approximately 56,000 cubic metres of topsoil. Overburden from Phases 1 and 2 (approximately 35,900 cubic metres) would be stored and placed directly in the mineral void in Phase 1.

26. The extraction of the mineral from and placement of inert waste materials into Phases 1 to 9 would require the excavation area to be dry and devoid of water. To achieve this, the applicant is proposing a below ground clay cut-off wall around the perimeter of the site to be implemented at the outset of working. The wall would key into the underlying weathered bedrock clay / mudstone to create an impermeable hydraulic seal between the Phase 1 to 9 excavation areas and the surrounding sand and gravel aquifer. At its widest point, the drain (clay cut-off wall) would be approximately 26.5 metres wide by 6.7 metres deep (across Phase 7 and 8); at its narrowest, it would be approximately 4.9 metres wide by 1.2 metres deep (Phase 4). The dimensions vary across the site depending upon the depth of the underlying clay into which the drain (clay cut-off wall) is keyed to create a seal. The applicant states that groundwater flow truncation caused by the impermeable cut-off being placed around Phases 1 to 9 would be mitigated using a groundwater interception ditch excavated to the base of the gravel on the eastern side of this perimeter (immediately to the east of the proposed bund, adjacent to Bow Lane). This would route water around the northern and southern sides of the excavation area to the western perimeter, where it would infiltrate through the base of the ditch into the underlying sand and gravel aquifer. This would maintain the pre-development balance of groundwater through-flow.

27. An overland conveyor would be constructed running along the western side of Phases 2 to Phase 9. Prior to its construction, topsoil would be stripped from along its route and the proposed stock area located in Phase 9. The conveyor would measure approximately 830 metres long, 1.6 metres wide by 1.2 metres high (the applicant

proposes that the final dimensions would be confirmed with the Mineral Planning Authority (MPA) via condition should planning permission be granted). The proposed colour would also be confirmed but the applicant has recommended that this would be matt and colour Leaf Green (RAL: 6002). The overland conveyor would connect to a portable radial conveyor in Phase 9, which would measure approximately 25 metres long by 1.6 metres wide by approximately 8.5 metres high (the applicant proposes that the final dimensions to be confirmed with the MPA via condition should planning permission be granted). Mineral extracted from Phases 1 to 6 would be placed on an overland conveyor for transport, limiting the requirement for the operation of dump trucks throughout the life of mineral extraction at the site. The as-dug material transported by conveyor would be stored within stockpiles (stock area) in Phase 9 and then hauled to the processing plant site in Gloucestershire by dump trucks.

28. The site area, soil and overburden quantities, estimated mineral reserve and duration of working Phases 1 and 2 are illustrated below:

Phase 1

Site Area: Approximately 3.2 hectares

Soils and Overburden: Approximately 21,434 cubic metres

Sand and Gravel: Approximately 150,113 tonnes

Extraction Duration: Approximately 8 months

Phase 2

Site Area: Approximately 4 hectares

Soils and Overburden: Approximately 22,180 cubic metres

Sand and Gravel: Approximately 179,238 tonnes

Extraction Duration: Approximately 10 months

29. The applicant states that the proposed scheme seeks to allow for 'flexible' working of Areas A and B. Flexible Working Areas A and B lie adjacent to the River Severn and are prone to flooding, particularly during the winter. The purpose of flexible working is, therefore, to allow the mineral operator the scope to extract from Flexible Working Areas A and B when ground and climatic conditions are suitable (envisaged principally during the summer months). To avoid the potential for cumulative effects, the flexible working areas would not be worked simultaneously with linear Phases 1 to 9, although operations would likely be redirected from the linear phases during periods of suitable conditions. The flexible working areas are proposed to be worked wet (i.e., without dewatering).

30. The applicant states that subject to weather conditions, there is scope to work and restore Flexible Working Areas A and B at an early stage of the quarry operation. The flexible working areas provide the shallowest depth of the mineral resource and shortest anticipated duration of extraction operations. Topsoil would be stripped in Area A and stored in the eastern perimeter soil bund and a soil bund located along the southern boundary of Phase 9. Overburden from Area A would be used to restore Phases 1 to 3. Topsoil and overburden from Area B would be used in Area A for restoration purposes. Following the completion of working, Flexible Working Areas A and B would be restored using site derived soils and overburden only, thereby returning the land to a lower level than pre-extraction conditions.

Flexible Working Area A

Site Area: Approximately 7.5 hectares

Soils and Overburden: Approximately 260,640 cubic metres
Sand and Gravel: Approximately 57,801 tonnes
Extraction Duration: Approximately 5 months

Flexible Working Area B

Site Area: Approximately 5.2 hectares
Soils and Overburden: Approximately 160,569 cubic metres
Sand and Gravel: Approximately 26,785 tonnes
Extraction Duration: Approximately 2 months

31. Progressive restoration of Phases 1 and 2 would be undertaken as mineral extraction operations move into Phases 3 and 4. Mineral extracted from Phases 3 and 4 would continue to be transported via conveyor to the Phase 9 stockpile area. Topsoil from Phases 3 and 4 would be placed directly into Phases 1 and 2 and part of Phase 3 for restoration purposes. Overburden from Phases 1 to 4 and imported inert waste material used to restore Phases 1 and 2 and part of Phase 3.

32. Grass-seeded soil screening bunds would remain in place along the eastern boundary of the site, adjacent to Bow Lane as mineral extraction continues southwards through the site, although the soil screening bund adjacent to Phases 1 and 2 would be removed and used in the restoration of Phases 1 and 2.

Phase 3

Site Area: Approximately 4 hectares
Soils and Overburden: Approximately 22,860 cubic metres
Sand and Gravel: Approximately 122,140 tonnes
Extraction Duration: Approximately 7 months

Phase 4

Site Area: Approximately 3.2 hectares
Soils and Overburden: Approximately 33,023 cubic metres
Sand and Gravel: Approximately 100,719 tonnes
Extraction Duration: Approximately 5 months

33. Mineral extraction operations would continue to progress southwards through the site as previously worked phases are restored using a combination of extracted overburden, stored soils and imported inert materials. Topsoil from Phases 5 and 6 would be placed directly in a stockpile in Phases 3 and 4 or used directly in the restoration of Phase 3, subject to progress of inert waste infilling. Overburden from Phases 5 and 8 and imported inert waste material used to restore Phases 4 and 6.

34. Grass-seeded soil screening bunds would remain in place along the eastern boundary of the site, adjacent to Bow Lane as mineral extraction continues southwards through the site, although the soil screening bund adjacent to Phase 3 would be removed and used in the restoration of Phase 3.

Phase 5

Site Area: Approximately 2.8 hectares
Soils and Overburden: Approximately 21,706 cubic metres
Sand and Gravel: Approximately 133,452 tonnes
Extraction Duration: Approximately 7 months

Phase 6

Site Area: Approximately 3.4 hectares

Soils and Overburden: Approximately 21,207 cubic metres

Sand and Gravel: Approximately 192,212 tonnes

Extraction Duration: Approximately 11 months

35. As mineral extraction reaches the final stages of working, the mineral conveyor would be removed. Mineral extraction from Phases 7 and 8 would be transported to the plant site for processing by dump truck.

36. Topsoil from Phases 7 and 8 would be placed directly in a stockpile in Phases 9. Overburden from Phases 7 and 8 would be used in the restoration of Phases 4 to 6 together with imported inert waste material.

37. Grass-seeded soil screening bunds would remain in place along the eastern boundary of the site, adjacent to Bow Lane and Bow Farm as mineral extraction continues southwards through the site, although the soil screening bund adjacent to Phases 4 to 6 would be removed and used in the restoration of Phases 4 to 6.

Phase 7

Site Area: Approximately 3.2 hectares

Soils and Overburden: Approximately 24,071 cubic metres

Sand and Gravel: Approximately 165,966 tonnes

Extraction Duration: Approximately 9 months

Phase 8

Site Area: Approximately 2.3 hectares

Soils and Overburden: Approximately 29,618 cubic metres

Sand and Gravel: Approximately 103,457 tonnes

Extraction Duration: Approximately 6 months

38. Soils and overburden in Phase 9 would have previously been stripped during site preparation works, providing direct access to the underlying sand and gravel at the outset.

39. Stored topsoil from Phase 9 would be used in the restoration of Areas A and B. Overburden from Phase 9 would be used in the restoration of Phase 7 together with imported inert waste material.

40. Grass-seeded soil screening bunds would remain in place along the eastern boundary of the site, adjacent to part of Bow Farm as mineral extraction continues southwards through the site, although the soil screening bund adjacent to Phase 7 would be removed and used in the restoration of Phase 7.

41. Phases 8 and 9 restored using inert waste materials and the remaining stored topsoil.

Phase 9

Site Area: Approximately 4.5 hectares

Soils and Overburden: Approximately 43,656 cubic metres

Sand and Gravel: Approximately 212,169 tonnes

Extraction Duration: Approximately 11 months

42. Following the completion of mineral extraction operations, the proposed processing plant site and internal haul routes would be removed and largely returned to agriculture. The proposed silt settlement and clean water lagoons would be retained as wetland features. This would comprise a combination of reedbed planting and natural regeneration. The site access would be retained to provide long-term agricultural access into the site.

43. To mitigate effects of restoring the site with less permeable material (inert waste material), a surface water runoff management scheme is proposed which consists of a single elongated infiltration basin along the western boundary of excavation (Phases 1 to 9). The infiltration basin would measure approximately 1,040 metres long by 20 metres wide, with an average depth of approximately 2 metres. Although the longitudinal and cross-sectional profiles of the proposed attenuation feature resemble those of a ditch or a swale, it is described by the applicant as an infiltration basin as its primary purpose is not to convey flow but to store it and to enable infiltration. Excess runoff would be discharged from the infiltration basin (via an outflow orifice) into the infiltration basin proposed on the western perimeter of Phases 1 to 9.

44. It is proposed that the operating hours associated with the mineral extraction, processing and import / export of material would be between 07:00 to 18:00 hours Mondays to Fridays; 07:00 to 13:00 hours Saturdays; and no working on Sundays, Public or Bank Holidays.

45. It is estimated that the proposal would generate approximately 144 HGV movements per day (72 HGVs entering the site and 72 exiting the site per day), equating to approximately 13 two-way HGV movements per hour, or approximately 1 HGV movement in either direction every 5 minutes during a weekday. It is estimated that staff vehicular movements to and from the proposed development would be a worst-case scenario of approximately 40 vehicle movements per day (20 vehicles entering the site and 20 vehicles exiting the site per day).

46. With regard to internal dump truck movements, the applicant estimates that there would be approximately 50 internal dump truck movements per day within the site. Material would be transported between the proposed extraction and processing plant areas along the connecting haul road using 2 dump trucks operating rotationally.

47. The applicant has confirmed that imported inert material would be stockpiled within the plant site area and transported for deposit within the extraction area by dump truck.

48. The applicant has confirmed that the layout of the processing plant area is designed to ensure that HGVs can circulate through the site in forward gear, without any need for reversing manoeuvres. The exception to this is concrete mixers which have to spend a very short period of time reversing into the loading silo pad for overhead safety reasons and to ensure that the mixer gear always positions directly under the chute. The applicant has also confirmed that all site plant and machinery would be fitted with white noise reversing alarms.

49. The application is accompanied by an ES, which covers the following topics: alternatives, water environment and flood risk, ecology, landscape and visual impact,

noise and vibration, dust and air quality, transport and highways, archaeology and cultural heritage, soil resources and agricultural land classification, arboriculture, health and wellbeing and cumulative effects.

The Site

50. The application site, which is known as Bow Farm measures approximately 65 hectares in area and straddles the administrative boundaries of Worcestershire and Gloucestershire. Approximately 55.9 hectares is located within Worcestershire and 9.1 hectares in Gloucestershire. Approximately 43.3 hectares of land is proposed for mineral extraction. All of the land proposed for development is owned by the applicant, Moreton C Cullimore (Gravels) Ltd.

51. The application site is currently in agricultural use and comprises a number of field parcels, and lies in the open countryside of south Worcestershire, within Malvern Hills District, and north Gloucestershire, within Tewkesbury Borough, located about 1.3 kilometres west of junction 1 of the M50 Motorway and about 3.6 kilometres south-west of junction 8 of the M5 Motorway. The village of Twynning is located approximately 895 metres north-east of the application site red line boundary (about 1.7 kilometres north-east of the extraction area red line boundary); the village of Ripple is situated about 550 metres north of the proposal on the northern side of the M50 Motorway; the village of Church End is located approximately 310 metres east of the application site red line boundary (about 1.2 kilometres east of the extraction area red line boundary); and the town of Tewkesbury is located approximately 3.1 kilometres south-east of the site.

52. The land proposed for mineral extraction is bound to the north by the M50 Motorway (Queenhill Motorway Bridge) and to the east by Bow Lane. Land to the west has been previously worked for sand and gravel and has been restored, principally to a large waterbody (known as Ripple Quarry, MPA Ref: 407502, Minute No's. 67 and 92 refers). Beyond this, to the west, is the River Severn. To the south of the site is predominantly agricultural land. Puckrup Hall Hotel lies approximately 735 metres to the east of the extraction area red line boundary, and approximately 265 metres to the north of the proposed processing plant site and access red line boundary. The Golf Course associated with the Puckrup Hall Hotel is located approximately 140 metres east of the extraction area red line boundary, and approximately 15 metres north of the proposed processing plant site and access red line boundary, at its closest point. Church End Nursery is situated to the south of the proposed access road in Gloucestershire, fronting on to the A38, located approximately 55 metres south of the application site (approximately 785 metres south-east of the proposed extraction area red line boundary).

53. The topography of the area of land proposed for mineral extraction rises sharply along the eastern boundary to Bow Lane. Ground elevations along the eastern boundary are located at approximately 17 metres Above Ordnance Datum (AOD). Ground elevations decline to approximately 12.5 to 13.5 metres AOD for central areas of Phases 1 to 9, and further still to approximately 8.75 to 10 metres AOD within the flexible working area phases, adjacent to the River Severn.

54. The topography of the area of land proposed for the processing plant site is at approximately 15 metres to 16 metres AOD. Ground levels rise sharply to the east,

with the proposed access onto the A38 at ground levels of approximately 30 metres AOD.

55. Footpath RP-550 runs broadly north to south along the eastern side of the River Severn, adjoining Footpath Tewkesbury 49 (Footpath ZTE49) to the south. Footpaths BU-556 and BU-514 form part of the Severn Way, a long-distance footpath from the river's source to the sea, which runs along the western side of the River Severn in this location. Twyning Bridleway 37 (Bridleway ATW37) within Gloucestershire crosses the proposed haul road north to south. Twyning Footpath 34 (Footpath ATW34) also within Gloucestershire runs west to east from Puckrup Lane to the A38, to the north of the application site. A section of the proposed haul road crosses an area of registered Common Land (approximately 0.29 hectares) located in Gloucestershire and extends to form the southern boundary of the application site.

56. An underground Exolum Pipeline System oil pipeline and Defence Infrastructure Organisation (DIO) redundant oil pipeline run north to south through the application site on land between the proposed processing plant site and the access onto the A38 (within Gloucestershire). The pipelines are located outside the proposed extraction boundary. A 11kV overhead electricity lines crosses part of the site in Worcestershire, predominantly located in the north-east and south-east of the main extraction area (broadly Phases 1, 2, 3, 4, 6 and 7).

57. The application site spans all three flood zones as shown on the Environment Agency's Indicative Flood Risk Map. The land comprising the proposed Flexible Working Areas A and B are situated within the south-west part of the site are located within Flood Zone 3 (high probability of flooding). The land comprising Phases 1 – 9 situated within the eastern part of the site are predominately located within Flood Zone 1 (low probability of flooding), but also partially within Flood Zone 2 (medium probability of flooding) and Flood Zone 3 (high probability of flooding). Ripple Brook crosses the application site between the processing plant area and proposed mineral extraction.

58. The application site comprises Grades 2 and 3 agricultural land and, therefore, comprises, in part, Best and Most Versatile (BMV) agricultural land (Grades 1 to 3a).

59. There are a number of statutory and non-statutory wildlife designated sites within 3 kilometres of the proposal. This includes Windmill Tump Site of Special Scientific Interest (SSSI), which is situated about 1.1 kilometres south-west of the application site. Upham Meadow & Summer Leasow SSSI is located approximately 1.9 kilometres north-east of the proposal and approximately 2.9 kilometres north-east of the proposed extraction area red line boundary. Upton Ham SSSI is situated about 2.3 kilometres north-west of the application site. Old River Severn, Upper Lode SSSI and Severn Ham, Tewkesbury SSSI are located approximately 2.8 and 3.1 kilometres south of the proposal, respectively.

60. Ripple Lake & The Napps Local Wildlife Site (LWS) is located immediately adjacent to the application site (proposed extraction areas), along the western boundary of proposed Phases 1 to 9 and to the north of Flexible Working Area A. Ripple Brook LWS is located within the application site crossing the route of the proposed haul road within Gloucestershire (following the County boundary). The River Severn LWS and Ripple Gravel Pits (a restored former sand and gravel quarry which is locally important for wetland birds) form the western boundary of the site.

Queenhill Brickpit LWS is situated about 915 metres north-west of the application site. The River Avon LWS is located about 1.5 kilometres east of the application site and about 2.4 kilometres east of the proposal extraction area. Bredon's Hardwick Gravel Pit LWS is located about 1.8 kilometres south-east of the proposal and about 2.6 kilometres south-east of the proposal. Aggberrow, Sarn Hill & Voulter's Woods LWS at its closest point is located about 1.5 kilometres broadly south-west of the application site (proposed extraction area). Heath Hill Orchard LWS is situated approximately 2.5 kilometres broadly north-west of the proposal. Ley Farm Lake and Wood LWS is located approximately 2.7 kilometres broadly north-east of the application site (proposed extraction area).

61. Bredon Hill which forms part of the Cotswolds Area of Outstanding Natural Beauty (AONB) National Landscape is located about 4.3 kilometres east of the application site (about 5.2 kilometres east of the proposed extraction area red line boundary) and is also designated in part as a Special Area of Conservation (SAC) and National Nature Reserve. The Malvern Hills AONB National Landscape is located about 7.6 kilometres broadly to the west of the application site (proposed extraction area). Dixton Wood SAC is located approximately 9.8 kilometres broadly south-east of the application site and approximately 10.6 kilometres broadly south-east of the proposed extraction area.

62. In addition, the application site is hydrologically linked to the Severn Estuary Special Protection Area (SPA) and Special Area of Conservation (SAC) which are European designated sites. The Severn Estuary is also notified as a Ramsar Site (of international importance) and is also designated at a national level as the Upper Severn SSSI, located approximately 40 kilometres south-west of the site.

63. There are a number of Listed Buildings within the vicinity of the application site, this includes the Grade II Listed Building of Puck Cottage which is located approximately 50 metres east of the application site (proposed extraction area). The Grade II Listed Buildings of Bow Bridge Cottage and Barn (circa 10 metres north-east of Bow Bridge Cottage) are located on Puckrup Lane approximately 260 metres to the east of the application site. The Grade II Listed Building of Station House is located about 580 metres north of the proposal (proposed extraction area), with further Listed Buildings located beyond in the Village of Uckinghall. The Grade II Listed Building of Ripple Hall is located approximately 560 metres north of the proposal, with further Listed Building immediately beyond in the Village of Ripple, including the Grade I Listed Building of Church of St Mary.

64. Six further Grade II Listed Buildings (Barn, Barn and Pigsties, Stable Block, Puckrup Farmhouse, The Bothy, and Puckrup Hall) are situated about 680 metres east of the extraction area and 350 metres north of the proposed access haul road onto the A38 at their closest point. The Grade II Listed Building of Twyning Farm including Walled Garden and Dairy is located approximately 300 metres south of the application site and approximately 815 metres south-east of the proposed extraction area. Further Grade II Listed Buildings (Shuthonger Villa, Shuthonger House, boundary wall, gates and gate piers to Shuthonger House and Crown Cottage) are located beyond in Hamlet of Shuthonger. A number of Listed Buildings are located within the village of Church End including the Grade II* Church of St Mary Magdalene located about 1.4 kilometres east of the proposed extraction area and 510 metres from the application site. Further Listed Buildings are located on the western bank of the River Severn including the Grade II* Listed Buildings of Church of Saint Nicholas

and Pull Court, Screen, Archway and Gates located approximately 1.1 kilometre north-west and 760 metres west of the application site, respectively.

65. The closest Schedule Monument to the application site is that of Towbury Hill Camp, which lies approximately 255 metres to the east of the application site. Further afield are the Schedule Monuments of Ripple village cross, Cross north of St Mary's Church, and Uckinghall cross which are located approximately 1 kilometre, 640 metres and 660 metres north of the application site, respectively.

66. Church End Conservation Area is located approximately 1.2 kilometres east of the proposed extraction areared line boundary and 320 metres east of the application site. Ripple Conservation Area and Uckinghall Conservation Area are located approximately 475 metres and 740 metres north of the proposal, respectively.

67. The nearest Air Quality Management Area (AQMA) is Tewkesbury Town Centre AQMA, which is located approximately 2.6 kilometres south-east of the application site.

68. The site is in close proximity to a number of residential properties. Fairfield, which is owned by the applicant, is located approximately 15 metres north of the site access, with the curtilage of the property being located about 11 metres north of the access (approximately 860 metres east of the proposed extraction area red line boundary). Bow Farm Farmhouse, which is also owned by the applicant, lies approximately 50 metres to the east of the proposed extraction area red line boundary (about 100 metres from the proposed mineral extraction). A number of residential properties front onto Bow Lane to the east of the proposed extraction area, this includes Puck Cottage which is located approximately 50 metres east of the application site (about 80 metres from the proposed mineral extraction); The Threshing Bow is located approximately 60 metres east of the application site (about 90 metres from the proposed mineral extraction); Bow Cottage located approximately 80 metres east of the application site (about 115 metres from the proposed mineral extraction); and Bowfields located approximately 55 metres east of the application site (about 90 metres from the proposed mineral extraction). Dadsley Cottage and Bowbridge Cottage are located approximately 200 metres and 260 metres east of the application site, respectively (about 235 metres and 300 metres from the proposed mineral extraction, respectively). In addition, Padsview Stables is located approximately 85 metres east of the application site (about 120 metres from the proposed mineral extraction).

69. There are a number of residential properties, that lie broadly to the south of Puckrup Lane, including The Cider House, Puckrup Hall Farm Cottages and the Gardners Cottage, which lie approximately 300 metres to the north of the application site (approximately 650 metres east of the proposed extraction area red line boundary). Silvermead is located approximately 430 metres north of the proposed extraction area red line boundary, to the north of the M50 Motorway. Far End lies approximately 115 metres to the south of the proposed site access (and approximately 775 metres from the proposed extraction area red line boundary). A cluster of residential properties are located to the east of the A38, approximately 240 metres broadly to the south of the proposed access. Twyning Farmhouse lies approximately 300 metres to the south-east of the application site (proposed processing plant site) and approximately 815 metres south-east of the proposed extraction area red line boundary. In addition, Church End Nursery lies approximately

55 metres to the south of the proposed site access (and approximately 785 from the proposed extraction area red line boundary).

70. Since the submission of the planning application, an application for proposed extraction of approximately 475,000 tonnes of sand and gravel with restoration to agriculture and nature conservation, including ponds, wetlands, hedgerows and lowland mixed deciduous woodland and meadows at Ripple East, Bow Lane, Ripple Worcestershire (known as Ripple East Quarry, MPA Ref: 22/000015/CM) has been submitted to the MPA by CEMEX and is pending consideration. Mineral is proposed to be transported by barge along the River Severn to Ryall House Farm (MPA Ref: 15/000012/CM, Minute No. 940 refers) for processing. The proposed Ripple East Quarry is located approximately 50 metres north of the Bow Farm Quarry proposal, on the northern side of the M50 Motorway.

Summary of Issues

71. The main issues in the determination of this application are:

- Worcestershire's landbank of sand and gravel reserves
- Location of the development
- Best and Most Versatile (BMV) agricultural land
- Alternatives
- Traffic, highway safety and impact upon public rights of way
- Residential amenity (including noise, dust, air quality, vibration, lighting and health impacts)
- Landscape character and appearance of the local area
- Historic environment
- Ecology, biodiversity and geodiversity
- Water environment and flood risk
- Restoration and aftercare of the site
- Economic impact
- Climate change
- Cumulative effects
- Prematurity

Planning Policy

National Planning Policy Framework (NPPF)

72. The revised National Planning Policy Framework (NPPF) was published on 20 July 2021 and replaces the previous NPPF published in March 2012 and July 2018 and February 2019. A National Model Design Code was also published on 20 July 2021. The government expect the National Model Design Code to be used to inform the production of local design guides, codes and policies.

73. The revised NPPF sets out the government's planning policies for England and how these are expected to be applied. The NPPF is a material consideration in planning decisions and should be read as a whole (including its footnotes and annexes).

74. The NPPF should be read in conjunction with the Government's planning policy for waste (National Planning Policy for Waste). Annex 1 of the NPPF states that *"The policies in this Framework are material considerations which should be taken into account in dealing with applications from the day of its publication"*.

75. The NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development. Achieving sustainable development means that the planning system has three overarching objectives (economic, social and environmental), which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives).

- **an economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
- **a social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
- **an environmental objective** – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

76. These objectives should be delivered through the preparation and implementation of plans and the application of the policies in the NPPF; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area.

77. So that sustainable development is pursued in a positive way, at the heart of the NPPF is a presumption in favour of sustainable development. For decision taking, this means:

- approving development proposals that accord with an up-to-date Development Plan without delay; or
- where there are no relevant Development Plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:

- the application of policies in the NPPF that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
- any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

78. The presumption in favour of sustainable development does not change the statutory status of the Development Plan as the starting point for decision-making. Where a planning application conflicts with an up-to-date Development Plan (including any neighbourhood plans that form part of the Development Plan), permission should not usually be granted. Local planning authorities may take decisions that depart from an up-to-date Development Plan, but only if material considerations in a particular case indicate that the plan should not be followed.

79. The following guidance contained in the NPPF is considered to be of specific relevance to the determination of this planning application:

- Section 2: Achieving sustainable development
- Section 4: Decision-making
- Section 6: Building a strong, competitive economy
- Section 8: Promoting healthy and safe communities
- Section 9: Promoting sustainable transport
- Section 11: Making effective use of land
- Section 12: Achieving well-designed places
- Section 14: Meeting the challenge of climate change, flooding and coastal change
- Section 15: Conserving and enhancing the natural environment
- Section 16: Conserving and enhancing the historic environment
- Section 17: Facilitating the sustainable use of minerals

National Planning Policy for Waste

80. The National Planning Policy for Waste was published on 16 October 2014 and replaces "Planning Policy Statement 10 (PPS 10): Planning for Sustainable Waste Management" as the national planning policy for waste in England. The document sets out detailed waste planning policies, and should be read in conjunction with the NPPF, the Waste Management Plan for England and National Policy Statements for Waste Water and Hazardous Waste, or any successor documents. All local planning authorities should have regard to its policies when discharging their responsibilities to the extent that they are appropriate to waste management.

The Development Plan

81. The Development Plan is the strategic framework that guides land use planning for the area. In this respect the current Development Plan that is relevant to this proposal consists of the adopted Worcestershire Minerals Local Plan, adopted Worcestershire Waste Core Strategy, and the adopted South Worcestershire Development Plan.

82. Planning applications should be determined in accordance with the provisions of the Development Plan unless material considerations indicate otherwise. The NPPF is a material consideration in planning decisions.

83. With regard to the weight to be given to existing policies adopted prior to the publication of the revised NPPF, Annex 1 states "*existing policies should not be considered out-of-date simply because they were adopted or made prior to the publication of this Framework. Due weight should be given to them, according to their degree of consistency with this Framework (the closer the policies in the plan to the policies in the Framework, the greater the weight that may be given)*".

Worcestershire Minerals Local Plan (Adopted July 2022)

84. The Worcestershire Minerals Local Plan was adopted by the County Council on 14 July 2022 and replaces the minerals policies in the County of Hereford and Worcester Minerals Local Plan. The policies that are of relevance to the proposal are set out below:

Policy MLP 1: Spatial Strategy
Policy MLP 3: Strategic Location of Development – Areas of Search and Windfall Sites Within the Strategic Corridors
Policy MLP 7: Green Infrastructure
Policy MLP 9: Lower Severn Strategic Corridor
Policy MLP 14: Scale of Sand and Gravel Provision
Policy MLP 15: Delivering Steady and Adequate Supply of Sand and Gravel
Policy MLP 26: Efficient Use of Resources
Policy MLP 28: Amenity
Policy MLP 29: Air Quality
Policy MLP 30: Access and Recreation
Policy MLP 31: Biodiversity
Policy MLP 32: Historic Environment
Policy MLP 33: Landscape
Policy MLP 34: Soils
Policy MLP 35: Best and Most Versatile Agricultural Land
Policy MLP 36: Geodiversity
Policy MLP 37: Water Quality and Quantity
Policy MLP 38: Flooding
Policy MLP 39: Transport
Policy MLP 40: Planning Obligations

Worcestershire Waste Core Strategy 2012 - 2027 (Adopted November 2012)

85. The Worcestershire Waste Core Strategy policies that are of relevance to the proposal are set out below:

Policy WCS 1: Presumption in favour of sustainable development
Policy WCS 2: Enabling Waste Management Capacity
Policy WCS 5: Landfill and disposal
Policy WCS 6: Compatible land uses
Policy WCS 8: Site infrastructure and access
Policy WCS 9: Environmental assets
Policy WCS 10: Flood risk and water resources
Policy WCS 11: Sustainable design and operation of facilities
Policy WCS 12: Local characteristics

Policy WCS 14: Amenity
Policy WCS 15: Social and economic benefits

South Worcestershire Development Plan (Adopted February 2016)

86. The South Worcestershire Development Plan covers the administrative areas of Worcester City Council, Wychavon District Council and Malvern Hills District Council. The South Worcestershire Development Plan policies that are of relevance to the proposal are set out below:

Policy SWDP 1: Overarching Sustainable Development Principles
Policy SWDP 2: Development Strategy and Settlement Hierarchy
Policy SWDP 4: Moving Around South Worcestershire
Policy SWDP 5: Green Infrastructure
Policy SWDP 6: Historic Environment
Policy SWDP 21: Design
Policy SWDP 22: Biodiversity and Geodiversity
Policy SWDP 23: The Cotswolds and Malvern Hills Areas of Outstanding Natural Beauty (AONB)
Policy SWDP 24: Management of the Historic Environment
Policy SWDP 25: Landscape Character
Policy SWDP 28: Management of Flood Risk
Policy SWDP 29: Sustainable Drainage Systems
Policy SWDP 30: Water Resources, Efficiency and Treatment
Policy SWDP 31: Pollution and Land Instability
Policy SWDP 32: Minerals
Policy SWDP 33: Waste

Draft Planning Policy

Emerging Worcestershire Mineral Site Allocations Development Plan Document (DPD)

87. A Mineral Site Allocations Development Plan Document (DPD) is being produced to support the Minerals Local Plan by allocating “specific sites” and “preferred areas” for mineral extraction (“Specific Sites” are where viable resources are known to exist, landowners are supportive of minerals development and proposals are likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction. “Preferred Areas” are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction).

88. Site options proposed by landowners and mineral operators were submitted in response to formal ‘calls for sites’ carried out between 2014 and 2018. A further ‘call for sites’ ran from 16 January 2020 until 13 March 2020. This call for sites was an opportunity to promote potential sites for mineral extraction, processing or supporting infrastructure for consideration in the preparation of the Minerals Site Allocations DPD.

89. Following consultation on a proposed methodology for site allocations in 2018/19, the site options are now being assessed by the MPA. The site, which is the subject of this report, has been promoted through the Local Plan process. A range of technical evidence is being gathered to inform a “Preferred Options” draft of the DPD. This draft

will show how each site performs against site selection criteria and will set out draft policy wording.

90. The “Preferred Options” draft will be accompanied by a Sustainability Appraisal that will consider the potential economic, social, and environmental effects of the DPD. It will inform the DPD by helping to maximise its benefits and avoid or minimise potential adverse effects. A Sustainability Appraisal Scoping Report, the first stage of the Sustainability Appraisal process, sets the framework against which the DPD will be appraised. Consultation on the Sustainability Appraisal Scoping Report took place from 28 June 2021 to 9 August 2021.

91. Consultation on the “Preferred Options” draft is scheduled to take place in Quarter 2 - Quarter 3 of 2023, with the Pre-Submission Publication consultation scheduled to take place in Quarter 3 - Quarter 4 of 2024. The emerging Mineral Site Allocations DPD is expected to be submitted to the Secretary of State for Levelling Up, Housing and Communities for independent examination in Quarter 1 of 2025.

92. The emerging Mineral Site Allocations DPD has not, therefore, been subject to consultation, tested at examination, or adopted by the County Council. Having regard to the advice in the NPPF, Section 4, it is the view of the Head of Planning and Transport Planning that the emerging Worcestershire Mineral Site Allocations DPD should be given very limited weight in development management terms in the determination of this application.

Emerging South Worcestershire Development Plan Review

93. Worcester City Council, Wychavon District Council and Malvern Hills District Council are reviewing the South Worcestershire Development Plan. The South Worcestershire Development Plan Review will cover the period to 2041. The ‘Preferred Options’ consultation version of the South Worcestershire Development Plan Review was consulted on from 4 November to 16 December 2019. An Additional Preferred Options (Focused on Sustainability Appraisal) Consultation (Regulation 18), was consulted upon from 1 March to 19 April 2021.

94. The next step is to a Publication Consultation (Regulation 19) following which the South Worcestershire Development Plan Review would be submitted to the Secretary of State for Levelling Up, Housing and Communities for independent examination. The Secretary of State would then appoint an independent Planning Inspector to assess the ‘soundness’ and legal compliance of the plan.

95. Councillors of Malvern Hills District Council, Worcester City Council, and Wychavon District Council will consider a draft version of the South Worcestershire Development Plan Review Publication Document at their meetings between 3 October and 19 October 2022. If approved the document will go out for public consultation from 1 November 2022 for 6 weeks. Following the consultation (if approved), a detailed timetable will then be drawn up to submit the plan for examination by an independent inspector.

96. Whilst the Publication Document of the South Worcestershire Development Plan Review has been made publicly available, the Councils have made clear this is only on the basis of being open and transparent with residents and other stakeholders, with the Publication Document being in draft form. A final version of the Publication

Document will be made available if approval is given by the three South Worcestershire Councils to put the document out to public consultation.

97. Having regard to the advice in the NPPF, Section 4, as the South Worcestershire Development Plan Review is still at an early stage of preparation, only limited weight should be applied to the policies.

98. The emerging South Worcestershire Development Plan Review policies (Preferred Options version) that, for the avoidance of doubt, are of relevance to the proposal are set out below:

Draft Policy SWDPR 1: Employment, Housing and Retail Requirements

Draft Policy SWDPR 2: The Spatial Development Strategy and Associated Settlement Hierarchy

Draft Policy SWDPR 3: Strategic Transport Links

Draft Policy SWDPR 4: Green Infrastructure

Draft Policy SWDPR 5: Historic Environment

Draft Policy SWDPR 7: Health and Wellbeing

Draft Policy SWDPR 11: Employment in Rural Areas

Draft Policy SWDPR 25: Design

Draft Policy SWDPR 26: Biodiversity and Geodiversity

Draft Policy SWDPR 27: The Cotswolds and Malvern Hills Areas of Outstanding Natural Beauty (AONB)

Draft Policy SWDPR 28: Management of the Historic Environment

Draft Policy SWDPR 29: Landscape Character

Draft Policy SWDPR 32: Management of Flood Risk

Draft Policy SWDPR 33: Sustainable Drainage Systems

Draft Policy SWDPR 34: Water Resources, Efficiency and Treatment

Draft Policy SWDPR 35: Amenity

Draft Policy SWDPR 36: Air Quality

Draft Policy SWDPR 37: Land Stability and Contaminated Land

Other Documents

Waste Management Plan for England (2021)

99. The Government, through Defra, published the latest Waste Management Plan for England in January 2021. The Waste Management Plan for England is required to fulfil the requirements of the Waste (England and Wales) Regulations 2011 and together with its associated documents, local authorities' waste local plans and, combined with the equivalent plans produced by the devolved administrations in Scotland, Wales and Northern Ireland, and Gibraltar, it ensures that waste management plans are in place for the whole of the UK and Gibraltar. It supersedes the previous Waste Management Plan for England (2013).

100. While the Our Waste, Our Resources: A Strategy for England (2018) sets out a vision and a number of policies to move to a more circular economy, such as waste prevention through policies to support reuse, repair and remanufacture activities, the Waste Management Plan for England focuses on waste arisings and their management. It is a high-level, non-site specific document. It provides an analysis of the current waste management situation in England and evaluates how the Plan will support implementation of the objectives and provisions of the Waste (England and

Wales) Regulations 2011. It will be supplemented by a Waste Prevention Programme for England, which will set out the Government's plans for preventing products and materials from becoming waste, including by greater reuse, repair and remanufacture supported by action to ensure better design to enable this to be done more easily.

Our Waste, Our Resources: A Strategy for England (2018)

101. This Strategy is the first significant government statement in relation to waste management since the 2011 Waste Review and the subsequent Waste Prevention Programme 2013 for England. It builds on this earlier work, but also sets out new approaches to long-standing issues like waste crime, and to challenging problems such as packaging waste and plastic pollution. The Strategy is guided by two overarching objectives:

- To maximise the value of resource use; and
- To minimise waste and its impact on the environment.

102. The Strategy sets five strategic ambitions:

- To work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025;
- To work towards eliminating food waste to landfill by 2030;
- To eliminate avoidable plastic waste over the lifetime of the 25 Year Environment Plan;
- To double resource productivity by 2050; and
- To eliminate avoidable waste of all kinds by 2050.

103. It contains 8 chapters which address: sustainable production; helping consumers take more considered action; recovering resources and managing waste; tackling waste crime; cutting down on food waste; global Britain: international leadership; research and innovation; and measuring progress: data, monitoring and evaluation. Chapter 3 – 'Resource Recovery and Waste Management' is the most relevant chapter to this proposal.

104. This states that whilst recycling rates in construction have improved since 2000, from 2013 onwards recycling rates have plateaued. The government wishes to drive better quantity and quality in recycling and more investment in domestic recycled materials markets. The government wants to promote UK-based recycling and export less waste to be processed abroad. The government wish to:

- Improve recycling rates by ensuring a consistent set of dry recyclable materials is collected from all households and businesses;
- Reduce greenhouse gas emissions from landfill by ensuring that every householder and appropriate businesses have a weekly separate food waste collection, subject to consultation;
- Improve urban recycling rates, working with business and local authorities;
- Improve working arrangements and performance between local authorities;
- Drive greater efficiency of Energy from Waste (EfW) plants;
- Address information barriers to the use of secondary materials; and
- Encourage waste producers and managers to implement the waste hierarchy in respect to hazardous waste.

The Government Review of Waste Policy England 2011

105. The Government Review of Waste Policy in England 2011 seeks to move towards a green, zero waste economy, where waste is driven up the waste hierarchy. The waste hierarchy gives top priority to waste prevention, followed by preparing for re-use, recycling, other types of recovery (including energy recovery) and last of all disposal.

106. In relation to infrastructure and planning paragraph 26 states that the Government continues to support local authorities in the provision of necessary waste infrastructure. Paragraph 256 identifies that the Government's ambitions for waste highlight the importance of putting in place the right waste management infrastructure at the right time and in the right location. The Government's ambition is to have appropriate waste reprocessing and treatment infrastructure constructed and operated effectively at all levels of the waste hierarchy to enable the most efficient treatment of our waste and resources.

Worcestershire Green Infrastructure (GI) Strategy (2013 – 2018)

107. The Worcestershire Green Infrastructure Strategy, produced by the Worcestershire Green Infrastructure Partnership, describes the need for Green Infrastructure in the county and sets a vision for the delivery of Green Infrastructure. It highlights how this can be delivered through housing, employment, infrastructure development and land management. The Strategy is a non-statutory county-wide guidance document which aims to direct and drive the delivery of Green Infrastructure in Worcestershire; and inform relevant strategies and plans of partner organisations.

108. The Strategy identifies mineral extraction and restoration as a main opportunity to deliver green infrastructure. The Strategy notes that Green Infrastructure closely reflects the principles of sustainable development identified in the NPPF. The delivery of Green Infrastructure is, therefore, likely to be an increasingly important consideration when assessing the extent to which proposals such as mineral workings constitute sustainable development.

109. The Strategy considers the key to planning and managing green infrastructure in minerals extraction and restoration is to consider the site in its context. This includes considering the features of the site and the networks of habitats, sustainable transport routes and water courses that surround it. It notes that the robust mechanism for delivering Green Infrastructure through mineral extraction and restoration is still to be established, but modern planning permissions for mineral workings require a restoration and aftercare scheme. The Strategy also notes that many operators are sympathetic to environmental enhancement, which is supported by the Minerals Products Association. It, therefore, considers that it is likely that there is significant potential to incorporate Green Infrastructure concepts within a wide range of restoration schemes.

Planning for Health in South Worcestershire Supplementary Planning Document (SPD)

110. The South Worcestershire Planning for Health SPD was adopted in September 2017, and primarily focuses on the principal links between planning and health. The SPD addresses nine health and wellbeing principles, one of which is 'air quality, noise, light and water management'. The SPD seeks to address issues relating to air quality, noise, light and water management, and sets out guidance on how these matters can be improved via the planning process. The SPD relates to a number of

policies in the adopted South Worcestershire Development Plan, including SWDP 1: 'Overarching Sustainable Development Principles', SWDP 4: 'Moving Around South Worcestershire', SWDP 5: 'Green Infrastructure', SWDP 21: 'Design', SWDP 28: 'Management of Flood Risk', SWDP 29: 'Sustainable Drainage Systems', SWDP 30: 'Water Resources, Efficiency and Treatment', SWDP 31: 'Pollution and Land Instability', and SWDP 39: 'Provision for Outdoor Community Uses in New Development'.

South Worcestershire Design Guide SPD

111. The South Worcestershire Design Guide SPD was adopted in March 2018 and provides additional guidance on how the adopted South Worcestershire Development Plan design related policies should be interpreted, for example through the design and layout of new development and public spaces across South Worcestershire and is consistent with planning policies in the adopted South Worcestershire Development Plan, in particular Policy SWDP 21: 'Design'.

South Worcestershire Water Management and Flooding SPD

112. The South Worcestershire Water Management and Flooding SPD was adopted in July 2018 and sets out in detail the South Worcestershire Councils' approach to minimising flood risk, managing surface water and achieving sustainable drainage systems. This applies to both new and existing development whilst ensuring that the reduction, re-use and recycling of water is given priority and water supply and quality is not compromised. It relates to policies SWDP 28: 'Management of Flood Risk', SWDP 29: 'Sustainable Drainage Systems', and SWDP 30: 'Water Resources, Efficiency and Treatment' of the adopted South Worcestershire Development Plan.

Consultations

113. Worcestershire County Council, as the MPA carried out public consultation on the planning application between 5 December 2019 to 17 January 2020. Following the consideration of the comments that were received on it, the MPA wrote to the applicant requesting additional information in respect of the ES, in relation to archaeology and cultural heritage, dust and air quality, noise and vibration, ecology, arboriculture, landscape and visual impact, soils, highways and public rights of way, water environment and health. Further public consultation, in accordance with Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended by The Town and Country Planning (Development Management Procedure, Listed Buildings and Environmental Impact Assessment) (England) (Coronavirus) (Amendment) Regulations 2020 was carried out between 27 August to 8 October 2020.

114. Following the consideration of the comments that were received on the further information, the MPA wrote to the applicant requesting further information in respect of the ES, in relation to ecology, landscape and visual impact, cultural heritage, noise, vibration and air quality, restoration materials, highways, geology, site security and public rights of way. Further public consultation, in accordance with Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended by The Town and Country Planning (Local Planning, Development Management Procedure, Listed Buildings etc.) (England) (Coronavirus) (Amendment) Regulations 2020 was carried out between 8 April to 14 May 2021.

115. Following the consideration of the comments that were received on the further information, the MPA wrote to the applicant requesting further information in respect of the ES, in relation to ecology (including derogation tests and deadwood hibernacula), landscape and visual impact, cultural heritage, BMV agricultural land and soils, transport and highways, public rights of way, noise, dust, arboriculture (veteran trees) and other matters (including matters relating to the proposed concrete batching plant). Further public consultation, in accordance with Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended by The Town and Country Planning (Local Planning, Development Management Procedure, Listed Buildings etc.) (England) (Coronavirus) (Amendment) Regulations 2020 was carried out between 23 September to 26 October 2021.

116. Following the consideration of the comments that were received on the further information, the MPA wrote to the applicant requesting further information in respect of the ES, in relation to arboriculture (veteran trees), aftercare, BMV agricultural land and soils, mineral yield, and other matters including dust, residual silt deposits and movement of inert restoration material within the site. Further public consultation, in accordance with Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 was carried out between 20 January to 24 February 2022.

117. Following the submission of a separate planning application to Worcestershire County Council by CEMEX for *“proposed extraction of sand and gravel with restoration to agriculture and nature conservation, including ponds, wetlands, hedgerows and lowland mixed deciduous woodland and meadows on land at Ripple East, Bow Lane, Ripple, Worcestershire”* (MPA Ref: 22/000015/CM), the applicant wrote to the MPA submitting additional information in the form of an addendum to the ES. The addendum provides an assessment of the potential for cumulative impacts resulting from the simultaneous operation of the proposed quarry at Bow Farm and the neighbouring quarry proposal by CEMEX on land at Ripple East. Further public consultation, in accordance with Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 was carried out between 9 June to 11 July 2022.

118. The comments below summarise the latest comments from consultees; and summarises all the letters of representations received on all the above consultations combined.

119. **County Councillor Martin Allen** notes the comments from the various Town and Parish Councils, including Ripple Parish Council, Bushley Parish Council and Longdon, Queenhill and Holdfast Parish Council, Malvern Hills District Council, and the local residents group Ripple Extraction Action Community Team (REACT). He requests that these comments are brought to the attention of Members of the Planning and Regulatory Committee when the application is considered.

120. He notes the access is proposed in the Parish of Twyning in Gloucestershire who have also commented on the application, and that this site is currently promoted in the emerging Worcestershire Minerals Site Allocations DPD, although this has not been adopted yet so this may be premature.

121. Councillor Allen does not wish to make any additional comments, as he is a Member of the Planning and Regulatory Committee and wishes to keep an open mind.

122. **Ripple Parish Council** objects to the proposal, stating that the mineral extraction and restoration needs to be achieved in a more environmentally way than what is being proposed. The Parish Council note that residents have major concerns and worries about the application and the Parish Council do not consider that the Regulation 25 Submissions (further information) are satisfactory.

123. The Parish Council state that whilst they recognise the importance of maintaining mineral supplies, they consider this should be from sites where proposals do so in the most environmentally and sympathetic manner and which mitigate and decrease the risk of flooding. Proposals should not adversely affect the health and welfare of local residents and businesses and recreational facilities and fully comply with planning statements. Ripple Parish Council cannot see how these criteria would be met and, therefore, recommend refusal of this application.

124. The Parish Council comment that for over a decade Ripple Parish has been host to a number of mineral workings, this includes Ripple Quarry, Ryall North Quarry and Ryall House Farm / Saxon's Lode Quarry. They consider that these proposals for a further 9 years of mineral extraction at Bow Farm would not comply with the NPPF, namely: *"to ensure that permitted and proposed operations do not have an adverse impact on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and / or a number of sites in the locality"* (paragraph 210 f) of the NPPF).

125. Ripple Parish Council also consider the proposal does not accord with the Minerals Local Plan for Gloucestershire, in particular Policy DM02: 'Cumulative impact'.

126. Ripple Parish Council request evidence that current mineral requirements cannot be met from extant or current sites in Worcestershire. The Parish Council also note that the application seeks to extract approximately 1.5 million tonnes of sand and gravel [now 1.44 million tonnes], however, the submission in response to Worcestershire County Council's 'Call for Sites' refers to 2 million tonnes on site. The Parish Council question how much mineral would be extracted from the site and how much inert waste material would be imported to the site.

127. The Parish Council comment that there are no prescriptive details provided about the aftercare and restoration schemes. There are also no details on whether inert landfill would be available to keep pace with extraction. In view of this, the Parish Council consider that a prescriptive scheme is required, and the MPA should impose a timed condition, which should include monitoring. This should include phasing of the extraction, and a condition restricting imported inert material to not be stockpiled.

128. In times of extreme flooding the whole site may be flooded, therefore, this may lead to commination issues due to the inert landfill.

129. The Parish Council notes that clay is proposed to be used to line the voids, however, if there is a shortfall, they question if clay would have to be imported to the site.

130. The role of Ripple Brook which feeds into Mythe Brook is significant in Ripple Parish and does not appear to have been considered in depth by the applicant. Any rebalancing of the aquifer has the potential to increase flooding. This is particularly significant as the land is to be infilled leaving it less permeable to water within Ripple Brook to the east, which is seeking to permeate to the River Severn in the west. Disruption of the surrounding aquifer by sealing off extraction areas, formerly part of the aquifer, may potentially have adverse effects on the Uckinghall flood relief scheme and implications for land drained by Ripple Brook. In view of this, the Parish Council consider that the Environment Agency should fully consider the application and its potential implications. In addition, the Parish Council consider that the drainage mitigation measures are inadequate, and little attention has been given to the effects of climate change. Calculations relating to rainfall and groundwater recharge appear to be based on average figures.

131. The Parish Council consider that the proposal would not accord with Policy WCS 10: 'Flood risk and water resources' of the adopted Worcestershire Waste Core Strategy, Policies MLP 7: 'Green Infrastructure' and MLP 38: 'Flooding' of the adopted Worcestershire Minerals Local Plan or Policy INF2: 'Flood Risk Management' of the adopted Cheltenham, Gloucester and Tewkesbury Joint Core Strategy.

132. The Parish Council consider that part of the haul route would pass over Common Land. This needs clarification and delineation on a map to accompany this application. Gloucestershire County Council have a duty to protect Common Land and ensure that residents commons rights are maintained.

133. The Parish Council are concerned that the application has progressed to this stage with so much detailed information missing, questioning what is the chronological sequence of supporting infrastructure construction and what materials would ancillary buildings be constructed from? Would bunds be constructed progressively or at the commencement of the works and would this require the importation of material? What materials would the haul road be constructed from? No details are given about the portacabins proposed. No details on the plans in respect of site offices, weighbridge, screening and vehicle wash plant, cement processing plant, conveyor belt, external lighting, car parking and toilet facilities, foul drainage and availability of fresh water and electricity services.

134. With regard to restoring the site with inert materials, the Parish Council question if the benefits of restoring the site back to agricultural land outweigh improving drainage around Bow Lane area, which is known to flood. The Parish Council state that inert landfill is more commercially viable for the applicant, particularly as they own a fleet of haulage vehicles, but this factor should not outweigh the environmental harm that landfill import by road would create. In view of this, the Parish Council consider the proposal would be contrary to the adopted Worcestershire Waste Core Strategy Policies WCS 4, WCS 8 and WCS 12.

135. The Parish Council state there are no proposals on how the site would be protected and secured against indiscriminate dumping of waste by third parties and how this would be monitored.

136. The Parish Council state that the submission does not include an aftercare plan, to demonstrate how the site would be returned to BMV agricultural land.

137. With regard to traffic and highway safety the Parish Council state the sheer volume of lorries entering and leaving the site entrance (6-8 per hour) would cause major congestion and pose potential health and safety issues to drivers.

138. A mineral processing plant is located at Ryall (known as Ryall House Farm), and in the past it served Ripple Quarry, which is located adjacent to this application site. Ryall House Farm mineral processing plant currently processes minerals from the operational Ryall North Quarry site, near Upton-upon-Severn. Essentially while all processed minerals leave the site by road haulage, all incoming raw minerals are delivered to the site via the River Severn by barge. A wharf exists on third party land adjacent to the proposed Bow Farm Quarry site. Whilst the Parish Council appreciate that the Ryall House Farm mineral processing plant is in the ownership of a third party, the submitted Transport Appraisal dismisses utilisation of river transport on the basis that they have no riverside land even if they were to construct their own wharf. The Parish Council are at a loss to understand this statement as land ownership along the River Severn exists within the area of proposed Flexible Working Area B. The Parish Council appreciate that there would be no overall net gain in reducing the number of eventual road trips if river transport was used, as haulage of all processed aggregate and landfill material would ultimately be by A38 road haulage. There could, however, be a net gain in processing the aggregate only at Ryall as this would negate the need for an additional processing plant at the proposed Bow Farm Quarry site.

139. The Parish Council consider that the proposal would be contrary to the Gloucestershire Local Transport Plan, in particular Policy PD 4:5 'Enabling Development', which states that "*development should be resisted where a severe impact on the transport network cannot be mitigated*".

140. The proposal would result in an increase of traffic on the A38 by approximately 3.4% which is already a busy road, and this increase would be channelled into a single road access entrance / exit, which the Parish Council consider is highly significant. The application submission fails to consider vehicle movements emerging / entering Page's Lane or its closeness to the entrance.

141. Data relating to traffic volumes and speed on the A38 have been collected over one week in late March 2018. The Parish Council would expect data to be collected during both summer and winter periods. South Worcestershire / North Gloucestershire Councils all have plans to increase housing within their districts over the next ten years which would invariably lead to increased traffic flow along the A38. No consideration has been given to this projected traffic flow over the life of the quarry. General assumptions have been made in the application submission on which routes lorries would take. The Parish Council question on what basis these assumptions have been made.

142. The Parish Council notes that the primary destination of sand and gravel would be to the Cullimore Mix Ltd at Frampton on Severn in order to build 33,500 proposed homes outlined in the Joint Core Strategy for Cheltenham, Gloucester and Tewkesbury. The Parish Council states that whilst Worcestershire aggregates and village communities would be exploited, very little aggregate is going towards

Worcestershire's needs as outlined and required in the Worcestershire Minerals Local Plan.

143. The Parish Council consider that bus services are totally lacking in terms of frequency and timing for employees, cycle access is only achievable via the A38 unless staff work in Twyning or Ripple, and there are no nearby rail links. In terms of sustainability the workforce would invariably be vehicle reliant, adding to traffic flow and pollution.

144. The Parish Council welcomes the amended proposed A38 access design but consider that the volume of heavy commercial vehicles utilising the A38 along a single stretch of road would be significant. Whilst the access is outside the area covered by Ripple Parish Council, a great many of their residents use this road on a daily basis for work, school and shopping trips and their safety is important. The applicant has stated that there are likely to be 144 two-way HGV movements per day, which is 13 per hour or 1 HGV movement in either direction every 5 minutes. The Parish Council assume this also includes Saturday mornings, not just Monday to Friday. The applicant estimates that 90% of the traffic would use the Motorway network and, therefore, travel north to the M50 / M5 Motorway junction. 5% would go west using A438, presumably over Mythe Bridge which has a weight limit which would be exceeded by his vehicles, or through Tewkesbury Town. The applicant also states that traffic would increase northwards by 3%, but this relates to all types of traffic. In 2019 the Transport Assessment showed there were an average of 156 HGV movements going north, if the estimate of a further 72 movements by the applicant's vehicles is added to this the increase is more like 46% of HGV movements. The increase in the volume of HGVs using the A38 would be significant. At the CEMEX (Ryall House Farm) exit further up the A38, stones (and mud) are frequently scattered on to the road as the HGV turns out. Some cars have had their windscreens damaged. The Parish Council consider that further analysis of the traffic movements should be undertaken, as this increase would have a cumulative effect on the local road network.

145. The trip distribution figures remain only an estimate, as invariably drivers may seek to take the shortest routes. No analysis has been carried out on the number of heavy haulage aggregate vehicles currently using the A38 / M50 Motorway junction to access the CEMEX aggregate distribution site. The Parish Council consider that there would be a cumulative effect on the local road network.

146. With regard to noise impacts, the Parish Council consider that a single day monitoring is wholly insufficient for an operation of this nature when the welfare, health and safety implications for residents could be adversely affected over a period of up to 9 years. Measurements should be taken from fixed monitoring positions close to the critical receptors for short periods over seasonal changes. The Parish Council requests that Worcestershire County Council and / or Gloucestershire County Council carry out their own independent analysis of the applicant's noise reports and publish their findings as part of the ongoing consultation and planning determination process.

147. The Parish council also consider that the vibration assessments is completely lacking, whilst figures are provided on vibration levels emitted from plant, none of these correlates to the potential effects on critical receptors. The Parish Council are concerned about the vibration effects on all critical receptors along Bow Lane, particularly the Grade II Listed Buildings.

148. With regard to dust impacts, the Parish Council states dust emissions may reach the critical receptors along Bow Lane, the commercial Church End Nurseries and Puckrup Hall Hotel and potentially the village of Ripple and, therefore, consider that conditions should be imposed should planning permission be approved to ensure monitoring takes place on a regular basis. The Parish Council are also concerned that in the dust assessment, the calculations are based on the wind direction data provided by Pershore monitoring station. The Parish Council question why a temporary wind monitoring station was not placed at the site.

149. The Parish Council comment that the CEMEX site on the A38 (Ryall House Farm), generates dust daily and at time generates a great deal of dust which spreads a considerable distance, even as far as Naunton. It is not correct to compare potential dust emissions with those generated by agricultural working, which are usually very brief and transient in nature. The Parish Council fail to see how the workings would not cause significantly adverse air quality or dust impact within the vicinity.

150. With regard to the historic environment, the Parish Council state that without a full Archaeological Field Evaluation Report based on trial digs, the Parish Council considers that the application is contrary to Policy SWDP 24: 'Management of the Historic Environment' of the adopted South Worcestershire Development Plan and paragraph 194 of the NPPF.

151. The Parish Council are concerned about the loss of recreational amenity in relation to the public rights of way in the vicinity of the site, particularly views from the Severn Way and views from the east, as walkers would experience substantial adverse effects. There does not appear to be a Recreational User Assessment other than identifying footpaths. There is also a danger that in upsetting the balance of the aquifer and the subsoils abilities to retain water across the site, surrounding trees may suffer. The Parish Council request conditions are imposed to ensure access to public rights of way are maintained at all times during the development and the field and hedge structures restored to the pre-existing works landscape.

152. Should planning permission be granted the Parish Council would have major concerns about the ongoing sustainability of significant businesses on the border of the proposal, namely Church End Nurseries and the Puckrup Hall Hotel and Golf Course. The Parish Council understand that the Puckrup Hall Hotel employs in excess of 100 staff and receives over 40,000 sleeper bookings per year, plus around 850 Leisure Club members. The Golf Club has over 450 members and is used widely by locals as well as guests. Slightly further to the east, Hillview Lakes offers visitors fishing facilities. Horse riding stables are situated in Bow Lane immediately opposite the extraction site.

153. If planning permission is granted the Parish Council recommend the imposition of conditions limiting working hours between 07:00 to 18:00 hours Mondays to Fridays, with no working on weekends, or Bank Holidays. No quarry related traffic should use Puckrup Lane and Bow Lane. The existing agricultural access along Bow Lane should be sealed to prevent fly tipping. The site perimeter should be fenced to deter rural crime. A formal Community Liaison Group should be established. The permission should be time limited. The Parish Council also request the applicant contributes funding for improvements to Ryall Recreation Ground and a recreation area for the community.

154. In response to the applicant's response to the Regulation 25 Request (further information), the Parish Council states that the applicant has not provided assurances that third party inert material is available for infilling of the proposed quarry void, to keep pace with the restoration of the site. The Parish Council are concerned that due to the proximity of the River Severn and Severn Trent Water Limited's Water Treatment Works for North Gloucestershire that it is imperative that there is no leeching of landfill pollutants to the river. In view of this, the Parish Council are opposed to landfill as a means of restoring the site.

155. With regard to the proposed interceptor ditch, the Parish Council request clarification and assurances that the calculations included in the application are based on the final restoration, as Bow Lane currently floods. If the aquifer is replaced with significantly less permeable landfill, flood waters would be displaced to the western infiltration basin. As a result, the Parish Council query whether the proposed interceptor ditch would be draining to what would already be a flooded infiltration basin. In addition, the Parish Council consider that little regard has been given to Ripple Brook and the effects of this proposal impacting the brook and flooding. The Parish Council acknowledge that Flexible Working Areas A and B would be restored to lower levels, but the main Phases 1 to 9 would be restored to existing levels. Therefore, the chance to improve any post restoration flooding in Bow Lane would not be made and could be made worse due to infill by inert material.

156. Phases 1 to 9 are proposed to be worked dry and that water from the excavated voids which would be clay lined, would consist of only rainwater which would be pumped to the interceptor ditches. The Parish Council question how this would function at times of flood.

157. In respect to site security the Parish Council request that the Bow Lane perimeter is fully fenced to industrial standards and that this requirement should be secured by condition.

158. With regard to agricultural land the Parish Council states that there does not appear to be any independent confirmation that the current high grade agricultural land would be available after restoration if the topsoil is merely placed over poor quality impervious inert infill, typically construction and demolition waste, which is what is being proposed. In addition, there is only limited information regarding quality, quantity and timescales of delivery of the infill and it suggests therefore, that, at times, storage of these inert materials would be required. There is nothing to say how or where this would be stored and therefore could be both unsightly and possibly have pollution implications. The Parish Council remain opposed to landfill as a means of restoration of the site.

159. In response to the Regulation 25 Submission (further information) in relation to cumulative effects, the Parish Council states that they acknowledge there is a pressing need for sand and gravel and that each application has to be considered individually, however, it seems totally unfair on the residents of both Ripple and Uckinghall that they should be subjected to two possible mineral extraction sites at the same time. The fact that the applicant has been asked for a response about cumulative effects must surely illustrate that there is some concern about the proximity of the sites to each other and the impact upon residents. For more than a decade mineral extraction has been ongoing in Ripple Parish, and it is envisaged that

this application is likely to last approximately 9 years. It is devastating for the residents that their lives and wellbeing are going to be blighted for all this time, possibly by two simultaneous quarry workings.

160. The two proposed sites (Bow Farm Quarry and Ripple East Quarry) are very close to each other, and the Parish Council is surprised that the ES addendum considers that there are no significant adverse effects from the simultaneous working of Bow Farm Quarry and Ripple East Quarry, as the M50 Motorway acts as an attenuation buffer between the two sites. The Parish Council feel this is of little comfort to the residents and cannot see how there would not be some detrimental effects.

161. Both sites are accessed down narrow lanes, and vehicles accessing both sites would either access through Bow Lane from Pickup, or via Ripple Village itself, which leads to safety concerns for residents.

162. Ripple Parish Council state that whilst the individual levels of noise emanating for each site, may not be considered excessive, they have concerns that the cumulative effects of noise would be damaging to the peaceful rural ambiance of the area and have harmful effects on the health and wellbeing of local residents. It must also be noted that in Ripple village there are many properties that are very close to both sites and would suffer the full effect, with little respite.

163. The Parish Council are concerned about the proximity of the sites (Ripple East Quarry and Bow Farm Quarry) to one another in terms of dust impacts. There has been recent research that suggests that silica dust can cause silicosis and lung cancer, as well as other lung problems. The Parish Council hope that when considering the application both Worcestershire County Council and Gloucestershire County Council will look at this in depth and not rely on information submitted by the applicant.

164. **Twynning Parish Council** objects to the proposed development, stating that the application is being taken out of context with either County Minerals Local Plan and is developer led without any strategic reasoning. The applicant has tweaked reports referenced in the Regulation 25 Submission Addendum, but the fact still remains that the River Severn is already a highly polluted river and current habitats should be preserved rather than disturbed. Dust and surface water run-off would adversely affect the watercourse, surrounding environment and residents. There are less harmful sites available in Worcestershire than the proposed site and the Parish Council agree with residents' comments as follows:

- The submitted Dust Management Plan does not include any size distribution for the sand to be quarried and portrays the dust issue as trivial as it deliberately scopes out any analysis of the fine dust pollution risk. There are health implications here to local residents as well as damage to a Grade II Listed Building's thatched roof and also potentially devastating effects on local businesses such as Church End Nurseries and Puckrup Hall Hotel. The Parish Council have observed other operated sites where a thick film of dust covers nearby vegetation until it dies.
- There is still a very high risk of the site workings being inundated by river flood events which in terms of the flexible working areas are also at risk

during minor flooding even in the summer. Areas of the site workings are up to 6 metres deep close to the river and 8 metres deep in the main phases. The only way these voids could be pumped out is directly into the river with the attendant silt damage to the river ecosystem.

- The traffic plan still includes 32 tonne loaded HGVs using the 17 tonnes weight limit Mythe Bridge and shows not only a huge - over 40% - increase in HGV traffic on the A38 but also introduces a whole new class of vehicles to this stretch of road.
- There is no storage shown for the imported infill material for the site and no confirmed internal site routes for its use. The Parish Council consider that due to the applicant's stated delivery schedule for the material and the propensity for the site to be unworkable due to flooding events, an appropriate storage mass would be at least 30,000 tonnes.
- Key other potentially hazardous storage items are not shown on any of the plans.
- The Parish Council consider that the applicant should investigate the use of offsite remote processing upriver from the workings.
- The applicant shows sand and gravel being quarried from under the bunds without any noise attenuation means whatsoever. This should be prevented by a planning condition should the application be approved.
- Questions if there has now been approval for the commercial exploitation of the Common Land to be used by the applicant between the site workings and the process plant?
- The main aftercare documentation still states a 5-year period, however, the Parish Council understood this would be extended to 10 years. Question which timescale is correct?
- Because of the huge carbon footprint generated by the site and especially with the production of concrete the Parish Council consider the applicant should be subject to a carbon offset requirement.

165. The Parish Council also consider that the Regulation 25 Submissions (further information) does not satisfy the requirements of the following Policies:

- The accumulative effect on nearby businesses and the damaging impact on the environment cannot in any regard meet the exacting standards on sustainability found in NPPF paragraph 8.
- The exclusion zone round the Grade II Listed Building (Puck Cottage) is nowhere near enough to prevent serious damage being done to this valuable building by vibration. This is contrary to the Listed Buildings and Conservation Act 1990 (as amended).

- The Parish Council have no confidence that the many health issues have been adequately addressed and as such the application is contrary to paragraph 210(f) and 211 (b) and (c) of the NPPF.
- There is no satisfactory solution to resolve the undoubted flood risk the application raises, particularly in regard to moving flood waters elsewhere contrary to paragraph 167 of the NPPF.
- The Parish Council consider that there are no satisfactory solutions to counter the effects of noise, dust, vibration, air pollution and the intrusion into the landscape contrary to the NPPF.
- The emerging Minerals Site Allocations DPD is the critical supporting document to the Worcestershire Minerals Local Plan and does not exist and, therefore, no decision can be made on this application and it should be dismissed on the grounds of prematurity.

166. The Parish Council state that they consider that the unacceptable disruption to local businesses, the environment and the local community considerably outweighs the commercial necessity for such industrial activity.

167. The Parish Council state that their objection is primarily based on the adverse environmental impact in that the business operation is contrary to Policy DM01: 'Amenity' of the Minerals Local Plan for Gloucestershire and paragraph 174 (a, b & e) of the NPPF, in that it is not adequately demonstrated that the adverse impacts can be avoided. This policy applies equally to the subjects of noise, vibration, air pollution, including significant dust impact, light pollution and the visual intrusion into the open landscape. The Parish Council consider that the application would change environmental conditions to the extent that there would be an impact on human health or cause health inequality through the density of dust pollution which would affect agricultural, horticultural and fisheries businesses. This is contrary to Policy SD14: 'Health and Environmental Quality' of the Gloucester, Cheltenham and Tewkesbury Joint Core Strategy (JCS). The processing and concrete batching operation when added to the volume of expected HGV journeys to and from the site would threaten compliance with Policy DM02: 'Cumulative impact' of the Minerals Local Plan for Gloucestershire.

168. The Parish Council consider that there is an opportunity to use the existing processing plant at Ryall House Farm with excavated mineral transported by barge, thus eliminating the construction of a new plant on BMV agricultural land. Whilst there may be cost implications, the Parish Council consider that the environment should be valued more highly. There is no doubt that the quarry would destroy the local area stripping away the natural habitat for burrowing animals and threatened bird species and removing ancient trees and hedgerow.

169. Due to this being a cross-boundary application, the restoration of this site may be of little importance and, therefore, the use of unsuitable infill materials may result. The site may be on the edge of each County but is important to the floodplain and continued biodiversity of the flood margin. The Parish Council consider it is not clear how flooding would be avoided onsite during use of the site or how the site would be managed to avoid polluting the river when flood waters recede. The Parish Council consider that the River Severn is already heavily silted with diminishing fish stock and

would, therefore, suffer as a result of permitting this proposal. This application does not eliminate the flood risk being increased elsewhere and is contrary to paragraph 167 of the NPPF and Policy INF2: 'Flood Risk Management' of the JCS.

170. The Parish Council also make the following detailed comments:

Common Land

171. The Parish Council considers that use of Common Land for a road access is not acceptable as in their view Common Land should be kept open and accessible to the public for walking, horse riding and grazing and is an important green landscape which should be protected. Access by HGVs is against all objectives of preserving this important green space.

Prematurity

172. The fundamental objection to this application is that Worcestershire's emerging Minerals Local Plan [now adopted by the County Council and forms part of the Development Plan] and emerging Minerals Site Allocation DPD have not yet been adopted by the Council. Until such a time that both documents are adopted, this application cannot be considered as its submission is premature. In addition, Twyning Parish Council consider that it is highly questionable that Worcestershire County Council would nominate this site as a preferred site under the guidance in the NPPF.

Omissions and anomalies

173. The Parish Council consider that there are numerous omissions, inconsistencies and inaccuracies in the application, which reinforces the prematurity of the submission as well as its status in the planning process. For example, whether the site would be worked dry or wet; confusing timeline; no explanation as to the likely long-term effects of de-watering on licenced extractions; the area impact upon the aquifer; and Puckrup Hall Hotel and its Golf Course are not identified as a sensitive receptor.

Extent of the development

174. Although the mineral extraction would take place in Worcestershire, the biggest impact would be upon Gloucestershire, as the applicant proposes a processing plant site in Gloucestershire. This would create traffic turmoil, destroy the rural setting and damage local businesses whilst delivering nothing to Gloucestershire's mineral obligations.

175. Amenity would be lost with several public rights of way crossing and adjoining the site, which are used by walkers and visitors to Puckrup Hall Hotel. The proposed industrial processing plant would be unsightly, noisy and dusty facility spanning at least 500 metres by 200 metres. Concrete batching plant structures can be up to 30 metres tall.

176. The applicant has submitted limited information about the equipment and production processes (sorting, washing, storing and conveying) proposed in the processing plant site area, which would be the source of the noise, dust and contaminant (powdered concrete) associated with the concrete batching plant. There is also no reference to storage facilities for fuel, hazardous material, machinery and septic tanks.

Noise and vibration

177. Consider that the noise values submitted as part of the application are highly questionable, and at best are an underestimate. The level of noise would be highly damaging to Puckrup Hall Hotel, as customers would not want to have a luxury break, play golf or have their wedding celebrations competing with noise from an adjacent industrial process. The proposed concrete batching plant, spoil heaps and washing plant would be in full view from the golf course.

178. The Parish Council consider that the proposal would be damaging to health and the quality of life and would fail to protect the tranquil area of the open countryside. The applicant has also not demonstrated the proposal would not have an adverse vibration impact upon Puck Cottage.

Traffic generation

179. Considers that the proposed level of traffic the proposed development would generate is totally unacceptable and is contrary to paragraphs 110 and 111 of the NPPF, Policy DM03: 'Transport' and paragraphs 297, 298 and 299 of the Minerals Local Plan for Gloucestershire. The fact that major alterations are required to the local rural lanes to accommodate the turning circles of these HGVs demonstrates how incongruous this development is with the local surroundings.

180. The Parish Council consider that the level of Carbon Dioxide emissions created by HGV movements, associated noise levels and wear and tear on local roads have not been addressed by the applicant.

181. The Parish Council consider that the proposed access onto the A38 is extremely dangerous. The A38 is easily gridlocked when the M50 and M5 Motorways are closed. The Parish Council consider that it appears unusual that Gloucestershire should have to accept the proposed altered layout on the A38 to provide access for HGVs to a site which has no benefits to the County of Gloucestershire or the local economy.

182. The Parish Council do not accept that the traffic flow figures quoted are correct and that they do not relate to a normal time and conditions (i.e., no COVID-19 pandemic). Even assuming the applicant controls the traffic, which the Parish Council do not think in practice is likely, the additional heavy traffic which cause major and extremely dangerous risk of long delays and possible serious injuries at the A38 junction.

183. The applicant is currently refusing to entertain taking the minerals out by the river on the basis that the land on the river frontage is out of their landownership. The applicant should investigate this option further.

Dust

184. No accurate data is provided on dust particle size, assessment of air quality, health hazards and nuisance. The Parish Council consider that there has not been a proper assessment of the impact on the most sensitive receptors close to the site e.g., private residences, Church End Nurseries and Puckrup Hall Hotel and Golf Course. This pollutant poses a huge risk to health, wildlife and vegetation and beauty of the countryside with the processing operations proposed for up to 10 years. The Parish Council also states that dust emissions have been significantly underplayed and the construction of 3-metre-high bunds would have the effect of ramping

particulate distribution. The application, therefore, fails to accord with paragraph 211 c) of the NPPF, and the dust emissions would not be effectively removed at source.

185. The Parish Council comment that they are seriously concerned that the proposed bunds would not give sufficient protection to the existing adjacent greenhouse business (Church End Nursery) or to Puckrup Hall Hotel, which could well cause serious loss of business and probable closures with loss of employment.

186. The cumulative effect of pollutants would have a devastating impact on the businesses at Church End Nursery, Puckrup Hall Hotel, Hillview Lakes fishing complex, Tewkesbury Riding School and other sensitive sites along Page's Lane.

Health risk

187. Adverse impacts upon the health of local residents. Insufficient data provided by the applicant on the type and quantity of dust that would be generated and wind direction.

River pollution and flooding

188. Risks of pollution of the River Severn, damage to wildlife and high risk of flooding to the whole site during rainy months would be inevitable. Certain parts of the site flood and the proposals would increase flood risk and the contamination of the land and run off into the river.

189. The applicant's expectation that bunds would be used to minimise dust and noise would have the opposite effect as regards flooding. The lower end of Bow Lane already floods every time the River Severn rises, and the bunds would create a damaging effect which would prevent the water from draining away. Impermeable backfill would change the underlying aquifer structure with the effect that water would not drain and properties in the east may well flood.

Historic environment

190. Great weight should be given to the prevention and conservation of the archaeological heritage assets and not deliberately destroyed. The Parish Council consider that the proposal is contrary to paragraphs 200 and 210 of the NPPF.

Local employment

191. The need for local jobs is not in question, however, the number of people to be employed in this proposed enterprise (up to 20 people) may be existing employees of the applicant's company and would be negligible compared with those employed by some of the sensitive receptors in the area. Puckrup Hall Hotel and Golf Course employs approximately 110 people and has a total of approximately 1,250 members of the Golf Club and Leisure Club. Church End Nurseries consists of glasshouses growing soft fruit. The glasshouses would be covered in dust which reduces light available to growing plants and the dust would also contaminate the crop rendering it unsaleable, as it cannot be washed prior to sale. Hillview Lakes fishing complex would suffer as a result of damage to the aquifer and may drain or de-oxygenate the dishing ponds.

Restoration

192. The restored lake may look acceptable, but there would be no public access. Biodiversity is irreparably damaged and potential land use severely impaired. In addition, it seems unlikely that the applicant would be able to source sufficient

acceptable replacement material leading to probable flooding and use of potentially hazardous waste for infilling.

193. **Neighbouring Town Council – Tewkesbury Town Council** comment that they note the considerable concern expressed by local residents, with respect to fine dust particles and their potential impact on public health. The site is traversed by footpaths that are used by residents from their parish, and the Town Council are concerned at the potential loss of amenity for those residents and also those in adjoining parishes. The Town Council seeks further detail regarding the assessments of the impact of fine dust in the area and the strategies to be employed in mitigation.

194. Due to concerns about the potential adverse impact of HGVs from the site on Tewkesbury's road infrastructure and also on air quality in the vicinity of the Black Bear roundabout, the Town Council requests that, in the event of the proposal being permitted, it should be on the condition that HGVs from the site do not cross the Mythe Bridge or pass through Tewkesbury Town Centre, and also HGVs do not attempt to use the Black Bear roundabout and Bredon Road.

195. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, the Town Council comment that the additional impact caused by the proposed Ripple East Quarry would be of little significance within its own parish, but there may well be additional noise and dust impacts on the parishes of Twyning and Ripple.

196. **Neighbouring Parish Council – Bushley Parish Council** objects to the proposal and make the following observations:

- There is a very large amount of sand and gravel to be extracted which would cause damage to the environment
- They note the heavy traffic required to complete the extraction
- The origins of the inert restoration materials do not appear to have been specified in the application
- They note the very lengthy period of extraction and restoration
- The Parish Council consider that the proposed wetland environment requires mineral extraction on such a largescale and over such a prolonged period it would cause irreparable damage

197. **Neighbouring Parish Council – Longdon, Queenhill and Holdfast Parish Council** objects to the proposal, stating that the A38 is a busy main road and becomes very quickly congested when there are problems on the M5 and M50 Motorways. The application does not take into account the additional traffic likely to arise on the A38 from new housing developments planned over the next 10 years. The alternative option of using the River Severn for transport has not been thoroughly explored before being ruled out.

198. The future risk of air pollution from quarry dust has not been robustly researched in the application. Although the submission refers to a negligible impact based on past data, the applicant has not taken into account the future mineral extraction workings in the area.

199. Furthermore, the Parish Council consider that until the Worcestershire Minerals Local Plan has been adopted [now adopted by the County Council and forms part of

the Development Plan] it is impossible to determine the real impact both of air pollution and road congestion.

200. **Malvern Hills District Council** comments that it would appear that only a small part of the proposed workings would be located within a preferred area for sand and gravel extraction (Policy 1: 'Preferred Areas') of the County of Hereford and Worcester Minerals Local Plan (1997) [now replaced by the Worcestershire Minerals Local Plan]. The District Council note that the remainder of the site falls within the Lower Severn Corridor as defined in the emerging Minerals Local Plan [now adopted by the County Council and forms part of the Development Plan]. It is clearly for the decision-maker to determine the weight attached to adopted and emerging minerals policy balanced against the tests set out at paragraphs 5.3 and 5.4 (Sieve Test) of the County of Hereford and Worcester Minerals Local Plan [now replaced by the adopted Worcestershire Minerals Local Plan]. With regards to the elements of the scheme located in Gloucestershire, it is recommended that further advice in respect of these specific aspects of the scheme is sought from Tewkesbury Borough Council whose administrative area they fall within.

201. In relation to archaeology, the District Council comment that the submission has been assessed by the District Archaeologist who advises that the submitted desk-based assessment, geophysical survey, geoarchaeological investigation and trench evaluation have adequately assessed the archaeological potential of the proposed development area. The application is now considered to be in accordance with the NPPF, subject to the imposition of a condition requiring a programme of archaeological work, including a written scheme of investigation. The District Archaeologist wishes to defer to the County Archaeologist on the scope of works.

202. In respect of the impacts upon built heritage, Malvern Hills District Council's Conservation Officer supports the proposal stating that further information has been submitted that provides a statement of significance for Puck Cottage and an assessment of impact of the development. The findings of the Statement are agreed and the previous and revisited conclusions about the impact of the development upon the heritage asset are also considered accurate. The submitted Dust Management Plan is also considered to set out an appropriate scheme for the control of dust in relation to the heritage asset, Puck Cottage.

203. The Conservation Officer considers that there would be a less than substantial harm on the Listed Building of Puck Cottage and Conservation Areas of Ripple and Uckinghall. With Puck Cottage the adverse impacts would be mitigated by the methods described so that the less than substantial harm would low during the extraction period for the quarry. The less than substantial harm to the Conservation Areas is considered to be negligible due to distance, topography and intervening M50 Motorway.

204. In response to the Regulation 25 Submission (further information) in relation to cumulative impacts, the Conservation Officer states that their above comments remain unchanged.

205. In terms of landscape impacts, the District Council notes that a LVIA has been submitted in support of this planning application. It is understood that the proposed development would take place over a period of approximately 9 years and incorporates embedded mitigation measures designed during the iterative design

process. Included amongst these is the retention of peripheral hedgerows, the formation of grassed bunds, the sequential extraction of the mineral followed by the immediate restoration of the worked areas and considering the appropriate siting of static plant at the lowest point of the site. The restoration phase would return the land to its baseline, agricultural condition whilst providing a net benefit in biodiversity through the creation of woodland, wetland and the hedgerows. Should planning permission be granted for this development, planning conditions should be imposed to control the phasing of both the extraction and restoration of the site. However, the District Council are not clear how Flexible Areas A and B fit into this programme.

206. The District Council notes that Worcestershire Regulatory Services have been consulted on this application and urge the MPA to have regard to their comments in respect of noise, dust, air quality and the health impacts of the development.

207. With respect to ecology, the District Council comment that as the MPA will be aware, the application site is located in relatively close proximity to the Severn Estuary SPA and SAC which are European sites. This site is also notified at international level as the Severn Estuary Ramsar site and at a national level as the Severn Estuary SSSI. The application site also falls immediately adjacent to Ripple Lake and the Napps LWS and Ripple Brook LWS and is close to the River Severn LWS. These sites are of high value for wetland wildlife, and they require water that is suitable both in terms of quantity and quality for their continued survival.

208. The District Council note that the MPA have consulted the County Ecologist, Worcestershire Wildlife Trust and Natural England. In light of the sensitive nature of the surrounding area, the District Council urge the MPA to have regard to the consultation responses received to ensure that the County Council successfully discharges its duties with regard to biodiversity and protected species. Notwithstanding this, the District Council consider that ecological mitigation and enhancement measures should be secured by planning condition, if planning permission is granted, and recommend that the applicant be required to submit compliance statements to confirm that the necessary mitigation and enhancement measures have been provided. The District Council also recommend that the MPA seek expert advice in relation to the submitted Arboricultural Report and Veteran Tree Strategy.

209. Should planning permission be granted, the District Council recommend the imposition of conditions to control the phasing of both the extraction and restoration of the site.

210. With regard to traffic and highway safety the District Council welcomes the revised design of the proposed access arrangement, which now includes for a right turn lane ghost island serving the development access. The District Council consider that consideration should be given to restricting the routes that HGVs take when approaching or leaving the site and that no loaded lorries shall leave the site unless they are sheeted, or the load is otherwise adequately secured. Furthermore, the public highway located around the site entrance should be kept clear of mud or other deleterious material deposited on the highway by vehicles associated with the proposed development.

211. The District Council note that it is anticipated that inert materials would be sourced within a 20-mile radius of the application site, derived within a catchment

containing large towns and cities including Worcester, Tewkesbury, Cheltenham and Gloucester. It is important that inert waste is sourced as locally as possible and, therefore, the MPA may wish to consider the imposition of a condition requiring these sources to be agreed prior to any importation taking place.

212. **Tewkesbury Borough Council** make a number of observations and comments on the application. The Borough Council state that the applicant's response to the Regulation 25 Request (further information) in respect of noise appears satisfactory and confirms that all operational noise levels would be in line with the relevant guidance. The submitted Noise Management Plan appears satisfactory; however they recommend that a scheme for noise monitoring be included in the Noise Management Plan.

213. In relation to the proposed concrete batching plant in Gloucestershire they consider that the proposed noise mitigation measures, bunding, acoustic fencing and broadband reversing alarms, as recommended in the original Noise Assessment, together with the proposed hours of operations are adequate and that the cumulative (quarrying and processing) noise levels at nearest sensitive receptor(s) are within the levels set out in the PPG for mineral operations. In terms of any planning condition relating to noise, they recommend conditioning the use of only broadband reversing alarms for site vehicles and if Gloucestershire County Council, as the MPA for the proposed processing plant, have any significant concerns regarding the Noise Assessment predictions, then they may also wish to consider requiring a Noise Assessment(s) to be undertaken once the processing plant and the concrete batching plant are operational.

214. With regard to the vibration, the Borough Council state that in terms of the predicted worse case vibrational impact at Puck Cottage (0.1mm/s PPV) this is within the Worcestershire Regulatory Services' guidance value of 1mm/s PPV for occupied residential dwellings and, therefore, considered acceptable in terms of vibration nuisance.

215. In respect of air quality, the Borough Council state that the Air Quality Assessment is satisfactory and is in line with the relevant policy and guidance. The Assessment concludes that there would be moderately adverse impacts as a result of the proposed development at all near receptors and slight adverse impacts elsewhere provided that the dust mitigation measures outlined in the Dust Management Plan are adhered to. The Borough Council recommend the imposition of a condition requiring continuous dust monitoring at (a) location(s) agreed with the MPA on the site boundary before commencement of operations as an early warning system of excess dust in the atmosphere and to complement the submitted Dust Management Plan.

216. They have also considered the comments from local residents' groups in terms of noise, air quality and dust impacts and they reiterate the response from Worcestershire Regulatory Services (see Worcestershire Regulatory Services comments below).

217. They state in relation to the proposed concrete batching plant in Gloucestershire that this would require a permit to operate. As such it would be for the local permitting authority to determine if they consider the need for the stockpiles to be stored in three sided bays in addition to the proposed 3 to 5-metre-high bunds around the boundary of the processing / storage area. Any stockpile heights would need to be restricted, to

minimise wind whipping, so that they do not exceed the bund heights, and this would have to be a condition of the permit together with management conditions to minimise particulate matter being deposited outside of the site boundary. They do not consider that such dust suppression systems would be necessary given that the proposed concrete batching plant is surrounded by the bunds and that the aggregate bays, conveyors, silos and mixing / concrete discharge building should be enclosed / partially enclosed. In any case, this would be for Tewkesbury Brough Council's Environmental Health Department to determine if such a system should be installed when considering any application for a permit to operate the concrete batching plant.

218. With regard to contaminated land, they have no adverse comments to make.

219. Tewkesbury Borough Council's Conservation Officer states that the development site and the proposals within it have the potential to affect the setting of a number of designated heritage assets within Tewkesbury Borough identified as being within the visual envelope of the proposals. These include a number of nearby Grade II Listed buildings including Puckrup Hall and associated cottages and ancillary buildings, Twyning Farm and associated structures, Bow Bridge Cottage and associated barn. There are also more distant listed buildings and the Church End Conservation Area. There may also be non-designated built heritage assets that could be affected; however, no specific examples were identified at the time of initial inspection. Visual impact upon Towbury Hill Camp Scheduled Monument would be deferred to the County Archaeologist for consideration.

220. An assessment of designated and non-designated built heritage assets is included within the Archaeological Desk Based Study. Given the divergent nature of the work required for a desk-based study of archaeology as opposed to an assessment of visual impact upon the setting of built heritage assets it would be expected that the two component reports be separated or at the very least the title of the study amended accordingly. It is noted that no non-designated heritage assets were observed to be affected by the development.

221. The Desk Based Study assesses the impact of development upon listed buildings and identifies all the listed buildings within close proximity to the site. The findings suggest that the impact is either not significant or minor adverse. However, at the time of this study very little information had been submitted with this application in regard to the height and form of the structures associated with the batching plant. This information has now been provided. Likewise, in other areas of the extraction sites presumably there may be stockpiles of gravel and associated conveyors which could also result in tall and visually intrusive forms. There still does not appear to be any definitive information regarding the appearance or the anticipated forms and extent / heights of new structures.

222. In regard to the further information provided none of it appears to assess the impact of the proposed concrete batching plant which is close to the Grade II Listed Twyning Farm including walled garden and dairy. The Landscape and Visual Impact Assessment (LVIA) Addendum has a section on listed buildings, but only discusses the impact on Puck Cottage and Bowbridge Cottage and is silent regarding Twyning Farm.

223. On the basis of the information available, a site visit was conducted by Tewkesbury Borough Conservation Officer. They consider that there would appear to

be no direct visual harm to any of the heritage assets identified (in Tewkesbury Borough) around the gravel extraction or the concrete batching plant. As for impacts upon heritage due to vibration, noise, light and dust from the proposed plant and activities they observed that there is likely to be some additional noise and traffic movements, however, based on the information available it is not realistically possible to attribute any tangible harm to heritage assets. In view of this, they state that there does not appear to be a policy reason regarding heritage to object to this proposal.

224. In response to the Regulation 25 Request (further information) consultation, the Conservation Officer confirmed that he had no further comments to those set out above and do not require any further information. However, the Conservation Officer recommends the imposition of a condition that the infrastructure of the batching plant be finished in a recessive colour such as dark green.

225. With regard to impacts upon trees, the Borough Council comment that there are a significant number of individual trees, groups of trees and hedgerows within the application site that would be affected by the proposal and are important to the biodiversity of the area. Veteran trees have irreplaceable habitats with decay features which contribute to their biodiversity attributes. The Borough Council are also concerned about the potential impacts the development would have on surrounding hedgerows and trees which would in turn have an indirect impact on wildlife in the area. The proposal would have a detrimental consequence on the health of existing trees and hedgerows by damage which includes their soils, ground flora or fungi. There is a high risk of damage around the tree roots from machinery and vehicular traffic, particles of pollution in the ground around them from chemicals / fuels that can leach into soil and a change of soil levels around woody vegetation, which can deplete oxygen or increase compaction, both of which can be fatal to roots, causing root death and dieback. There would be an increase of pollution and dust which may affect the trees' ability to photosynthesise which could result in slower growth, root damage and over time, death. This could result over time to a change in the landscape character of the area.

226. The Borough Council also draw the MPA's attention to the 10 separate third party objections and 1 from Twyning Parish Council, and request that they are taken into account in the determination of the planning application.

227. **Planning Casework Unit (PCU)** confirm that they have no comments to make on the ES.

228. **Environment Agency** have no objections to the proposal, subject to the imposition of conditions regarding ground and surface water monitoring scheme; a scheme for flood storage compensation including flood risk betterment (post scheme) and improvements to flood flow; and fish rescue being carried out in accordance with the submitted Fish Rescue Strategy.

229. With regard to hydrogeology and hydrology, the Environment Agency state that they are in agreement with the assessment of potential impacts from this development as discussed for operational, restoration and post development phases and the mitigation proposed to reduce any of the identified impacts.

230. In respect to the Regulation 25 Request (further information) submission the Environment Agency re-confirm that they have no concerns. They comment that they

are satisfied that any relevant impacts on the water environment could be suitably mitigated against to enable the development to proceed. The Environmental Impact Assessment assessed the potential impacts from this development for operational, restoration and post development phases and the mitigation proposed to reduce any of the identified impacts. The Regulation 25 Request (further information) submission reinforces the assessment in the Environmental Impact Assessment, confirming that there would be no adverse effects upon the surrounding water environment and the Environment Agency concur with these findings, subject to a scheme of monitoring for surface and groundwater is carried out to observe any potential changes from quarrying operations upon the water environment, and to ensure that mitigation is applied where necessary should any adverse effects be noted during quarry operations.

231. The Environment Agency notes that clarification has been provided as to the proposed clay cut-off wall (interceptor ditch) and how this would operate during site works (Phases 1 to 9). The details confirm that there would be no groundwater abstraction from the sand and gravel aquifer for dewatering and, therefore, no drawdown effects placed upon the local water environment. The Environment Agency are satisfied with this technical solution, with the overarching being that no dewatering of the mineral would be necessary to enable extraction of the mineral. It is understood that the Flexible Working Areas A and B would be worked wet which are within the floodplain, and there would be no pumping, no cut-off installed and no de-watering of these areas. The mineral in these areas would be worked dry above the water table and wet beneath it.

232. With regard to the proposed clay cut-off wall, the Environment Agency understand this would be constructed from site won materials extracted from the underlying Branscombe Mudstone Formation, which underlies the sand and gravels in this valley which is a good use of local materials. The Environment Agency agree that the Branscombe Mudstone Formation is a good material to construct the clay bund due to its geological and geotechnical properties. The construction of the cut-off ditches into this clay strata would also provide a good geological foundation to these structures and provide the hydraulic clay cut off required for this proposal to work effectively and convey water as proposed around the perimeter of the site. However, overtime these ditches would build up with silt at the bottom and be colonised by vegetation altering levels and the site operator would need to maintain the integrity of the ditches to make sure they are working effectively for their primary purpose conveying groundwater around the site.

233. The Environment Agency recommend that chemical herbicides are not used for vegetation clearance to protect water quality in the surrounding aquifers and mechanical methods should be used instead.

234. The Environment Agency agree with the proposal to monitor groundwater levels outside of the bund on the western side of the site to actually monitor the groundwater levels between the excavation void and the local waterbodies and thus confirm / demonstrate whether pre-development baseline conditions are being maintained during the operational and restoration phases. It is understood that the principle of the groundwater interceptor drains which are routed around the northern and southern perimeters of quarry Phases 1 to 9 is that when the base of the ditch starts to move above the groundwater level on the northern boundary, then the intercepted groundwater flow within the ditch would start to recharge and infiltrate back into the

underlying sand and gravel strata. On the southern boundary the ditch base is likely to remain in contact with the underlying groundwater, enabling it to recharge intercepted groundwater back into the aquifer. The Environment Agency agree in principle with this approach.

235. The Environmental Impact Assessment provided much detail regarding the importation of inert waste to enable restoration of Phases 1 to 9 back to pre-extraction ground levels. Flexible Working Areas A and B would be restored to waterbodies and wetland using only site derived mineral waste (silts and clays) and would have a final landform below pre-extraction ground levels. The Environment Agency encourages the applicant to minimise the need for infill and to maximise the flood storage potential and associated biodiversity net gain. The importation of any inert waste post extraction is a landfilling activity which would require an Environmental Permit under the Environmental Permitting Regulations. Restoration of this site would be controlled by the Environmental Permit conditions and the Environment Agency have no concerns from a hydro-geological/groundwater protection point of view with this restoration proposal, as long as the materials being brought in are screened sufficiently. The Environmental Permit would require the site to have an adequate liner with an appropriate monitoring network to demonstrate compliance. The Environmental Permit would also control emissions to land air and water (e.g., noise and dust emissions).

236. It is important that before the material is even brought to site, it should be sorted at source so that only inert materials are accepted at the site before landfilling and they would need to be appropriately screened and Waste Acceptance Criteria (WAC) tested to make sure that they are compliant and suitable for use as suggested as inert landfill under the Environmental Permit. The site-specific permit itself would detail the inert materials which can be landfilled at the site.

237. The Environment Agency also comment that a permit to discharge may be required where a discharge is to be made from a septic tank or onsite package treatment sewerage plant.

238. With regard to oil tanks on site, the Environment Agency state that the location and size of these tanks would have to meet the requirements of the Oil Storage Regulations and all appropriate pollution prevention measures should be in place to protect the water environment. To prevent pollution of the water environment any facilities for the storage of oils, fuels or chemicals should be sited on impervious bases and surrounded by impervious bund walls.

239. With regard to flood risk, the Environment Agency comment that sand and gravel workings are classed as 'water compatible' development and although two of the proposed excavation areas do fall within Flood Zone 3 (high probability of flooding), the proposed use is suitable in all flood zones. Parts of the site also lie within Flood Zone 2 (medium probability of flooding) and Flood Zone 1 (low probability of flooding). The majority of the excavation areas are located in Flood Zone 1. A Flood Risk Assessment has been undertaken and the Environment Agency confirm they are generally satisfied with the document which confirms that excavation areas (Flexible Working Areas A and B) in the floodplain would be restored to open water and wetlands with ground levels lower than existing so post development there would be a 'gain' in flood storage at the quarry.

240. The Flood Risk Assessment confirms that Phases 1 to 9 would be restored to or below existing ground levels. The key is, therefore, to ensure that flood risk to third parties is not increased by the development by impacting upon flow routes or by the loss of flood storage due to stockpiles of material or landscaping bunds. As highlighted in the Flood Risk Assessment, previous pre-application discussions have taken place with the Environment Agency where it was agreed that hydraulic modelling would not be required, providing flood storage would not be reduced at any phase of the works and that flow routes would be maintained. The Flood Risk Assessment includes details of the flood storage compensation scheme. Certain assumptions have been made as part of this storage assessment, for example that 20% of the length of the bunds would be open to allow floodwater to pass through the structure so this would need to be adhered to. However, the Environment Agency are satisfied with the information submitted which confirms that there would not be any losses resulting from stored material or the screening bund, as this is being offset by the quarrying works and the storage proposed to be provided is on a level for level volume for volume basis. Any impacts resulting from temporary bridges are likely to be negligible although this is also being compensated for. However, there is no mention of conveyance and impacts on flood flow routes, but this could be controlled by a condition requiring a scheme for flood storage compensation including flood risk betterment (post scheme) and improvements to flood flow.

241. In response to comments from local residents, in particular the residents' group REACT in relation to flooding and the proposed drainage regime. The Environment Agency state that in most places the ditch is higher than the design fluvial flood level anyway so would not be impacted by the River Severn backing up it. In other parts backing up of the ditch could occur (water will always find a way to reach the peak whether it is through ditches or over land) but is located away from the local properties. There is always a risk water cannot drain into the River Severn when it is high, although the catchments are so different in size the peak of the River Severn should not be up when the ditch is peaking.

242. In response to the comments from Ripple Parish Council regarding the role of Ripple Brook which feeds into Mythe Brook, and the relevance of any impact to the Uckinghall flood relief scheme, the Environment Agency state that they have previously made comments in relation to fluvial flood risk in the context of the Flood Risk Assessment, and the nature of the proposals i.e., a quarry which is 'water compatible' development, including that material is going to be excavated from the floodplain, along with future management proposals, which would be beneficial in the long-term. Their original response to this planning application confirmed that they are generally satisfied with the document which confirms that excavation areas (Flexible Working Areas A and B) in the floodplain would be restored to open water and wetlands with ground levels lower than existing so post development there would be a 'gain' in flood storage at the quarry. The Flood Risk Assessment also confirms that Phases 1-9 would be restored to or below existing ground levels.

243. Flood storage has been provided with Appendix 13 of the Flood Risk Assessment showing details of the flood storage compensation scheme and calculations up to the design flood level of 13.20 metres AOD. The Lead Local Flood Authority may have comments to make as the watercourses in question (Ripple Brook and Mythe Brook) are classed as 'ordinary' under their jurisdiction, but the major influence here is the River Severn – Main River, backing up or limiting flows away from the tributaries.

244. The Environment Agency state that Uckinghall flood defences are designed to a level of 13.2 metres AOD, which represents the 1% Annual Exceedance Probability (AEP) flood level. The design flood level at the Bow Farm Quarry is set out in the Flood Risk Assessment. Appendix 13 of the Flood Risk Assessment states *“the peak 1:100-year flood (Flood Zone 3 – ‘active floodplain’) level, including a 20% climate change allowance, is 13.19 metres AOD. However, for the purpose of this volumetric [flood storage] exercise, the ‘active floodplain’ is conservatively assumed to be 13.20 metres AOD (rather than 13.19 metres AOD)”*. The Environment Agency consider it is unlikely that the Uckinghall flood defence scheme would be impacted by the proposed works. The Flood Risk Assessment does not show a significant rise in flood levels as a result of the works.

245. With regard to the tributaries (Ripple Brook and Mythe Brook), due to the scale of the Severn floodplain and the influence of the River Severn, any change to levels in the tributaries would be insignificant in comparison. Given the catchment sizes flood events on the River Severn and the two tributaries are not likely to occur at the same time. If flow levels in the River Severn are high, it does not necessarily follow that flow levels in the tributaries would be high, and vice versa. The rivers are likely to behave very differently through different events.

246. With regard to the comments about potentially “downgrading” wastes to make them inert and therefore suitable as restoration materials, whilst some natural soils may be contaminated with hazardous elements, there is currently a ban on mixing / blending wastes to simply “dilute” hazardous components down to safe levels. Barring changes to existing environmental protection legislation, any review of current hazardous classifications would of course require very careful technical assessment, it is not simply a case of “relabelling” materials to say they are now “inert”.

247. With regard to the Control of Major Accident Hazards (COMAH), according to the Environment Agency’s records, there is an adjacent ‘major accident hazard pipeline’ in proximity of the development site. The developer is advised to check with the pipeline operator where known, or the Local Authority to inform land use planning and before proceeding.

248. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, the Environment Agency state that after reviewing the ES addendum, they agree in principle with the cumulative assessment undertaken and make the following comments below.

249. Although the proposed sand and gravel quarry developments at Ripple East (by CEMEX) and Bow Farm (by M C Cullimore (Gravels) Ltd) are geographically near to one another, in terms of risk to the water environment, Bow Farm Quarry would not be dewatered thus reducing risks to water receptors, utilising a low permeability cut-off trench to effectively seal the Bow Farm Quarry site from the surrounding gravel aquifer. The Ripple East Quarry development on the other hand, would be dewatered lowering the groundwater table locally within the sands and gravels to the development with mitigation and monitoring proposed to protect water receptors as identified and discussed in the application and accompanying ES. Dewatered groundwater at Ripple East Quarry would be pumped into the adjacent watercourse to the west of the site conveying this water to Ripple Lake (Ripple Lake & The Napps

LWS) further south to mitigate and compensate for any impacts from drawdown during quarry dewatering activities at the quarry. The Bow Farm Quarry development, therefore, cannot be affected by Ripple East Quarry dewatering as Bow Farm Quarry would in effect be cut-off from the surrounding gravel aquifer.

250. The applicant's consultants have reviewed the documentation provided by CEMEX for the Ripple East Quarry development, and they agree with the submitted CEMEX cumulative impact assessment concluding that both developments can happen simultaneously without affecting each other and without increasing the impact on the surrounding environment. The proposed impermeable cut-off at Bow Farm Quarry would limit the radius of the dewatering implications from the pumping activities at Ripple East Quarry. The addendum also states that whilst the baseline conditions may differ from the original Bow Farm Quarry ES and Hydrological and Hydrogeological Impact and Flood Risk Assessment, if dewatering commences on the Ripple East Quarry site prior to cut-off placement at the Bow Farm Quarry site, once the cut-off is in place (which is prior to below groundwater table mineral excavation at Bow Farm Quarry), the findings and conclusions reached in the original ES and Hydrological and Hydrogeological Impact and Flood Risk Assessment for the proposed mineral extraction at Bow Farm Quarry would remain entirely valid, and the proposed dewatering activities, groundwater dewatering discharge and low-level restoration associated with the proposed development at Ripple East Quarry would have no detrimental impacts on Bow Farm Quarry site.

251. In terms of cumulative fluvial flooding, the Environment Agency are satisfied with the conclusion reached in addendum, that there should be no cumulative flood risk impact resulting from the Ripple East Quarry and Bow Farm Quarry sites operating adjacent to each other providing works are carried out in accordance with the submitted Flood Risk Assessments for the separate applications.

252. In summary, the addendum concludes that there would be no increased cumulative impact with respect to water related matters when considering both Ripple East Quarry and Bow Farm Quarry proposal, and the proposed dewatering at Ripple East Quarry site would most likely be restricted by the impermeable cut-off at Bow Farm Quarry, limiting the impact of the dewatering to the south of both Ripple East quarry and Bow Farm Quarry developments.

253. The Environment Agency agree in principle with the above conclusions and consider that the risk of cumulative impacts from both the Ripple East Quarry and Bow Farm Quarry proposals occurring simultaneously are low to the water environment in the surrounding area, as long as appropriate mitigation and water monitoring are implemented for both developments, as outlined in the Environment Agency's consultation response to both applications (set out above).

254. In response to the HRA Appropriate Assessment (AA), the Environment Agency originally requested further information in relation to impacts upon migratory fish. In response to the additional information from the applicant providing a Fish Rescue Strategy, and the subsequent updated HRA AA, the Environment Agency comment that they note the Strategy is principally directed to the proposed flexible working phases located in Flood Zone 3, but the Strategy would be applied site wide, if and when required. The Environment Agency consider that the Fish Rescue Strategy addresses their previous concerns and is satisfactory. They recommend securing the

Strategy with the imposition of an appropriately worded planning condition. The Environment Agency confirm they have no further comments on the HRA AA.

255. **UK Health Security Agency (formerly Public Health England)** commented that based on the information submitted, they have no significant concerns regarding the risk to health of the local population from this proposed development, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice.

256. UK Health Security Agency also note that this development, or specific phases of it may require an Environmental Permit from the Environment Agency, for which UK Health Security Agency would be a consultee.

257. UK Health Security Agency consider that the main concerns from an environmental public health perspective are nitrogen dioxide (NO₂) emissions from vehicles travelling to and from the site, and on-site movements, and fugitive emissions of dust and fine particulates in the Particulate Matter (PM) PM₁₀ (particles with a diameter of 10 microns or less), and PM_{2.5} sized fractions (particles with a diameter of 2.5 microns or less), from on-site operations and vehicles travelling to and from the site, and on-site movements. UK Health Security Agency also notes that the submitted ES included two assessments concerned with the risk to air quality from dust and other PM, and NO₂ emissions, respectively. The assessments demonstrate that the annual mean and one hour mean UK Air Quality Strategy (AQS) objectives for NO₂ are forecast to be met at the façade of all existing receptors. The PM₁₀ and PM_{2.5} concentrations are also forecast to meet their respective UK National Air Quality Strategy (AQS) objectives, at all modelled receptors.

258. **The County Public Health Practitioner** originally commented that they had no objections to the proposal but would welcome a full Health Impact Assessment.

259. Following the submission of a Health Impact Assessment the County Public Health Practitioner confirmed that they had no objections, but that the applicant has submitted a short Health Impact Assessment on the supplementary planning document template, and they are aware that this may have been interpreted as covering what is required. However, Planning for Health in South Worcestershire Supplementary Planning Document (2017) states *“the exact format is not prescribed, providing that it considers the issues specified in the guidance boxes across this SPD and summarised on the HIA Template”*. The County Public Health Practitioner recommends that an organisation proposing to carry out quarrying, which can have a huge detrimental effect on health and wellbeing, address the concerns in greater detail and specify what mitigation measures would be taken. This should be on a stand-alone document addressing health and wellbeing and not integrated in other documents, although some of the information would overlap.

260. The County Public Health Practitioner has taken into account the responses from UK Health Security Agency which state that it has ‘no significant concerns regarding risk to health of the local population from this proposed development, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice’, Worcestershire Regulatory Services and the chapters in the ES which address matters pertaining to health and wellbeing such as noise, dust and air quality.

261. The County Public Health Practitioner understands the need to balance health and wellbeing with the economy and recognise that the risk of adverse effects has been recognised and there are proposals to address this through mechanisms including:

- Dust control measures be fitted to plant to avoid unacceptable emissions of dust
- Care be taken to avoid unacceptable dust emissions when inert material with relatively low moisture content is handled, especially in dry windy conditions
- Conditions Monitoring will be undertaken by Officers from Worcestershire County Council and Gloucestershire County Council to ensure adherence to requirements of planning conditions
- All pneumatic tools/compressors used on site shall be silenced or be sound reduced models and located away from noise sensitive receptors where possible.

262. On this occasion, given the matters have been considered in the ES and recommended mitigation measures would be implemented, the County Public Health Practitioner raises no objections to the proposal.

263. In response to the Regulations 25 Submission (further information) relating to cumulative effects, the County Public Health Practitioner states that they have no further comments to those set out above.

264. Worcestershire Regulatory Services (Contaminated Land and Air Quality) have no objections in respect to contaminated land or air quality, subject to the imposition of a condition requiring continuous dust monitoring at locations to be agreed with the MPA on the site boundary before commencement of operations as an early warning system of excess dust in the atmosphere and to complement the submitted Dust Management Plan.

265. They state that the Air Quality Assessment is satisfactory and is in line with the relevant policy and guidance. The report concludes that there would be moderately adverse impacts as a result of the proposed development at all near receptors and slight adverse impacts elsewhere provided that the dust mitigation measures outlined in the Dust Management Plan are adhered to. They also state that the submitted Dust Management Plan appears satisfactory. They state they are satisfied that the submitted air quality / dust information is acceptable. In terms of dust exposure for people working on the site, this would be a matter for the Health and Safety Executive (HSE) under the relevant work regulations.

266. They state that they have reviewed public comments, in particular the comments from local residents' groups with respect to PM_{2.5} (particles that have diameter of 2.5 microns or less), the guidance (Institute of Air Quality Management (IAQM) 'Guidance on the Assessment of Mineral Dust Impacts for Planning', May 2016(v1.1)) states that *"the other potential air quality impact is the increase in ambient suspended PM concentrations local to the site. As noted earlier, the PM₁₀ fraction is relevant to health outcomes. For quarries most of this suspended dust would be in the coarse sub-fraction (PM_{2.5-10}), rather than in the fine (PM_{2.5}) fraction"*. Any PM_{2.5} levels in

the area could not readily be attributed to the quarry and are likely to be transboundary or associated with agricultural activities and the M50 Motorway.

267. With regards to the statement from a local residents' group that "*the applicant in section 3.5 notes that current background levels of harmful 10 micron particles are already at over 30% of the permissible levels so again it is inconceivable that the levels will not be exceeded when mining starts*". The guidance states that "*if the long-term background PM10 concentration is less than 17 micrograms (μg) / cubic metre (m^3) there is little risk that the Process Contribution would lead to an exceedance of the annual-mean objective*" and "*evidence provided by the Minerals Guidance Working Group suggests that the maximum annual mean Process Contribution is likely to be around 15 $\mu\text{g}/\text{m}^3$ although occasionally it can be greater*". The background PM10 concentration for the opening operational year is estimated to be 12.52 $\mu\text{g}/\text{m}^3$ (Department for Environment, Food & Rural Affairs (2019). *Background Mapping data for local authorities – 2017*), therefore, it is unlikely that the annual-mean objective for PM10 would be exceeded.

268. With regard to Church End Nurseries, an assessment of the risk has been carried out for activities affecting this location and the Magnitude of Dust Effects was assessed as "Negligible".

269. In response to the comments from the local residents group REACT, which "*require clarification on the provenance of the 'background concentrations'*". Worcestershire Regulatory Services comment that the background PM concentrations quoted in the assessment are taken from the Defra Background Mapping Data tool for local authorities.

270. REACT go onto state that "*we feel that there are many areas where details on crucial aspects are entirely lacking, amongst these are lorry movements of the Inert materials. There are no details as to how the materials will reach the site or how they will be transported around the site. These movements will also create dust, which has not been taken into account in the Dust Mitigation Report*". Worcestershire Regulatory Services comment that they cannot comment on how vehicles would reach the site or how they would be transported around the site or the routing of the vehicles to and from the site, however, dust control measures of vehicle movements on the site and HGVs leaving the site are addressed by the applicant in the submitted Dust Management Plan.

271. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, Worcestershire Regulatory Services state that they have reviewed the ES addendum and note it concludes that the proposed application for Ripple East Quarry does not impact the original Dust Assessment or Dust Management Plan for Bow Farm Quarry and it is considered that the proposed workings at both sites can be operated simultaneously in a manner unlikely to cause significant adverse air quality impacts in the vicinity. Therefore, Worcestershire Regulatory Services have no adverse comments to make for air quality.

272. **Worcestershire Regulatory Services (Noise, Dust and Vibration)** have no objections to the proposal, subject to the imposition of conditions requiring an updated Noise Management Plan and controlling the operating hours.

273. They state that the submitted Noise Impact Assessment appears satisfactory and predicts that noise from the proposed activities would be compliant with the guidance on the planning for mineral extraction in plan making and the application process recommendations. The submitted Dust Assessment appears satisfactory and should minimise dust impacts due to the proposed good site management measures.

274. In terms of potential noise and dust from the concrete batching plant proposed in Gloucestershire, this activity would require an Environmental Permit from the local authority. In the experience of Worcestershire Regulatory Services when such facilities are properly managed, they do not create significant noise or dust emissions and any deposition of dust beyond the site boundary would be a breach of a permit condition and dealt with appropriately. In terms of noise exposure for people working on the site, this would be a matter for the HSE under the Noise at Work Regulations.

275. They state that they have reviewed public comments, in particular the comments from local residents' groups, and consider that the applicant's responses to the Regulation 25 Request (further information) relating to noise appear satisfactory and confirm that all operational noise levels would be in line with the relevant guidance.

276. Worcestershire Regulatory Services understand that the sound pressure levels used within the noise assessment are actual measured levels as opposed to predicted sound power levels based on the BS5228 reference tables and, therefore, should be more accurate.

277. In terms of the receptor positions chosen these appear to have been addressed within the applicant's responses to the Regulation 25 Request (further information).

278. In relation to noise impacting Church End Nurseries and Puck Cottage, Worcestershire Regulatory Services have reviewed the submitted further information and the applicant's response and continue to raise no objections on noise grounds.

279. In relation to noise impacting Puckrup Hall Hotel and Golf Course, they also consider that the response from the applicant is acceptable and the proposed additional noise barriers around the proposed processing / concrete batching plant area would further reduce noise impacting these areas and should ideally be implemented.

280. They consider that the submitted Noise Management Plan appears satisfactory, however, they recommend that a scheme for noise monitoring be included in the Noise Management Plan. In view of this, a condition should be imposed requiring the Noise Management Plan to be updated and submitted for approval. They originally recommended that the MPA may also wish to consider restricting noisy works to after 08:00 hours Mondays to Saturdays in order to minimise early morning noise, but they note the applicant's response stating that this should not be necessary due to the prevailing noise climate in the area and therefore, Worcestershire Regulatory Services withdraw this recommendation.

281. With regard to the vibration, Worcestershire Regulatory Services state that potential structural damage to Puck Cottage is outside of their remit. In terms of the predicted worst case vibrational impact at Puck Cottage (0.1mm/s PPV) this is within the Worcestershire Regulatory Services' guidance value of 1mm/s PPV for occupied

residential dwellings and, therefore, considered acceptable in terms of vibration nuisance.

282. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, Worcestershire Regulatory Services state that the submitted addendum concludes that the impact at the nearest sensitive receptors should not be significant and would not require any additional mitigation measures to be proposed. Worcestershire Regulatory Services, therefore, have no objections to the proposal in terms of the predicted cumulative noise and dust impacts from the proposed Ripple East and the Bow Farm quarrying activities.

283. **Natural England** have no objections to the proposal in terms of potential impacts upon the Severn Estuary SPA, SAC and Ramsar site, subject to conditions securing the mitigation measures outlined within the HRA AA which includes maintenance of all plant, machinery and vehicles; safe on-site parking; safe storage of on-site chemicals, oil and fuel; collection and off-site removal of wastewater from the site; implementation of best practice pollution guidelines; production of a pollution incident contingency plan; no uncontrolled run-off would be allowed to leave the site; implementation of surface water attenuation and management scheme; management of silt laden water via silt lagoons; groundwater level monitoring; grass seeding or matting (e.g. using a pre-seeded erosion control blanket) the bunds associated with the silt lagoons; implementation of a Dust Management Plan; single span bridges over the Ripple / Mythe Brooks; restricting all quarrying operations to normal daylight working hours; implementation of Noise Mitigation Strategy; retention of existing vegetation between proposal and the Ripple Lake and Napps; and the development being carried out in accordance with the submitted Fish Rescue Strategy.

284. Natural England state that they have reviewed the updated HRA AA produced by an ecological consultant on behalf of Worcestershire County Council, as competent authority, which includes an update in response to the Environment Agency's original comments on migratory fish. They note that they are a statutory consultee on the AA stage of the HRA process. The Council's AA concludes that the proposal would not result in adverse effects on the integrity of any of the sites in question. Having considered the assessment, and the measures proposed to mitigate for all identified adverse effects that could potentially occur as a result of the proposal, Natural England advises that they concur with the AA conclusions, providing that all mitigation measures are appropriately secured should planning permission be granted.

285. They also note that no further details have been provided in relation to timing of the soil stripping and soil bund construction, therefore, they advise mitigation measures requiring soil stripping is carried out outside the most sensitive winter months (December to March inclusive); and soil bund construction should also be completed before the sensitive winter months, are secured by the imposition of conditions.

286. Based on the information submitted, Natural England consider that the proposed development would not damage or destroy the interest features for which the Upper Severn Estuary SSSI and Severn Estuary SSSI have been notified.

287. In respect of the sustainable use of soils Natural England comment that the application would cover approximately 65 hectares, including approximately 32.9

hectares of BMV agricultural land. While the restoration proposals on some of the BMV land are for non-agricultural purposes, Natural England considers the proposed reclamation to a biodiversity afteruse acceptable, provided the methods used in the restoration and aftercare would enable for the land to retain its longer-term capability to be farmed to its land classification potential, thus remaining a high-quality resource for the future.

288. Natural England have confirmed that they are satisfied with the Detailed Restoration and LEMP and Soils Handling Strategy, except they consider that the applicant should design under land drainage into the scheme at the start rather than rely on retro designing if needed.

289. Natural England is satisfied that both the applicant's Soils and Agricultural Land Classification Report and the MAFF Agricultural Land Classification Survey constitutes a record of the pre-working agricultural land classification grading and physical characteristics of the land within the application site boundary.

290. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, Natural England state that they have reviewed the submitted ES addendum, and generally agree with the assessment provided and wish to make no further comments to those set out above.

291. **Royal Society for the Protection of Birds (RSPB)** do not wish to make comments on the application.

292. **Worcestershire Wildlife Trust** have no objections to the proposal, subject to the imposition of conditions requiring a Construction and Environmental Management Plan (CEMP), LEMP, soil management, lighting scheme, and long-term ground water monitoring scheme and maintenance and monitoring scheme for the Sustainable Drainage Systems (SuDS) and clay barrier.

293. The Wildlife Trust welcome the veteran trees proposals and are content to accept the approach set out. The Wildlife Trust note the comments of the County Ecologist and states that assuming that these minor matters can be rectified the Wildlife Trust would not wish to object to the proposed development and are content to defer to the County Ecologist for all further on-site biodiversity considerations. Notwithstanding this, the Wildlife Trust also note the comments submitted by Gloucestershire Wildlife Trust in relation to biodiversity net gain and recommend that the MPA ensure that the proposals are fully compliant with the requirements of Gloucestershire's mineral planning policy prior to determination.

294. They comment that there is a reasonable population of the scarce plant Mousetail on site. This is very unusual in Worcestershire and so the proposals for positive topsoil management and re-spreading are welcome. This should be covered by condition.

295. The Wildlife Trust state that the site is clearly important for bats including barbastelle and lesser horseshoe. Whilst Tree T91 (a dead oak) is the only confirmed bat roost tree to be lost as a result of the development, the loss of hedgerows may have an impact on commuting and foraging bats. The Wildlife Trust accept the ES's finding that this effect would be temporary and would most likely affect only common

species. Mitigation and compensation for harm would nonetheless be required and should form part of the aftercare package.

296. They note the submitted commentary regarding the use of a clay bund to reduce the risk of adverse impacts on ground water quality and flow through the nearby LWS and associated habitats. They welcome the clarification regarding the use of the bund and the hydrological monitoring associated with it. The Wildlife Trust reiterate the importance of this feature and the need for a rapid response to prevent pollution in the event of any failure and consider that monitoring would be required in the long-term. They note that this matter is covered in the submission and recommend the imposition of a condition requiring a long-term groundwater monitoring scheme.

297. The Wildlife Trust notes that the bridge design for the crossings of the Ripple / Mythe Brooks would be clear span. The Wildlife Trust welcome this and recommend this requirement is conditioned.

298. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, the Wildlife Trust state they accept the conclusions of the Ecology chapter of the addendum and do not wish to object to this application or add any further comments to those stated above and remain content to defer to the opinion of the County Ecologist for all remaining on-site biodiversity considerations.

299. Notwithstanding the above, the Wildlife Trust note the comments previously submitted by Gloucestershire Wildlife Trust in relation to the mechanisms used to secure and demonstrate biodiversity net gain in line with planning policy. The submitted ES addendum (further information) does not appear to resolve their concerns and Worcestershire Wildlife Trust refer the MPA to their comments for further consideration.

300. **Gloucestershire Wildlife Trust** comment that they challenge the claims made by the applicant that the restoration would deliver 'significant Biodiversity Gain' and 'significant net enhancements for biodiversity'. The existing and proposed habitat schedule does not appear to have used the Defra biodiversity metric (biodiversity metric is a biodiversity accounting tool that can be used for the purposes of calculating biodiversity net gain) and as a result it assesses losses and gains in hectares rather than biodiversity units. This is not best practice because it does not account for the multiple factors that influence this outcome other than area of habitat.

301. It also does not account for the adverse impact of the long extraction period. At present, the scheme has not provided sufficient evidence to demonstrate that is generating Biodiversity Net Gains and without this there is a risk that it is not delivering any. If irreplaceable habitats are lost then, according to Chartered Institute of Ecology and Environmental Management (CIEEM) best practice principles, net gain is not achievable and the best the site can aim for is no net loss. Gloucestershire Wildlife Trust requests that the latest version (version 3.0) of the Defra biodiversity metric is completed for this application to ascertain if the claims about biodiversity gains are substantiated.

302. Much of the land on the Gloucestershire side of the border is proposed to return to arable use following extraction. The restoration plan on the Gloucestershire side of the border should revert more land to semi-natural habitat in order to compensate for

the ecological and climate impacts of the extraction. Considering the carbon impact of this activity, Gloucestershire Wildlife Trust also asks for a carbon audit of the scheme.

303. Gloucestershire Wildlife Trust note the comments of the County Ecologist and acknowledge that there is no current legal requirement for the scheme to deliver Biodiversity Net Gain but contends the lack of policy guidance. Biodiversity Net Gain is part of the vision for the Minerals Local Plan for Gloucestershire, which also contains a requirement for *“mineral development proposals to contribute to the achievement of net gains in biodiversity” which “can be achieved either through the implementation of mitigation measures or site restoration”*. The exploration of net gains through the mitigation hierarchy is also mentioned in Policy DM06: ‘Biodiversity and geodiversity’ of the Minerals Local Plan for Gloucestershire, and paragraph 179 b) of the NPPF states that local plans should *“promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity”*.

304. Gloucestershire Wildlife Trust consider that the submitted ES purports to be delivering ‘significant Biodiversity Gain’ and ‘significant net enhancements for biodiversity’ without presenting evidence to support this claim. The Minerals Local Plan for Gloucestershire states that *“development proposals must be supported by robust evidence regarding biodiversity”*. The Defra metric is the only robust evidence to demonstrate whether Biodiversity Net Gain is being achieved. Without completing the Defra metric, Gloucestershire Wildlife Trust consider that sentences in the ES claiming biodiversity net gains are misrepresentative and should be retracted.

305. Gloucestershire Wildlife Trust supports the recommendations made by Worcestershire Wildlife Trust.

306. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, Gloucestershire Wildlife Trust reiterate their previous concerns outlined above. They also state that given that the Environment Act 2021 requires a management and monitoring period of 30 years for Biodiversity Net Gain, they do not agree with the statement in the ES addendum or in other accompanying documents that the restoration would provide a long-term net gain in terms of landscape and ecological enhancement and recommend that the 10-year aftercare period is extended, preferably to 30 years, to align with the Biodiversity Net Gain mandates.

307. **County Ecologist** has no objections to the proposal, subject to the imposition of conditions regarding tree protection and arboricultural methods, soil handling strategy, Dust Management Plan, Noise Management Scheme, Water Management Scheme, Biodiversity Mitigation Scheme, no external lighting to be installed in the part of the site in Worcestershire, restoration and aftercare scheme, updated LEMP and a 10-year aftercare period.

308. The County Ecologist is pleased to see that most documents have been updated as per their request in their previous comments. However, there are still some inconsistencies in the LEMP itself in relation to the management of hedgerow H4: Table 5.1 omits H4, and paragraphs 5.2 and 7.3 of the LEMP still refer to H4 as a ‘proposed’ hedgerow. Otherwise, the amended Arboriculture Report, Tree Protection Plan, Proposed Restoration drawing, and the Proposed Management Categories

drawing are all correct and consistent with regards to H4. Retention of the veteran crack willows is very much welcomed.

309. They comment that the amended Tree Protection Plan does now include all of the veteran trees listed in Schedule 1 of the Arboriculture report and are satisfied that this matter has now been fully addressed.

310. Some of the matter previously raised in relation to the LEMP have now been addressed, namely:

- Table 8.2 now includes collecting the arisings from wet grassland topping
- Paragraph 11.3 no longer specifies an island
- Numerical condition targets (e.g., % of species in a seed mix) have been added to the sections it was suggested for

311. However, in tables 16.1 and 19.1 of the LEMP the County Ecologist previously recommended that topping was removed from the management regimes, and that only cut and collect to 50% in alternate years is carried out. The County Ecologist recommends that this is addressed by the imposition of a condition requiring an updated LEMP.

312. As set out by Gloucestershire's County Ecologist, the need for fox proof fencing can be monitored and addressed during the aftercare period if objectives for waders are not being met.

313. The County Ecologist notes that a 10 years of aftercare period is now clearly committed to in the LEMP, with annual monitoring reports submitted to the MPA offering opportunities to address any problems.

314. In response to Gloucestershire Wildlife Trust's comments stating that the application should be accompanied by the Defra biodiversity net gain metric, the County Ecologist states that Gloucestershire Wildlife Trust raise some very valid points. However, unfortunately there is no national or local policy that requires the Defra biodiversity net gain metric to be applied at the current time, and the submitted habitat schedule is acceptable.

315. The County Ecologist has also reviewed comments from local residents; however, they consider that the matters raised in relation to ecology have either been appropriately addressed or are the subject of recommended conditions.

316. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, the County Ecologist states that they have nothing to add to their previous comments set out above. They have also reviewed the HRA AA, and consider it is a robust assessment of the potential for in-combination effects arising from the proposed quarry and proposals on neighbouring land. Given the conclusions of the updated HRA AA, the County Ecologist is confident that the mitigation and protective measures detailed are suitable to prevent an impact on the integrity of the Severn Estuary SAC / SPA / Ramsar site.

317. Following the submission of additional information from the applicant, in response to the Environment Agency's comments regarding migratory fish, and the HRA AA being updated accordingly, the County Ecologist states they were content

with the updated HRA AA, including the consideration of the Fish Rescue Strategy, and wish to make no further comments on the HRA AA.

318. **The County Landscape Officer** has no objections to the proposal on landscape grounds, subject to the imposition of conditions regarding a tree protection and arboricultural methods, soil handling strategy, Dust Management Plan, Noise Management Scheme, Water Management Scheme, biodiversity mitigation scheme, no external lighting to be installed in the part of the site in Worcestershire, phased restoration scheme, updated LEMP and a 10-year aftercare period. The County Landscape Officer also welcomes an interpretation signage for landscape / historic landscape.

319. In relation to veteran trees the County Landscape Officer welcomes the updates and clarifications concerning the proposed inclusion and management of the veteran tree assemblage and is satisfied this is now represented in the Tree Protection Plan.

320. In relation to the LEMP, the County Landscape Officer states that Table 5.1 does not include the new hedgerow management section H4. This is also referred to as a *proposed* hedgerow in paragraph 5.2. While these are minor errors, the County Landscape Officer recommends they are rectified by prior to commencement of development condition.

321. The County Landscape Officer states notwithstanding the above comment, the Restoration Plan and LEMP are sufficient in detail to deliver all measures and restoration aims. The County Landscape Officer supports the recommended conditions wording advised by the County Ecologist and Gloucestershire County Council Ecologist and considers that this would be sufficient to secure phased restoration.

322. Overall, the County Landscape Officer considers that most of the proposed workings would be relatively well-contained benefitting from the site topography and existing areas of woodland and mature hedgerows. For Worcestershire, Bow Farm is the main receptor where the greatest impact would be experienced, in addition to receptors traveling along the M50 Motorway, although with the latter the impact would be transient. The County Landscape Officer considers that the haul road and processing plant area would be largely screened in Worcestershire, again benefitting from the existing topography and established mature vegetation.

323. The County Landscape Officer welcomes the revised LVIA, and the clarifications concerning management of the northern boundary hedgerow (adjacent to Bow Lane) and is, therefore, satisfied that allowing the hedgerow to grow-out would assist in its functional screening of the development from receptors using Bow Lane.

324. With regard to Towbury Hill Camp Scheduled Monument, the County Landscape Officer wishes to defer to the comments submitted by Historic England and the County Archaeologist in terms of detailed matters of archaeological setting. However, having visited the application site, the County Landscape Officer concurs with the results of the visual impact assessment set out in the submitted LVIA and specific assessment prepared by Worcestershire Archaeology. The scheme would inevitably result in harm to the visual setting of the Scheduled Monument during the operational lifetime of the quarry. However, they are satisfied that the proposed restoration

scheme would return the site to a form that is consistent with the historic landscape character of both the setting and wider River Severn corridor.

325. In terms of restoration, the County Landscape Officer notes the site is currently largely arable, and distinctly a farmed landscape. The impact of the scheme would result in significant loss of the agricultural character during the lifetime of the quarry. However, the proposed, phased restoration programme would return large parts of the landscape to that of functional arable production, in keeping with the wider setting, whilst also delivering measurable enhancements for biodiversity net gain. The County Landscape Officer states that they are not qualified to assess the risks of poor hydrological performance in relation to the inert soil that would be imported to achieve the restoration levels. However, they agree with the Gloucestershire County Council's Landscape Advisor's comments to Gloucestershire County Council, which state: *"the application is for the importation of "inert" fill to make up the restoration levels; not "Impermeable". I would anticipate the fill used would be required by condition to meet or better current conditions such that the proposed agricultural land quality can be achieved. This, as has been done on other applications restoring to agriculture, can be conditioned"*.

326. The County Landscape Officer defers to the comments of Gloucestershire County Council's Landscape Officer concerning issues raised for the Gloucestershire part of the site.

327. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, the County Landscape Officer notes that the submitted ES addendum concludes in relation to landscape and visual impact, that cumulative effects would be limited to receptors using the M50 Motorway and the simultaneous operation of the Bow Farm Quarry and Ripple East Quarry does not materially alter the findings of the original submitted LVIA. The County Landscape Officer agrees with this conclusion.

328. The County Landscape Officer states that Ripple East Quarry is, by comparison to Bow Farm Quarry, a relatively limited area of working, and the County Landscape Officer does not consider that operations there would be sufficient to amplify the overall visual impact beyond the immediate setting of the M50 Motorway and possibly some sections of Bow Lane. Although in the case of the latter, the County Landscape Officer is confident this would be limited to glimpsed views for receptors travelling along the lane.

329. In conclusion, the County Landscape Officer considers the potential for cumulative landscape visual impacts to be minor and limited in area.

330. **Gloucestershire County Landscape Officer** comments in response to the Regulation 25 Submission relating to cumulative impacts that they have provided comments to Gloucestershire County Council in respect to the elements of the scheme in Gloucestershire, and this is provided below for information:

331. They have reviewed the ES addendum, which includes a 'LVIA Technical Note'. Whilst the Gloucestershire County Landscape Officer notes the conclusion of the assessment of landscape and visual impacts from the simultaneous operation of the Bow Farm Quarry and the Ripple East Quarry is that this *"does not materially alter the findings of the LVIA submitted as part of the Bow Farm ES in November 2019. As the*

two sites are physically separated by the M50 Motorway there would be an overall negligible cumulative landscape effect and a very localised and low effect of cumulative significance limited to a short section of Bow Lane and the over bridge crossing the M50 Motorway”.

332. Gloucestershire County Landscape Officer is in agreement with this conclusion; specifically, as it relates to the element of the Bow Farm Quarry application that lies within Gloucestershire, but also in respect of the wider Bow Farm application.

333. Gloucestershire County Landscape Officer goes on to state that the assessment of the cumulative impact primarily lies within the boundaries of Worcestershire (as Worcestershire has both the substantive quarrying elements and proximity of the two proposed quarry sites within the county). However, it remains important Gloucestershire County Council and Worcestershire County Council continue to share comments and observations, and hence the above comments are provided.

334. **The Cotswolds Conservation Board** wishes to make no comments on the application, given the distance of the proposal from the Cotswolds AONB National Landscape, located approximately 4.3 kilometres west of the foot of Bredon Hill, approximately 5.7 kilometres from elevated views on public rights of way on the western slopes of Bredon Hill and approximately 7.9 kilometres from ‘Banbury Stone’ viewpoint on the top of Bredon Hill.

335. In response to the Regulation 25 Submission (further information) regarding cumulative impacts, the Cotswolds Conservation Board confirmed that having reviewed the ‘Landscape and Visual Impact’ chapter of the ES addendum and given the site’s distance from the Cotswolds AONB National Landscape, they have no further comments to make on the application.

336. **Forestry Commission** have reviewed the application submission and confirm they have no comments on the application. Their mapping shows that there are no ancient semi-natural woodland or plantations on ancient woodland sites in the area.

337. **Canal and River Trust** wish to make no comments on this application.

338. **South Worcestershire Land Drainage Partnership** notes the comments from the Environment Agency in relation to flood risk and the proposed clay cut-off wall. South Worcestershire Land Drainage Partnership confirm that they have no objections to the principle of the proposal, or any requirement for conditions to be imposed. They direct the MPA to consult the Lead Local Flood Authority with respect to the applicant’s drainage strategy proposals.

339. **Lead Local Flood Authority** have no objections, subject to the imposition of conditions requiring detailed design drawings for surface water drainage and SuDS management plan. They go on to state they are generally supportive of the approach outlined within the Flood Risk Assessment.

340. **Gloucestershire County Council Lead Local Flood Authority** have no objections to the proposal, noting that the application is accompanied with a Hydrogeological and Hydrological Impact Assessment and Flood Risk Assessment which describes potential impacts on flooding that may be caused by the quarrying activity both within and outside the development boundary. The Assessments include

methods for mitigation of flood risk during the sites use and post extraction to ensure flood risk is not increased.

341. **Severn Trent Water Limited** have no objections to the proposal, and do not require any conditions to be imposed, as it would have minimal impact upon the public sewerage system.

342. **National Highways (formerly Highways England)** have no objections, subject to the imposition of a condition requiring a Geotechnical Assessment to ensure that the side slope of the excavation does not undermine the M50 Motorway and an inspection regime for the edge of the excavation adjacent to the Motorway, a procedure for addressing any stability issues should they be identified, and to assess any lowering of the groundwater table during excavation to ensure it does not undermine the M50 Motorway or the adjacent Bow Lane bridge structure.

343. National Highways consider that the trip generation and distribution methodology, including staff traffic impact assessment, to be robust and suitable.

344. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, National Highways reiterate that the above condition should be imposed should planning permission be granted.

345. **The County Highways Officer** has no objections to the proposal, stating that the application is supported by a Transport Assessment, and that this assessment follows the agreed methodology in terms of vehicle assignment. The proposed vehicle access is located off the A38 within the administrative boundary of Gloucestershire County Council. It is, therefore, a matter for Gloucestershire County Council, as the Highway Authority to comment on the suitability of the access design and the impact of traffic generation within Gloucestershire.

346. The impact on Worcestershire's highway network is limited to trips travelling on the A38 north of the M50 Motorway, this is estimated to represent 5% of the HGV activity which equates to 7 two-way trips per day. It is not considered that this level of activity would have any impact on the operation or safety of the A38 heading towards Worcester. Staff trips would be above this but given they would be in cars and there is some opportunity for sustainable access it is considered that the number of movements would be unlikely to be of such a scale to be noticeable given the level of background traffic.

347. The County Highways Officer has also reviewed the comments from the Action Groups and concludes that these issues relate to concerns specific to Gloucestershire's highway network and as such, do not warrant any additional comments.

348. The County Highways Officer considers that the proposed bridleway crossing is acceptable. The County Highways Officer also notes a public right of way runs parallel to the River Severn (Footpath RP-550), and that this does not appear to be impacted by the proposal. The applicant should adhere to their obligations with regards to this footpath.

349. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, the County Highways Officer comments that they have reviewed

the addendum, and they note the addendum concludes that *“no significant adverse effects would arrive from the simultaneous working of Bow Farm and Ripple East. This is in large part due to the M50 Motorway acting as an attenuation buffer between the two sites”*. As such the County Highways Officer confirm that their previous comments (above) remain valid and that they have no objections to the proposal.

350. **Gloucestershire County Council Highways Officer** raises no objections to the proposal, subject to the imposition of conditions regarding completion of proposed vehicular access, provision of cycle storage, visibility splays, provision of electric vehicle charging points / spaces, HGV Routing Strategy Management Plan, on-site parking and loading / unloading facilities, highway condition survey, and limit on mineral output (maximum of 250,000 tonnes) or 52,560 two-way HGV movements per year.

351. Gloucestershire County Council Highways Officer states that they have undertaken a robust assessment of the planning application. Based on the analysis of the information submitted they conclude that there would not be an unacceptable impact on highway safety or a severe impact on congestion. They consider there are no justifiable grounds on which an objection could be maintained on highway grounds.

352. **The County Footpath Officer** has no objections to the proposal, subject to the applicant adhering to their obligations with regards to the footpath. The County Footpath Officer notes that Footpath RP-550 is located adjacent, but outside the red line application site area, and requests that suitable measures are put in place to secure the site. This would ensure that footpath users are in no danger from the proximity of the site to the footpath and would assist the applicant in meeting their obligations to ensure that ‘the safety of the public using the right of way is to be ensured’ at all times.

353. **The British Horse Society (East and West Midlands)** have no objections to the proposal as it would not directly affect the equestrian rights of way within Worcestershire. However, they fully support the comments of their colleague for the British Horse Society (South-West) which were submitted to Gloucestershire County Council and would like to reinforce their colleague’s comments in relation to the opportunities this development presents for the creation of multi-use paths for equestrians, pedestrians and cyclists that cross the county boundary as part of the community pay-back requirement on developers.

354. The British Horse Society would welcome an ongoing dialogue to explore any opportunities in the future for public access, either during the mineral extraction period or upon restoration of the site.

355. **The British Horse Society (South-West)** note that the site would have a site speed restriction at all times. This is an important safety measure. There should be adequate signage indicating the speed restriction and in addition, towards the location of the crossing point with the bridleway, horse warning signs should be displayed and a ‘bridleway crossing’ sign be placed at the crossing point itself reinforcing the location of the bridleway. There would also need to be warning signs strategically placed on the bridleway warning of lorry movements and the crossing location.

356. The British Horse Society (South-West) notes that the proposed bridleway crossing would be in an area of reduced visibility due to the bridleway following the hedge line at a right angle to the access track. The signage and reduced speeds would mitigate these risks, but the importance of visibility to both bridleway user and vehicle user is paramount. All efforts should be taken to make the location of this crossing as safe as possible, for example by ensuring the hedge is not overgrowing thereby obscuring visibility.

357. This bridleway is situated in an area of flooding and prone to softer conditions. By the nature of the sand and gravel extraction process and the prevailing conditions the surface of the bridleway would be soft in the winter and the access track may become dusty in dry conditions. The British Horse Society (South-West) note that the proposed access track would be of a raised construction engineered to carry heavy traffic and the bridleway crossing would be over that newly raised surface with appropriate ramps to allow safe access and appropriate visibility. Additionally, wheel washing facilities for lorries would be available to prevent mud. The issue of dust from the application site is relevant, but the effects of dust on humans would be greater than on horses and this issue is, therefore, not considered from an access perspective.

358. It is important to ensure that horses do not stray on to the land from the field adjoining the proposed new access track. Currently the horses are kept off the application site and the area of the proposed access track to the site by a shallow ditch with a part fence / part hedged boundary. It would be best practise to ensure that the track is secure from horses either straying on it, or the noise of a vehicle using the track causing them to break through the current fencing arrangement.

359. They comment that where the proposed fence runs alongside the fields at the side of the bridleway a height of between 1.1 metres and 1.2 metres would be appropriate. However, where the field runs alongside the new access road to be constructed running up towards the main road towards the bungalow, then they recommend a higher height of 1.4 metres to prevent horses jumping out over the rails if they reacted to a lorry coming past.

360. The British Horse Society (South-West) would welcome an ongoing dialogue to explore any opportunities in the future for public access, either during the mineral extraction period or upon restoration of the site.

361. **Ramblers Association and Malvern Hills District Footpath Society** comment that they are content with the latest proposals for Bridleway Twyning ATW37 crossing of the haul road in Gloucestershire. They are, however, disappointed that an additional new public access route that they suggested (running eastwards from Footpaths ZTE49 and RP-550 adjacent to the River Severn to Bridleway ATW37, roughly following the county boundary along the southern boundary of Flexible Working Areas A and B and the southern and eastern boundaries of Phase 9, adjoining Bridleway ATW37 to the north of the proposed haul road) has not been adopted by the applicant and included in the application submission. They consider that this is a missed opportunity.

362. **The Campaign to Protect Rural England (CPRE) Worcestershire** raise no objections to the proposal, commenting that they regret but accept the need for sand and gravel to be extracted and hope that the MPA impose conditions to minimise the

possible disruption to local residents from traffic or machinery noise. They comment that they would welcome the use of barges to transport mineral by river rather than the proposed HGVs by road, where feasible.

363. Restoration should be to agriculture or wetland and permission should be given in such a way that a further application is needed in order to provide any kind of residential accommodation (including houseboats) or any sporting use involving the use of artificial power (such as motorboats) to preserve the openness and tranquillity of the countryside.

364. CPRE Worcestershire consider that should planning permission be granted it should be subject to the imposition of an appropriate archaeological condition.

365. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, the CPRE reiterate the above comments.

366. **Campaign to Protect Rural England (CPRE) Gloucestershire** object to the proposal stating that whilst they do not object to the principle of mineral extraction from this site, they consider planning permission should be withheld unless and until the issues raised below have been properly addressed.

367. CPRE Gloucestershire comment that the benefits of maximising restoration of the Grade 3a agricultural land to original agricultural quality is desirable but should be balanced against the downside of increased HGV movements. Importing 'inert' fill as a commercially attractive operation in itself would not, in CPRE Gloucestershire's view, be acceptable in this location.

368. CPRE Gloucestershire note that additional information has been provided by the applicant regarding the sourcing of inert fill. However, it does not indicate in any detail the nature and consistency of the material which is proposed to be imported. They consider that this is a critical element if restoration to agricultural land of BMV quality is to be achieved. On the basis of their experience, they remain unconvinced that restoration to such quality can be assured even though it may be aspired to.

369. CPRE Gloucestershire note and welcome Natural England's detailed comments in relation to soil handling and the need for amplification of what was set out in the original application. Whilst sound handling, restoration and aftercare of indigenous soils is critical to re-creating BMV agricultural land, verifying the sources and nature of imported inert fill is also a key factor in a high-quality restoration (hydrological and settlement factors, for example).

370. CPRE Gloucestershire doubt whether the relevant authorities have the resources available adequately to monitor incoming material and to ensure compliance with any agreed standard. It is for these reasons, and because importing fill would add significantly more HGV movements, that they maintain that alternative solutions to importing fill should be thoroughly assessed. CPRE Gloucestershire acknowledge that there may be tensions between minimising HGV movements and achieving restoration to original profiles, including the potential area of BMV agricultural land which is achievable.

371. Unless it is clear that the scale of restoration to BMV quality would in practice be achievable, it would be preferable to evaluate the merits of restoring a smaller area to

such quality, using materials generated from the site, and which might have flood storage benefits. It is important that the high-grade soils are not wasted.

372. With reference to soil handling and restoration scheme submitted as part of the further information request submission, CPRE Gloucestershire comment that they do not have the resources available to verify whether the response by the applicant fully satisfies the points raised by Natural England, and strongly encourage the MPA to consult Natural England on these matters.

373. CPRE Gloucestershire note that the site is not allocated for mineral extraction in the Gloucestershire Minerals Local Plan or the Worcestershire Minerals Local Plan.

374. They note that Ripple Parish Council have made comprehensive comments on the application, and CPRE Gloucestershire considers that they have made a number of important points that require careful consideration. This include exploring the feasibility of using an existing processing plant at Ryall House Farm with the excavated mineral transported by barge from the site, thus eliminating the construction of a new plant on BMV agricultural land (Grades 2 and 3a).

375. **Historic England** raise concerns regarding the application on heritage grounds. They consider that the issues and safeguards outlined in their comments below need to be addressed in order for the application to meet the requirements of paragraphs 199, 200 and 202 of the NPPF.

376. They consider that the proposal would result in harm to the significance of the Scheduled Monument of 'Towbury Hill Camp' through the removal of a part of its landscape setting. In view of this, Historic England consider that the level of harm would be at the higher end of less than substantial harm. Historic England consider that the level of harm could be mitigated through appropriate restoration to pre-extraction levels and in a manner sympathetic with current and historic land conditions.

377. The MPA should be satisfied that any harm identified is clearly and convincingly justified and should weigh the harm against the public benefits associated with the proposal. If the MPA is minded to approve the application, Historic England recommend that a formal definition for the lifespan of the quarry is sought to avoid the potential for a long-term or permanent impact to the setting of the scheduled hillfort. Historic England advise that a robust and detailed Heritage Mitigation Strategy should be devised and conditioned.

378. Historic England state that the MPA in determining this application should bear in mind the statutory duty of Section 66 (1) and 72 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 (as amended) to have special regard to the desirability of preserving listed buildings or their setting or any features of special architectural or historic interest which they possess, and to pay special attention to the desirability of preserving or enhancing the character or appearance of conservation areas, respectively.

379. Historic England state that the submitted Archaeological Evaluation Report confirms the presence of extensive Iron Age settlement activity within the application site, albeit truncated on the river terrace through modern agricultural practices. The confirmed presence of a trackway (likely contemporary), demonstrating connectivity

between the river, floodplain, the settlement foci, and the Scheduled Monument of Towbury Hill Camp advocates an important relationship between the sites, influenced by their immediate setting within the river valley. The application area, therefore, forms an important component within a significant Iron Age landscape. It makes a positive contribution to the significance of Towbury Hill Camp by providing an understanding of the function of the Scheduled Monument within the landscape. The site has potential to contribute to the understanding and knowledge of changes in social and economic structure in the Iron Age and into the Romano-British period.

380. Full evaluation of the floodplain area has not been undertaken at this stage and, therefore, the nature and significance of non-designated archaeological remains in this area cannot be fully understood. However, well preserved organic deposits dating from between the Early Neolithic and medieval period have been recovered from waterlogged areas elsewhere in the Severn Valley, including from the extraction area to the west. There exists the potential for remains of considerable importance to survive within the application site.

381. The proposals would result in the complete removal of non-designated archaeological remains within the application site that contribute to the understanding of the Scheduled Monument, and which form a part of its landscape. This would, Historic England's view, result in a high level of harm to the Scheduled Monument's significance (at the higher end of less than substantial harm). Non-designated archaeological remains surviving within the floodplain area may be of considerable importance in their own right.

382. Historic England consider that the proposal would have an impact on the setting of the Scheduled Monument through the disruption of the relationship between the monument and the land it may have managed or administrated. Although a temporary impact, the lifespan of the quarry may still be a considerable period of time.

383. Historic England also state that there is a demonstrably high potential for prehistoric and later archaeological remains to survive within waterlogged deposits. These may be of considerable importance in their own right.

384. Historic England note that the updated Proposed Restoration Plan appears to be missing annotations regarding the nature of the proposed restoration in some areas. In view of this, the MPA should ensure they are satisfied with the clarity of the information provided.

385. In response to the Regulation 25 Submission (further information) relating to cumulative impacts, Historic England reiterate the above comments.

386. **Historic Buildings & Places (formerly The Ancient Monuments Society)** no comments received.

387. **The Council for British Archaeology (CBA)** states that in principle they support the recommendation of the applicant's Cultural Heritage Assessment that a specialist geophysical survey, borehole survey and geoarchaeological modelling of the area of extraction in the floodplain should be programmed as a first stage of the post-determination mitigation programme rather than as part of the pre-determination works. They have concerns that the survey objective would not be to identify the presence / absence / location of potential deposits, but simply to inform and focus

further mitigation stages. They are aware that mineral extraction can sometimes yield important archaeological remains. The CBA stress that their preference whenever possible for pre-determination investigations rather than post-determination mitigation, to safeguard any unanticipated remains at an early stage. However, they realise preference can be untenable where minerals extraction is a phased operation with progressive restoration over many years and related permissions.

388. The CBA have concerns that the Assessment, although competent and thorough, seems slightly dismissive with an aim of expressing minimal likely impacts on potential archaeology and the significance of the two key above-ground assets (Scheduled Monument of Towbury Hill Camp and the Listed Building of Puck Cottage). The Assessment does, however, point out that the claimed 'temporary' nature of mineral extraction still means long-term disruption, not just for the estimated 9 years on this phase / site. The CBA concur with this comment and request this be taken into consideration.

389. CBA wish to draw the MPA's attention to the statement within the Assessment that the restoration scheme would reinstate the original ground-levels. They consider it should be made clear where any imported material would come from, and what it might comprise. Even inert building waste could compromise undiscovered archaeological features.

390. The CBA requests confirmation of a robust pre-commencement or pre-phase (as relevant) planning condition to secure the geophysical survey and archaeological assessment and evaluation. This should be carried out to a pre-agreed (by the MPA) written specification, and the results reported for the public record; a watching brief to take place during the extraction phases, to a pre-agreed written scheme (by the MPA) to safeguard / identify any unexpected remains; and assurances as to what action / mitigation would be undertaken in the event that sites / items of archaeological interest were discovered, either by the geophysical survey or during extraction.

391. **County Archaeologist** has no objections to the proposal, subject to the imposition of conditions requiring a programme of archaeological work, including a Written Scheme of Investigation, and the provision made for the analysis, publication and dissemination of the results and archive deposition, and an interpretation strategy for cultural heritage and geodiversity.

392. The County Archaeologist states that the desk-based assessment, geophysical survey, geoarchaeological assessment and trial trench evaluation have established the nature and significance of the archaeology, as required by the NPPF. The County Archaeologist is satisfied that there is no reason to object to the application and that the loss of heritage assets can be mitigated through a programme of archaeological work.

393. The work to date has established that there is a significant archaeological resource within the development area, which would be lost as a result of the proposed mineral extraction. A mitigation strategy would be required to be agreed. Subject to this mitigation strategy, the County Archaeologist is content that the archaeology is not of such significance that it should be preserved. It is significant and must be fully recorded as the works progress, assessed and eventually published. The mitigation strategy proposed involves varying levels archaeological monitoring on different areas, from watching brief through to open area excavation. This strategy

would be incorporated into a written scheme of investigation(s) for the site, which would include scope for modifications as the site progresses.

394. The County Archaeologist considers that the MPA has sufficient information with which to determine the application in regard to the historic environment.

395. The County Archaeologist considers that the recommended conditions would deal with the issue of the environmental deposits that has been raised by the Historic England. They concur with Historic England that the archaeological assessment has not, as it claims, demonstrated that the environmental deposits are unlikely to be of high significance. However, given the depth and complexity of any such deposits the County Archaeologist considers that it is very challenging to attempt to evaluate the significance of those deposits at this stage, and this is best dealt with through a programme of fieldwork as the quarry is worked. The County Archaeologist agrees that a robust and detailed Heritage Mitigation Strategy must be devised to manage the risks that deposits of high potential could be found. The recommended conditions are essential to ensure that this work is undertaken.

396. The County Archaeologist welcomes the submitted additional information provided in regard to the setting of Towbury Hill Camp Scheduled Monument. The County Archaeologist concurs with Historic England that the proposed development would result in harm to the significance that the designated heritage asset derives from its setting. The level of harm should be mitigated through an appropriate scheme of restoration, and this be controlled by conditions to ensure that there is a clear restoration strategy and a date by which that would be achieved. The recommended archaeological conditions would also ensure that the direct impact to the undesignated archaeology within the site is mitigated through excavation and recording.

397. In response to CBA, the County Archaeologist conforms that the recommended programme of archaeological work, including a Written Scheme of Investigation condition would capture CBA's requests for a specialist geophysical survey, a watching brief to take place during the extraction phases, and what action / mitigation would be undertaken in the event that sites / items of archaeological interest were discovered. The County Archaeologist goes on to state that there would be significant impacts to below-ground archaeological deposits. The archaeology on the gravel terrace has been evaluated and there is a clear understanding of the nature and significance of the heritage assets here. They would need to be subject to a programme of excavation prior to their loss. The potential archaeology in the western part of the site is far more complicated to evaluate as it is deeply stratified and would likely be water-logged, making traditional trenching unworkable. The archaeology, including the palaeo-environmental remains, would need to be dealt with through a robust and complex mitigation strategy. The suggested conditions should allow this to happen throughout the lifetime of the extraction.

398. In response to the Regulation 25 Submission (further information) to cumulative impacts, the County Archaeologist confirmed that their above comments remained unchanged.

399. **Gloucestershire County Archaeologist** comments in response to the Regulation 25 Submission (further information) relating to cumulative impacts that

they have provided comments to Gloucestershire County Council in respect to the elements of the scheme in Gloucestershire, and this is provided below for information:

400. The Gloucestershire County Archaeologist has reviewed the ES addendum and concur with the conclusion that no amendments are required for the Bow Farm cultural heritage documentation (in relation to Gloucestershire) as a result of the submission. Their previous recommendation to Gloucestershire County Council for an archaeological condition (a programme of archaeological work, including a written scheme of investigation) remains unchanged. The Gloucestershire County Archaeologist advises that Gloucestershire County Council double check with Historic England as to whether they have concerns over the cumulative effects of the two applications in relation to the setting of Towbury Hillfort scheduled monument.

401. **District Archaeologist** has no objections to the proposal, subject to the imposition of conditions requiring programme of archaeological work, including a Written Scheme of Investigation and the provision made for the analysis, publication and dissemination of the results and archive deposition. They state they wish to defer to the County Archaeologist in relation to the scope of works.

402. The District Archaeologist considers that the desk-based assessment, geophysical survey, geoarchaeological investigation and trench evaluation have adequately assessed the archaeological potential of the proposed development area and considers that the application is in accordance with the NPPF. They also state that the archaeological potential of the site is high, therefore, impact upon non designated heritage assets should be mitigated by the above recommended conditions.

403. **Herefordshire and Worcestershire Earth Heritage Trust** comment that the application does not recognise the loss of geological heritage that the proposal would cause. The Severn River Terraces are a geological formation of internationally recognised importance. They provide a record of events in the Quaternary that are of significant scientific interest: the history of the evolution of the Severn River channel and the environmental history recorded in fossils.

404. The proposed development would not only destroy geological evidence, but it would also expose it, providing opportunities for scientific investigation, subject to the co-operation of the developer. Extraction would extensively expose and remove large volumes of the Worcester Sand and Gravel member (type of geological formation), both at the surface and where it underlies the alluvium.

405. In compensation for the loss of this, the Earth Heritage Trust request that during the extraction process, the operator should be required to cooperate with geologists requesting access to record the structure of exposed faces within the river terraces and extract samples for the purposes of research including removal and dating of rock samples from the exposed (and otherwise undisturbed) face.

406. The Earth Heritage Trust request vigilance during the extraction process, alerting all operatives to the possibility of fossil finds, and that they co-operate in investigating and recovering any finds, specifically that they look out for large mammal and other remains among the sand and gravel; and layers of darker material that might contain a variety of smaller plant and animal remains.

407. The Earth Heritage Trust state that they would welcome a geodiversity interpretation scheme, which could include an explanation of the rock that has been removed, what it consisted of, how, when and under what environmental conditions it was formed.

408. In response to the Regulation 25 Submission (further information) relating to cumulative effects, the Earth Heritage Trust comment that their comments remain unchanged.

409. **County Sustainability Officer** no comments received.

410. **Hereford and Worcester Fire and Rescue Service** have no objections to the proposal.

411. **Gloucestershire Fire and Rescue Service** have no objections to the proposal.

412. **West Mercia Police** state they have no concerns or objections with this application in relation to issues of crime and disorder.

413. **Gloucestershire Constabulary** comments that the applicant's submitted protocols in relation to crime and security offers hints in the right direction but lacks any level of detail. Having examined the issues affecting other quarries throughout Gloucestershire, which includes incidents of youth accessing quarries, theft and arson, they request further information and clarification is provided regarding boundary treatments and their specifications. They consider that CCTV should be used to monitor more areas of the site, including gates and site offices and requests further details. They state they would prefer that these matters were answered prior to the determination of the application.

414. **Gloucestershire Airport** comments that they have no initial concerns, as the site is located approximately 15 kilometres from their aerodrome.

415. **Exolum Pipeline System (Formerly CLH Pipeline System)** confirm that their previous objection comments are withdrawn following discussions with the applicant, and comment that their apparatus (pipeline) runs north to south through the haul road (between the proposed processing plant site and the A38) in Gloucestershire and would be impacted by the works. They request that the applicant contacts them to discuss the proposal and enter into a Works Consent (if required). They state that the Energy Act 2013 prohibits any development and most intrusive activities within the easement strip (6 metres) for the pipeline without consent from Exolum Pipeline System.

416. They note that landowners and third parties have a duty of care not to carry out any works that have the potential to damage Exolum Pipeline System's apparatus. This duty of care applies even if the works themselves are situated more than 3 metres from the pipeline.

417. **Defence Infrastructure Organisation (DIO) (Ministry of Defence Abandoned Pipelines)** comment that there is a redundant pipeline (former Government Oil and Pipeline System) within the application site, running north to south through the haul road in Gloucestershire. Should works be required in close proximity to the pipeline

they recommend that the applicant seek the advice of a specialist pipeline contractor by contacting the Pipeline Industries Guild.

418. They state the pipeline has been declared redundant by the Ministry of Defence and the necessary legal charges have been removed in accordance with the Land Powers (Defence) Act 1958 and subsequent legislation. If the landowner wishes to remove the pipeline from the land, they may do so at their own cost.

419. **Wales and West Utilities** have no objections to the proposal. They confirm that they have no apparatus within the application site, although it is noted that their apparatus is located in the highway to the south-east of the application site. Any excavations in the vicinity of their apparatus should be carried out in accordance with the document titled: 'HSE Guidance HS(G)47, Avoiding Danger from Underground Services'. Should diversion works be required, the applicant should contact Wales and West Utilities to discuss the proposals.

420. **Western Power Distribution** confirm that their apparatus is located within the application site (11kV overhead electricity lines); the use of mechanical excavators in the vicinity of their apparatus should be kept to a minimum. Any excavations in the vicinity of their apparatus should be carried out in accordance with the document titled: 'HSE Guidance HS(G)47, Avoiding Danger from Underground Services'. Where overhead lines cross the site, the applicant must comply with the requirements of 'HSE Guidance GS6, Avoidance of Danger from Overhead Electric Lines'. The applicant should contact Western Power Distribution should any diversions be required.

421. **Gigclear Ltd** confirm that their apparatus is in the vicinity of the application (within the public highway), and the applicant should contact them to discuss the proposal.

422. **Zayo Group UK Ltd** confirm that their apparatus is in the vicinity of the application within the public highway to the east of the application site. The applicant should contact Zayo Group should any diversions be required.

423. **Cadent Gas Ltd** raise no objections to this proposal from a planning perspective.

424. **Worcestershire Local Enterprise Partnership (WLEP)** no comments received.

425. **Gloucestershire Local Enterprise Partnership (GLEP)** no comments received.

426. **Health and Safety Executive (HSE)** comments that the proposed development does not lie within a consultation distance of a major hazard site or major accident hazard pipeline, therefore, HSE does not need to be consulted on this proposal.

Other Representations

427. The application and accompanying ES have been advertised on site, in the press, by neighbour notification, and via social media. To date, 444 letters of representation have been received, some of which are from the same respondents,

and include representations from 2 local residents' action groups, Puckrup Hall Hotel and Golf Club and Lawrence Robertson MP, 66 of which are letters of support, 2 of which are comments and 376 of which are objections. These letters of representation were made available to Members of the Planning and Regulatory Committee upon request. Their main comments are summarised below:

Comments

- If planning permission is granted requests that Phases 4, 5 and 6 are split into further phases (laterally), so that during the summer months (May to August) works take place further away from residential properties, and in turn, when the works closer to the residential properties needs to be carried out this can take place during the winter months. As they wish to enjoy their garden and outside space during the summer months.
- Requests contact details for the quarry manager should they have any questions or concerns.
- Does not consider the proposal would affect them in terms of noise but would prefer that the applicant only works Mondays to Fridays.

Letters of Support

- The applicant has served the Gloucestershire and Worcestershire area very well and would act in a responsible and environmentally aware manner.
- Would provide job opportunities in the area benefiting the community.
- The business is well established and has been successfully trading for over 90 years.
- The applicant has supported the local youth football association and a variety of restoration work within the village.
- Wishes to support local companies and reduce the carbon footprint.
- The applicant is a responsible operator who have a sympathetic approach and an excellent reputation amongst the surrounding villages.
- Minerals can only be worked where they are found.
- The proposal would have a minimal impact on the existing road network due to recent housing developments in the area.
- The proposal would alleviate the potential for flooding.
- The site is well located close to A roads and the wider highway network.
- 20 jobs would be created, which would increase footfall for local businesses.
- Gravel extraction is essential for ongoing development of housing, infrastructure, and the economy.
- The restored site as a wetland would increase job prospects within the leisure industry and boost the rural economy.
- NIMBYism (Not in My Back Yard) should not hinder planning applications for mineral extraction.
- Need to rely on other planning and environmental regulations to avoid negative impacts.
- The proposal meets the need for increased aggregate supply which is essential for the construction industry.
- Massive demand for minerals for new housing in the UK, and sand and gravel is a key element in providing new housing.
- Sand and gravel resources are time limited, sites then undergo permanent restoration, benefiting the local community.

- Any previous issues at the Frampton site have previously been resolved quickly and professionally by the Managing Director.
- Twynning could also benefit economically from the extra staff using the local amenities such as shops, pubs, cafes, restaurants etc.
- Mineral extraction is crucial to meeting the demands for new housing and such a significant reserve of mineral should not be overlooked.
- The restoration scheme would be beneficial for flood alleviation.
- Restoration would create wildlife habitat and support biodiversity.
- Advocates the importance of creating career opportunities within the minerals industry.
- Should be encouraging and supporting British businesses post Brexit and COVID-19.
- The proposal is vital for post covid business recovery and employment opportunities.
- The applicant has good environmental business credentials.
- The 10-year average of replenishment rate (new consents) for sand and gravel is currently running at 63%. This is unsustainable, considering the Government's programme for new housing building.
- Note the site would be progressively restored and only last 9 years in total.
- Questions if new housing is of national importance, then why does it take the planning system such a long time to process a planning application for a relatively small and short life mineral operation.
- Considers that it would make more sense for one local authority to hand the work over to the other local authority rather than duplicate the whole process, speeding up the determination period.

Letters of Objection

Traffic, highway safety and public rights of way

- The access to the site along Bow Lane is difficult enough at present and widening it to accept 2 vehicles, one in and one out, with the associated visibility splays would only serve to create an accident black spot.
- Traffic along this road often travels at 60 - 70 mph and unless the visibility splays have a filter in lane the congestion would be significant.
- The A38 is not built for heavy traffic of this nature and proposed frequency.
- The existing road surface is unsuitable and would deteriorate further and result in potholes.
- The proposal does not accord with Policy MLP 39: 'Transport' of the adopted Worcestershire Minerals Local Plan, to minimise road-based transport and employ a non-road solution.
- Ashleworth is not a suitable location for this sort of development and does not warrant a second phase of development.
- The proposal would increase traffic.
- There are no pavements, lanes are narrow and there are no speed limits on lanes in the vicinity of the site.
- A total approximate of 41,500 HGV movements per year over 9 years is too many to contemplate on currently subsiding roads and heavily used roads.
- Clarification is sought regarding weight restriction on bridges in the area, specifically Mythe Bridge.

- Clarification is sought regarding the number of HGVs and the proposed route of HGVs to and from the site.
- Concern that the proposal would result in ten additional HGVs per hour.
- Concern raised that the number of HGV movements and overloaded HGVs would become like the CEMEX dust bowl at the Ripple Lake site and that it seems that once planning permission had been granted, the applicants can get away with anything as no one is around to police operations and the respondent considers that residents' voices are not heard.
- The positioning of the proposed access road onto the A38 would cause traffic jams and this would be exacerbated by diverted traffic whenever there is an accident on the M5 Motorway.
- The staggered junction between Page's Lane and the site entrance has not been modelled for possible grid lock situations.
- The applicant states most footpaths and bridleways have high visual sensitivity and would be subject to high / substantial adverse effects, with no mitigation proposed.
- Consideration needs to be given to common rights and the safety of horses and riders using the bridleway.
- The use of a ramp to avoid diverting a public right of way is not viable.
- Puckrup Lane is unsuitable for HGVs.
- Brockeridge Road is already very busy.
- Questions whether alternative methods of transport have been explored.
- The siting of the access and the staggered junction at Page's Lane would be a hazard.
- Traffic pollution would be unacceptable for residents and hotel guests.
- Concern that no details have been submitted about the number of HGV movements and how inert material would be transported to and around the site.
- Concern that HGVs would be routed through the villages of Ripple and Uckinghall and along Bow Lane. The lanes could not accommodate the weight and width of the HGVs and would result in a very real hazard to all residents who both, walk, ride, exercise their dogs and use the lanes.
- No entry arrangement details have been submitted.
- Gloucestershire County Council were recommending refusal of the planning application due to major concerns about the applicant's detail relating to HGVs and the time required to get up to speed to cross oncoming traffic turning from the holding lane.
- Concern locally about vehicles exiting and entering the site.
- Residents undertook a road traffic survey and for a 3-hour period and noted that there was an average of 150 traffic movements per hour.
- A route through local villages would cause structural damage potentially caused from 112 heavy inert landfill lorries passing close to listed buildings and residential properties.
- The applicant owns land adjacent to the river, therefore, material could be taken out of the site by barge for processing.
- A vehicle washing facility is needed to avoid mud, sand, and cement debris on the A38.
- Due to the site flooding, mud is likely to be deposited on the A38 in significant quantities, which would be a hazard for motorists and cyclists.
- Questions who would be responsible for cleaning the drains along the A38, which would become blocked during heavy rainfall due to the deposit of mud on the road.

- States that CEMEX are applying for planning permission for further sand and gravel excavations north of Ripple and recommends that a condition should be attached to both permissions to use the existing wharf and that processing equipment should be located on the shared north part of the site.
- Question whether planning permission has been granted by the Secretary of State for the installation of the road and subsequent traffic.

Noise and Vibration

- Noise, dust and general disturbance to life in the villages of Twynning, Ripple and Uckinghall and surrounding area would make it more industrial than rural, and this is a major concern to all who live in the area.
- Residents of Bow Lane have experienced Queenhill Bridge (Ripple) sand and gravel quarry and associated noise from the equipment and reversing beepers.
- No independent survey has been submitted in terms of noise, dust or vibration.
- The distances from sensitive receptors to the site quoted in the Noise Impact Assessment are incorrect, Puck Cottage is located 50 metres from the site and not 70 metres as the Noise Impact Assessment states.
- Concern about the combined noise impact of quarries if CEMEX gain permission to extract sand and gravel at Silvermead on Bow Lane, which would result in Bow Lane being blighted by quarry sites.
- The proximity to the sand and gravel extraction would mean the closest local residents would be continually exposed to noise from machinery, except for a small window on Sundays, which would be intolerable.
- Comparing noise data from the Page's Lane application with the data submitted in support of the current application, the assessment levels of the machinery and site conditions are not acceptable.
- The noise of the proposal coupled with the noise from the motorway would make life unbearable. Noise is constant, disturbing, and mentally life changing.
- The submitted Noise Impact Assessment shows no details on how the results have been reached and give misleading noise values. The information included seems to demonstrate background noise levels exceed the noise levels of the plant in full operation at the same point, which is impossible. The data appears to make the local environment quieter than the pre-existing conditions and is data manipulation.
- The submitted Noise Impact Assessment should take account of the proximity of the golf course, in particular the area north of the concrete batching plant, washing and screening plant, which has not been included in the Noise Impact Assessment.
- No vibration analysis has been submitted to ascertain the level of damage to the Grade II Listed Puck Cottage.
- No assessment of the predicted vibration levels has been submitted.
- The predicted noise levels of the operating plant would be 68dBA which exceeds the 55 dBA limit and would be just below the working limit of 70dBA, which is not acceptable.
- Questions why background measured noise values cease at 14:30, but the operational hours exceed this time.
- The Noise Impact Assessment states noise levels would be similar to background noise +10dB(A). If this is based on average values, as it seems to be, then the legislated noise levels are likely to be exceeded.

- 5-metre-high noise attenuation bunds were permitted at Page's Lane and three-metre-high bunds are proposed for the application site. 3-metre-high bunds would not be high enough to be effective.
- A Noise Impact Assessment should be undertaken during the winter months when the trees in the area are bare.
- Reversing alarms are a particular noise nuisance with most households in the area affected by CEMEX operations.
- Dependant on the orientation of buildings and wind directions, noise impacts could be increased.
- The Noise Impact Assessment states that noise levels would be imperceptible, when properties located along Bow Lane are located approximately 6 metres from deep excavations.
- All properties along Bow Lane are vulnerable to vibrational impact and therefore need consideration. Properties as old as Puck Cottage have foundations that require protection via monitoring sensors.
- Bow Farm although not listed needs the same level of protection as Grade II Listed Puck Cottage, in terms of protecting foundations.
- In terms of cumulative values there is no way to determine whether the bunds and soil stripping can take place as a single operation. If it is as shown in the Phase 1 plans, then can the applicant demonstrate how this would be done on the entire site in less than 8 weeks? If it is not, then the noise values need to be amended to show temporary activities noise in addition to the normal operation of the site.
- An issue on the Page's Lane application regarding excavation of material under the bunds was absent in the application and therefore they recommend that on this basis noise and vibration data should be submitted before operations start without any attenuation in situ.
- The extraction equipment has a higher noise level than the bund creating machinery and should be a critical worst-case calculation and could form the closest proximity distance for the bunds to sensitive. This relates to Phases 7 and 8 and areas 4, 5, 6 and 7 on the plans. It also presumably relates to areas 8 and 9.
- The noise calculations do not take into account the worst-case scenario and do not comply with BS: 5228.

Dust

- Adverse dust impact upon residential amenity.
- No dust mitigation measures are proposed.
- No independent survey has been submitted in terms of noise, dust or vibration.
- Dampening down is not effective against dust and silica particles.
- Local businesses in the area would be affected by dust and noise pollution.
- Dust would affect crop production and business viability.
- The control of dust at other sites in the area is demonstrated not to be effective.
- Clouds of dust can be frequently seen above Ryall Quarry which can be seen from the Malvern Hills.
- 300,000 tonnes of fine sand processed at the site would result in high levels of airborne sand dust which would be distributed over surrounding residential and commercial businesses.
- A glasshouse located near the site would be covered in dust. Cleaning the glass roof costs in excess of £4,000. For every 5% of obscuration that the film of dust

creates, this causes crop production and its value to drop by the corresponding amount.

- Concern that the ventilation system of the glasshouse would take in dust filled air and coat the crop, which cannot be washed prior to consumption.
- Anything other than a prevailing north / north-west wind would be variable and it would take only one deposit of dust to damage a crop of raspberries.
- Soft fruit grown in glasshouses require sunlight and fresh air to yield a good crop and it would take only one deposit of dust to damage a crop of raspberries.
- No data on wind directions, strength and dispersal of dust have been submitted.
- Impact of wind direction and dust on residential properties.
- The Dust Management Plan references the residential properties in Bow Lane as principal dust receptors but does not reference them in terms of noise.
- The submitted details do not accurately identify the dangers of fine dust particles (dust less than 10 microns) and have scoped out any potential for mitigation.
- Incorrectly references Hartford Quarry within the application documents, which is misleading and a cause for concern.
- The further information submitted by the applicant still leaves many questions unanswered specifically relating to the impact of noise.
- The applicant states that properties would be affected by dust for 3.5% of the time due to the virtue of the prevailing wind. Wind is not constant.
- The proposal shows bunds located along the perimeter of the extraction area as a particle deterrent, but it has been proven that when the wind direction is south-westerly the bunds would act as a lift and propel the particles even further.
- Dampening the ground is only effective if the particle size is the same as the size of the droplets of water, otherwise the force of the water would take the particle into the air.
- The proposed dampening system would need to be permanently operational and checked to be effective.
- Adverse dust emissions and contamination of surrounding land from the cement batching plant.

Residential Amenity

- Adverse impact upon residential amenity.
- Located too close to local residents.
- Increased flood risk would increase the use of the 24-hour pump which would result in an increase in noise levels and adversely impact on residential amenity.
- Doors and windows would need to be closed during the summer months.
- Concern about residential properties with shallow foundations being affected.
- No assessment has been included on the impact of the development on residential properties located along Bow Lane, except for Puck Cottage which is listed.
- Planning regulations stipulate separation distances and buffer zones to consider the impact on occupied residential dwellings.
- Understand the County Council are considering removing the current 200 metre exclusion zone. This means the persons working on one side of the fence have full knowledge of health and safety issues, the machinery they use is installed with clean air systems, their health is monitored. Yet the child who lives on the other side of the fence would face a future with a debilitating disease or even worse, death.
- Considers the application should be refused because every homeowner has the right to enjoy their property without threat of disturbance from dust and noise.

- Adverse impact on residential amenity due to reversing beepers.
- The proposed operational hours would be intolerable.
- Question if the operational phasing of the development takes into account the seasons and during the summer months works take place away from residential areas and in the winter months works take place close to residential properties, when doors and windows are more likely to be closed.
- A fair and independent survey, not a company under the instruction of the applicant should have been undertaken to assess the proposal in terms of pollution levels, heavy plant vibration and traffic. The data submitted with the application is selective.
- Operational hours should be limited to weekdays only.
- Mitigation standoff distances are too short.
- No mitigation measures are included as part of the application.
- Concern about light pollution on residential amenity.

Adverse Health Impacts

- Sand and gravel have silica particles which once airborne can result in lung cancer, silicosis, bronchitis, Chronic Obstructive Pulmonary Disease (COPD) and other respiratory illnesses.
- Silicosis is a slow and painful killer.
- Matt Weston MP introduced private members bill (Quarries Planning Bill) in 2021 which suggests sites nearer than 1,500 metres to residential properties have silica risk.
- A report produced by Band CE Holdings titled 'Silica -The Next Asbestos', produced in March 2020 concludes silica has the same health burden as asbestos.
- Just because the HSE, Environment Agency and other government agencies have failed to research and acknowledge the lethal effects of silica should not give the County Council the green light to ignore proven facts.
- This worldwide research has confirmed that living alongside an aggregate site is in fact highly dangerous and in many cases lethal to residents who have continually been exposed to silica particles.
- The equipment for testing onsite which is used by the HSE, by their own admission, is not calibrated to test for the smallest most incredibly dangerous particles of silica dust. The UK's permitted particle size compared to other countries is in some cases is up to 4 times higher.
- Adverse impact from Particulate Matter PM2.5 and PM10 sized particles, which Who Health Organisation states is responsible for 4.2 million death globally.
- The Corby Court case of 2009 won by the Plaintiffs and upheld on appeal confirmed that dust particles of PM10 created during a restoration project, contrary to Government environmental figures of 1-kilometre airborne movement had travelled in excess of 3 kilometres resulting in catastrophic cases of babies being born with anatomical defects. PM2.5 particles would have travelled 10's of kilometres. Ripple village is 0.5 kilometres from the first phase of this site with a predominant south westerly wind bringing dust particles directly to the village.
- Dust emissions would adversely impact human health.
- Already had deaths in Ripple village since the granting of planning permission for Ripple Quarry and there are current cases of residents who are battling COPD.
- No evidence to support that brief and casual exposure to particles does not put residents' health at serious risk, there are no agreed standards or guidelines for the nuisance and health implications of mineral dust in the UK.

- Worldwide research confirms that silica is highly dangerous and results in serious illness and deaths. Airborne silica stays in the body for life.
- Once silica is airborne a wind speed of just 3.1 miles per hour carries the silica particles approximately 0.5 miles and with wind speeds of 12.2 miles per hour the silica particles travel approximately 2.3 miles per hour.
- Local schools would be exposed to health problems arising from air pollution. Long-term impact on the health of school children.
- Ripple and Uckinghall have a dominant south-westerly prevailing wind, putting residents firmly in the path of airborne silica dust particles.
- At present there is no consensus about living in proximity to aggregate quarries and the possibility of exposure to airborne Respirable Crystalline Silica.
- The health impacts on sensitive receptors have been understated.
- Scientific papers relate dust and particulate pollution with the spread of COVID-19.
- Gas emissions from the proposal would damage the local water environment.
- The applicant has not given any information on particle size and research has shown that size is not relevant once the ground has been disturbed.

Visual Impact and Landscape Character

- No height specifications of the concrete batching plant have been submitted.
- Adverse impact on designated open countryside and the rural landscape.
- A haul road crossing an ancient bridleway and Common Land in itself would be an eyesore without taking into account the impact of the HGV movements.

Historic Environment

- Lack of information submitted about heritage assets.
- The site is next to a Conservation Area.
- Attention is drawn to The Listed Buildings and Conservation Areas Act 1990 regarding acts causing or likely to cause damage to listed buildings.
- Trial pits were undertaken, but no results or findings have been issued which is not in accordance with the NPPF or Policy SWDP 6: 'Historic Environment' of the adopted South Worcestershire Development Plan.
- The Archaeology and Geophysical Reports submitted are incomplete.
- Local knowledge suggests that ownership of the old Roman road is in doubt and the applicant is intending to use the land without legal title.
- No Heritage Research Report was submitted.
- The Iron Age Fort has shaped the surrounding landscape.
- The Archaeological Desk Based Assessment concludes that the quarrying would have a Major Adverse Impact on the landscape around Bow Lane and the Hillfort and that even if the landscape is effectively reinstated it would still have a moderate impact.
- The Scheduled Monument should be protected.
- Ripple and the surrounds are historic, a Conservation Area steeped in local history, particularly the area between Ripple and Upton. The area was prominent in Roman times, and important during the Wars of the Roses, and the English Civil War. The village is a Conservation Area, and the encroachment of the gravel extraction would significantly change the nature of the area.
- The historic heritage and age of some residential properties has not been taken into consideration within the application.

Water Environment and flooding

- Flooding would be likely to be exacerbated due to the proposed year-round extraction, particularly on Bow Lane, which would prevent local residents accessing their properties.
- The duration and extent of the extraction process and confirmation that the sand and gravel would be worked wet, indicates considerable amounts of water are going to be moved into settlement lakes and returned to the River Severn. The proposal can only increase the level of pollution in the river and have a dramatic effect on the aquifer and underlying water sources.
- If floodwater is unable to escape along its normal course it would have to disperse in other areas and could, potentially, cause problems for properties further upstream in Ripple.
- The submitted Hydrological Assessment is incomplete.
- Increased volume of water entering the River Severn which would add to the potential of flood risk in Tewkesbury.
- Adverse impact upon Ripple Brook, Mythe Brook, River Severn and Ripple Lakes which are within the site area.
- Concern relating to leaching and the impact on the surrounding area and the environment.
- The combination of leaching and the site being within a flood zone exacerbated by part of the proposed extraction area frequently flooding.
- The road that crosses Cowfield Common is frequently flooded sometimes for months at a time.
- The drains on Bow Lane would not be able to cope with the increased surface water run-off.
- Question if flooding would delay the 9-year programme for the site.
- Constant use of water for dampening, tyre and vehicle washing and for the ponds would be likely to affect the water table in the area and would have a negative effect on well water and borehole supplies.
- Use of the 24-hour pump during periods of flooding adversely impacts on residential amenity in terms of noise.
- The Environment Agency do not appear to agree that there is no increased flood or pollution risk at the site.
- Question whether the loss of the flood area would be compensated by soil stripping to a comparable depth in mitigation.
- Question whether the Lead Local Flood Authority concurs with the submitted information relating to increased flood risk at the site.
- States that no permeability data has been derived for the aquifer and a best-case value has been used. Questions the implications of using the wrong value.
- Question whether the mixing of site soil and the onsite inert infill material would affect permeability and potentially increase flood risk at the site.
- Question the topography of the site and whether it would impact on the flow of water through and around the site. The respondent notes that the ditches seem to terminate with no obvious flow paths. No gradients or sizing information has been submitted.
- All the ground water level hydrographic data starts in 2010, what would be the predicted effect with a 2007 type scenario, or worse.
- Question whether the Environment Agency are convinced that the elimination of the aquifer by impervious infill post restoration would not give flooding problems to the east of the site. Question whether a revised Environment Agency fluvial flood risk map could be drawn showing the effect of the proposal and in particular the post restoration conditions for such a scenario.

- States that the proposed silt pond no.2 and Phase 9 have been flooded for weeks at a time. Higher ground Phases 1 to 7 have not been flooded.
- Insufficient detail has been submitted about the effect of pumping silt into the River Severn, the effect on the floodplain and the potential for pollution to the river.
- The National Coal Board calculation methodology uses moderate to steep topography whereas the site is a flat floodplain.
- Question whether the applicant would be responsible in perpetuity for the maintenance of the ditches.
- Groundwater and surface water are often on the field that the applicant intends to use as a crossing point.
- The bridge would span an area that regularly floods and which in June 2019 was flooded for months.
- Comments that the chief executive of the Environment Agency has predicted severe water shortages for the UK in 25 years. Therefore, sand and gravel pits should be used as reservoirs.
- Concern about the impact on the River Severn and the surrounding floodplain.
- Gas emissions from the proposal would damage the local water environment.
- The proposal is within Flood Zone 3 and located where the River Severn is known to inundate the area on a regular basis.
- Drains within the vicinity of the site would not be able to cope with a potential increased run-off.
- Existing flooding issues deposits mud and debris on the roads, which the Council have to clean up.
- Bow Lane is already subject severe flooding in the winter and surface flooding through the year.
- The proposal would exacerbate flooding issues and put residential properties located along Bow Lane at risk.
- Concern that a high risk of contamination would leech into lakes, nature reserves and the River Severn which would contravene Section 23 of the Land Drainage Act 1991.
- Climate change adding to the likelihood of increased rainfall.
- Calculations regarding rainwater recharge, hydraulic gradients, groundwater depths and river flow rates use average values which does not reflect recent climatic changes and would, therefore, underestimate the potential effects of the proposal.
- Climate change will ensure that flooding in this area will only get worse and, especially considering the long duration of this project, flood protection must take this into account and not simply be based on historical data.
- No information has been provided as to whether the proposed extraction is wet or dry. Should the proposal be for wet extraction then this would exacerbate potential flood risk.
- Questions the use of inert materials and impact on the drainage systems.
- Considers that inert materials are presented by the applicant using a self-certificated system and questions whether this would be open to abuse unless there was some form of regulatory oversight in place to protect the water supply to the Mythe Water Treatment Works.

Biodiversity

- Adverse impact on wildlife and nature reserves.
- The golf course adjacent to the site contains many wildflowers including orchids.

- Adverse impact on ground nesting birds such as the skylark.
- The proposal would create a sanitised area devoid of wildlife.
- Largescale destruction of natural habitat.
- Loss of protected species.
- Assurances sought that wildlife currently present on the site would not be inconvenienced by the noise, dust, artificial light and vehicle movements associated with the proposal.
- Wildlife including deer, badgers, adders, hedgehogs, buzzards, tawny owls, voles, bats, dormice, great crested newts, adders and toads would be affected and disappear.
- The only bat roosting locations investigated within the current Ecological Report are only along the A38 and the entrance to the site.
- The proposal would have disastrous consequences on the area's flora, fauna and life within the River Severn.
- Destroying countryside close to Ripple Nature Reserve.
- The proposed removal of the veteran tree for the sake of additional tonnage would be contrary to Policy MLP 31: 'Biodiversity' of the adopted Worcestershire Minerals Local Plan, which requires the protection of ancient woodland and ancient or veteran trees from mining activities.
- Cynical and disingenuous statements within the ecology reports.
- No mitigation for the damage that would be caused to the landscape, wildlife, plants, trees and the river.
- Hydrocarbon contamination leeching into Ripple Lakes, Ripple Brook and the River Severn.
- The County Council have a duty to protect the environment as referenced by Section 40 of the Natural Environment and Rural Communities (NERC) Act.

Agricultural land

- Worcestershire County Council as custodians of the land need to safeguard the environment and prime quality agricultural land.
- Loss of agricultural land at a time when it is most needed by the country, which would not be replaced by an equivalent grade.

Adverse Impact on Tourism

- The proposed new road would run alongside the length of the Puckrup Hall Hotel and Golf Course and cause serious disturbance to the enjoyment of the facility.
- Many visitors come from all over the world to enjoy the scenery and historical setting and the proposal would have a detrimental impact on tourism.

Common Land

- States that the application site is located on Common Land and that consent should be sought from the Secretary of State for Environment in England or the Welsh Government (section 38 of the Commons Act 2006) in addition to any planning.

Cumulative impacts

- Adverse cumulative noise and traffic impacts from the simultaneous working of Ripple East Quarry and Bow Farm Quarry upon the villages of Uckinghall and Ripple.

Alternatives

- Consider that there are many other site locations to select from that are not close to villages.
- An alternative phasing method for when mineral extraction draws closer to residential properties on Bow Lane.
- Suggest alternative land adjacent to the M50 Motorway for the processing plant and cement batching plant and access.

Need

- A processing plant is located a couple of miles upstream from the site at Ryall House Farm and there is little justification for a second processing plant in such proximity.
- In June 2015 the Mineral Products Association published a policy briefing on 'The Need to Restore Mineral Sites with Inert Waste'. They noted the restoration of many sand and gravel sites were reliant on the importation and use of inert materials which brought with it several restrictions making the use of inert material more challenging.
- Questions the viability of the proposal if the removal of veteran trees would make it unviable.
- Shortage of inert waste recognised by aggregate companies and the government, resulted in waste that was originally classified as hazardous being downgraded to inert waste and used for landfill. Question whether this would be the case at Bow Farm.
- Approval of the application would set a precedent.
- Doubt has been expressed about the availability of suitable material and concerned that this would lead to delays in completion of the restoration phase of each operation.
- Question whether a potential shortfall in inert waste would impact on the programme of works being extended whilst pits stay open waiting for suitable landfill waste to be sourced.
- Clarity sought on the ownership of the land and whether there are historical records referring to the use of the land as Common Land, Manorial Waste, Church Glebe Land and Grazing Rights (CL46).
- Extensive sand and gravel extraction undertaken by CEMEX at the Ryall House Farm is a stark reminder of the lunar landscape created through quarrying and delayed reinstatement of the land.
- The area is designated open countryside and, therefore, protected from housing development but not from being quarried.
- Stripping the topsoil and then reinstating with inert waste material would result in infertile land and the loss of agricultural land.
- Not a prudent use of resources.
- The cumulative impact of the excavations, the phasing of the proposal and the processing and the use of the batching plant would significantly increase the volume of HGV journeys to and from the site with adverse effects greatly outweighing the benefits.
- The economic impact on local businesses and leisure facilities have not been assessed.
- Puckrup Hotel would be economically affected and would impact on employment opportunities in the area.
- Existing sites should be fully exploited before commencing extraction at a new site.

Prematurity

- The emerging Worcestershire Minerals Local Plan is not yet adopted and the emerging Worcestershire Mineral Site Allocations DPD has a long way to go before being examined and adopted, therefore, until these emerging documents are adopted, considers there is no basis to determine the application, as the application is premature.

Planning Policy

- The location is not a preferred site as it had not been identified as such in the adopted Worcestershire Mineral Local Plan and, therefore, their needs to be an overwhelming need for the mineral resources. Currently 7 years supply has been identified and, therefore, the planning application should not be considered at this stage.
- The Minerals Local Plan states that inert materials should be recycled for secondary use in preference to new extraction and questions what would be going into the ground.
- It is only identified as an area of interest in the Mineral Local Plan and several other potential sites are within the same area of interest as Bow Farm.
- The proposal would not be in accordance with the NPPF or Policy DM02: 'Cumulative Impact' and DM03: 'Transport' of the Minerals Local Plan for Gloucestershire.
- Does not accord with the Twynings Neighbourhood Development Plan.
- The proposal is not in accordance with the Waste Hierarchy.
- The proposed development is contrary to Policy SD6: 'Landscape' of the adopted Gloucester, Cheltenham and Tewkesbury Joint Core Strategy.
- The proposal does not accord with Policies MLP 26: 'Efficient Use of Resources', Policy MLP 28: 'Amenity', Policy MLP 30: 'Access and Recreation', Policy MLP 31: 'Biodiversity', Policy MLP 37: 'Water Quality and Quantity', and Policy MLP 39: 'Transport' of the adopted Worcestershire Minerals Local Plan.
- Questions why an area outside a designated mineral extraction zone is being actively considered.
- Prior to the new Worcestershire Minerals Local Plan, mineral extraction could not take place within 200 metres of residential properties.

Public Consultation

- No site related documentation has been issued to date for public consultation.
- Difference between documents submitted to Worcestershire County Council and Gloucestershire County Council.
- Concern that no mention has been made of a cement batching plant at the applicant's presentation for the original scoping application held at Ripple Parish Hall and no opportunity for the public to question or comment on this aspect. This is a serious omission given the change from an agricultural landscape into an industrial one.
- Insufficient public consultation.

Other Matters

- Question why the County Council would consider it justifiable to have 2 mineral processing plants (the proposed processing plant at Bow Farm and the existing Ryall House Farm Processing plant) in such close proximity to each other.
- Question the motives of the applicant.
- Devaluation of property prices.

- Questions if the applicant is seeking the permanent retention of the cement batching plant on the site.
- The applicant benefits financially.
- Adverse impact on human rights (Article 8).
- To approve them would be an affront to our human rights and the right of every citizen to live a life free from toxic airborne particles.
- Questions what precautions would be put in place to prevent fly tipping?
- Question why the proposed amount for extraction and timescales have changed.
- It is not clear what the use of the land between the extraction and processing areas would be used for.
- Question whether a site generator would be used on the site.
- The lack of definition of what is an ancillary development is insufficiently vague and could leave to more additional buildings being erected.
- CEMEX, despite its planning commitments, have not removed the River Severn wharf even though this was stipulated in their planning permission and there is every reason to think that the applicant's proposed concrete batching plant and its other ancillary developments would be kept in place for further phases of sand and gravel extraction.
- Given that flooding of the River Severn occurs annually, works would have to cease for several weeks each winter. This makes it hard to believe that the declared target of 9 years for completion of the extraction and the restoration of the site would be achieved.
- Pipelines and fibre optics are located underneath the A38, the relevant companies have not been consulted and contravenes the Energy Act 2013.
- No mention has been made of the Exolum pipeline that crosses land where the applicant intends to construct a road.
- No information on how the oil pipeline could be protected from potentially devastating environmental catastrophes.
- Questions why have local residents already been advised regarding the location of overhead powerlines which would need to be relocated.
- Questions why the land agents for the pipeline that crosses the site stated that mineral extraction at this site was always planned for.
- Questions why a valid objection from a pipeline company has been withdrawn.
- Questions why local residents were informed that Ripple East Quarry (an adjacent proposal by CEMEX) were told it was financially unviable.
- Suggest that local residents consider the planning decision has already been made and the process is simply a waste of everyone's time.
- The applicant has commissioned an ES, which seeks to minimise the risks from noise and silica exposure, but the ES is not impartial as paid for by the applicant.
- Adverse impact on climate change due to carbon dioxide emissions released from HGVs travelling to and from the site.

Lawrence Robertson MP (objection)

- No accurate data on dust particle size and no assessment of air quality, health hazards and nuisance to residential properties, as well as the local environment and wildlife.
- Impact of the prevailing wind on dust and residential properties.
- Noise values are inaccurate and do not consider the cumulative impact of plant, HGV movements, machinery and reversing alarms.
- Insufficient information about the dimensions of the concrete batching plant have been submitted.

- Residential properties and commercial premises located on an elevated position would not be effectively screened by the proposed bunding and hedgerows.
- The site is too close to local businesses who provide a benefit to the local community, tourism and the economy. The proposal is not in accordance with planning policy relating to tourism.
- The number of jobs that could be lost are not equalled by the number of jobs that would be created and would impact the local economy.
- The A road between Gloucester and Worcester is a very busy road (50mph) and is also used as a main diversion route when traffic is taken off the M5 Motorway.
- Slow moving HGVs and other vehicles leaving and exiting the site onto the A38 would be a traffic hazard and safety risk.
- The access is opposite the turn for Twyning village, and the risk of accidents would be greatly increased and will increase pollution.
- HGVs exiting the site every 6 minutes for 11 hours each weekday and for 6 hours on Saturdays would increase the potential for accidents, there have been several fatalities in recent years. Would impact on the local network.
- The impact of any issues on the M5 and M50 Motorways on local roads is already apparent and the level of HGV movements would exacerbate the problem.
- The Mythe Bridge route is unsuitable for large vehicles due to weight restrictions and being single file traffic only. Congestion already occurs when the lights are red causing traffic to queue onto a main A-road.
- The site is not a preferred site as identified within the Minerals Local Plan.
- The proposal is located within the River Severn floodplain and would significantly increase the risk of flooding to Bow Lane and adjacent properties.
- The documents submitted have a number of errors and omissions.
- The site is close to a Grade II Listed fragile timber building.
- Conflicts with the NPPF relating to transport impacts.

Zinc Puckrup Hall Hotel and Golf Club (objection)

- Zinc Puckrup Hall Hotels Limited own the freehold interest in the land which is currently let to Puckrup Hall Hotel.
- Puckrup Hall Hotel and Golf Club is a source of employment in the area and an increase in noise, dust and vibration would affect its viability.
- Noise and dust emanating from the site would affect the quality of enjoyment of guests and not conducive to a relaxing break.
- Flood risk has not been sufficiently addressed within the planning application.
- The submitted ES or the Noise and Vibration Assessment does not consider the proximity of the hotel and golf course to the site.
- Inadequate information has been submitted and the application should be refused.
- Puckrup Hall Hotel and Golf Club is not recognised as a receptor within the Dust and Air Quality Assessment Report.
- The submitted Landscape and Visual Assessment appears to be a draft version.
- Both receptor points identified within the assessment appear to be at a low elevation within the topography of the site.
- Two viewpoints based on the position of footpaths is insufficient in the context of 140 acres.
- The applicant has not demonstrated that adverse impacts can be avoided with regard to noise, vibration, air quality, dust, light pollution and the visual effect on the open landscape.

- No effort in reducing HGV movements and considers that the impact on transport infrastructure have not been adequately addressed.
- The concrete batching towers would be seen from the hotel and golf course and would be out of context within a sensitive rural landscape.
- No prospective Bride or Groom would want a concrete batching plant in the wedding photos.
- The proposal is an industrial intrusion into the open countryside and would have an unacceptable impact on the setting of the Malvern Hills AONB National Landscape.
- Issues relating to biodiversity, ecology, arboriculture, and listed buildings are contrary to the Council's and Government's policies.
- Considers that should the proposal be approved; it would cause untold damage to the viability of the hotel and golf course.
- Noise impacts from temporary activities such as soil stripping, boundary bund creation suggest noise levels at Puckrup Lane (Puckrup Hall Hotel) would be between 35-43 dB for such temporary operations, while with screening bunds in place, extraction in Phases 1 and 2 would be noisier at this location (39-49 dB) and again so with Phases 3-9 at 38 – 42 dB. It seems perverse that the noisiest operations associated with mineral extraction, which are those involving the stripping of top and subsoils and creating boundary screens are likely to generate lower noise levels at Puckrup Hall Hotel than extraction operations taking place behind said boundary screens and at a depth below surrounding ground levels.

Ripple Extraction Action Community Team (REACT) Residents' Group (objection)

- The site is not included in the emerging Mineral Site Allocation DPD and, therefore, does not comply with policy.
- The application is premature and should not be considered until the government has approved the emerging Worcestershire Minerals Local Plan.
- The application site is not included in the Worcestershire Minerals Local Plan.
- Gloucestershire County Council 2018 Scoping Opinion did not reveal the site as an option, and they question how the current planning application has got to the stage of a planning application.
- Current operational sites should be exhausted first.
- Sites that have been approved should be worked first.
- Shortfall of inert waste material in the UK.
- Concerned about where the inert material would be sourced from, and notes that section 5.23 'Restoration using Import Fill' of the County of Hereford and Worcester Minerals Local Plan [now replaced by the Worcestershire Minerals Local Plan] states that it is a condition that the applicant needs to prove where the inert landfill would be sourced from before works can commence. This is currently unknown.
- The Environment Agency is working with DEFRA and has developed technology that utilises inert landfill materials and converts them into aggregate that can be used in the building industry. This will inevitably mean that inert materials will be even more hard to come by and of course this technology sits well within the Government's environmental policies. The Scottish Environment Protection Agency (SEPA) report states that 20% of aggregate is already produced this way.
- Understand that the Environment Agency would only undertake random checking of loads of inert waste, therefore, how do residents know what material would be infilled.
- Cannot see on the plans where inert material would be stored.

- Concerned about the dust that would be generated from inert material as it is transported around the site.
- Restored inert landfill cannot effectively be used as arable land due to the reduced yield potential. Losing arable land to aggregates is common.
- Considers that the applicant does not consider the impact of the proposal in terms of noise dust, pollution and traffic on residents.
- The proposal would substantially increase the risk of flooding to properties located on Bow Lane.
- Comments that since the flood defences were erected in Uckinghall it has been observed that once the water stops rising up the flood gate, water can still be seen torrenting over the agricultural flood bank at Saxon's Lode. This water is currently being absorbed by the sand and gravel, but this would be replaced by less permeable inert material, exacerbating flooding in the area.
- Concerned about the long-term maintenance of the proposed drainage features in the application site.
- No weight restrictions on the two disused railway bridges.
- The proposal would contravene Section 23 of the Land Drainage Act 1991 regarding prohibition on obstructions etc. in watercourses.
- Conflicting information has been provided by the applicant regarding the number and frequency of HGV movements and proposed tonnage that would be extracted from the site and transported per year.
- The frequency of HGV movements would amount to HGVs entering or leaving the site every five minutes for 5.5 working days and does not accord with the NPPF or Policy DM03: 'Transport' of the adopted Minerals Local Plan for Gloucestershire.
- The Air Quality Assessment states that the occurrence of fine dust particles of less than 10 microns would be negligible and that the mitigation risk has been scoped out. Clarification is sought on the provenance of the background concentrations provided by the applicant.
- When dust particles become airborne, they are a serious risk to health and are proven to cause cancer, silicosis, bronchitis, COPD and other respiratory diseases.
- Silica is one of the most hazardous airborne contaminants in the world, which are particle size PM2.5 easily becomes airborne.
- The US has limited dust exposure to 25 micrograms per 8-hour day, the British Government to 100 micrograms per 8-hour day. Recently publication regarding Wood Burning Stoves confirms that 27% of PM2.5 is caused by construction related activity.
- In 2009 a case went to court involving The Corby Group and the reclamation of the redundant iron and steel works land in Northampton. Large earthworks and spoil transport was involved. A cluster of children living within a 3-kilometre radius were born with anatomical defects. It was proved that the dust, in this case PM10, had been carried 3 kilometres on the wind rather than the 1 kilometre suggested in the 1995 Government Environmental Report. For PM2.5 particles the distance would have been 10s of kilometres. The judge found in favour of the claimants which was upheld on appeal.
- No further information has been submitted about how the inert material would be transported to and around the site. No assessment of dust created by HGVs moving around the site has been submitted.
- Concern that HGVs, which are heavy and wide, would be routed through the villages of Ripple and Uckinghall, which have narrow lanes with multiple users.

- Further clarity is sought about flood management and the effect of pollution on the River Severn if silt is pumped directly into it, which would exacerbate flooding further upstream.
- Concern that excavated inert material would be downgraded to make up the national shortfall.
- Consider that the submitted documents are misleading to the public, who are not technical experts.
- Concerned that as the phases progress the open pits in Phases 1 and 3 are not restored and infilled. As the phases progress the screening bund is dismantled which leaves the pits visually open to the properties on Bow Lane. Consider that this is not progressive restoration, particularly when pits 1 and 3 have not been restored by year 9. These unfilled pits are a great concern, as they would be under treat from fly tipping.
- If the screening bunds are dismantled then there would be no visual, noise and noise screen barrier.
- There is a gap in the bund for the retained field access, therefore, the south-westerly winds would blow dust into the nearby villages eradicating the protection the bund would offer. Also question what vehicles would use this access.
- Considers the proposal needs a carbon offset plan.
- Concerned that Exolum are objecting to the proposal and make it very clear that the Energy Act 2013 would be contravened by the development, therefore, the Planning Committee could not legally approve the planning application.
- If the pipeline was to be damaged there is a very real possibility to cause a catastrophic environmental disaster. Information taken from the National Fire Chiefs Council website states that ‘up to 2 million litres of oil could be released in a 30-minute period’. Even a small leak from the pipeline, which could go unnoticed could impact the aquifer and river.
- Current background levels of harmful 10-micron particles are already at over 30% of the permissible levels so again it is inconceivable that the levels would not be exceeded when mining starts.
- In response to the Regulation 25 Submission (further information) relating to cumulative impacts, REACT states that the language used by the consultants in the addendum is not reassuring, as conclusions are caveated, e.g., in relation dust, the addendum states *“the proposed workings can be operated in a manner ‘unlikely’ to cause significant adverse air quality or dust impacts on the vicinity”*.
- Given the addendum on cumulative impacts was undertaken by the applicant it seems very inappropriate, as they are not impartial, therefore, it should be disregarded by the MPA.
- The requirement for minerals has not been examined recently by councils making decisions on mineral sites. Matt Western MP stated in his parliament recorded Hansard 29 October 2019 that the amount of housing required is now at a vastly different level to that which was estimated 15 years ago. It says: the construction of housing has already been identified as overstated. The local 5-year housing supply figure identified 17,000 homes for construction in Warwick District, yet the Office of National Statistics forecasts a need for half that figure. There are many other parts of the country where that overstatement is reflected. That overstatement is a critical part of my argument.
- Comment that a recent article in the Guardian by George Monbiot undertook some in depth investigative journalism and revealed that during a rare prosecution in 2019, a court was told that a large illegal waste dump in a quarry close to Chew Valley Lake in Somerset might end up costing us as much as £9

billion in remediation, if the contaminants leach into the water supplying Bristol and other settlements. REACT question if this is a risk that the County Council is prepared to take.

- REACT consider that it is pure common sense that two open quarry sites, situated side by side would increase dust and air quality pollution, noise pollution, and associated health risks.

Residents Against Gravel Extraction (RAGE) Residents' Group (objection)

- Several mature trees are located in the midst of the site and have not been included within the Arboricultural Report.
- Insufficient information has been submitted about prevailing wind directions and sensitive receptors.
- Dust particles below 5 microns in size, equating to 75,000 tonnes, have the potential to migrate 1 kilometre from source, as stated in section 2.1 of the Amended Dust Management Plan.
- The submitted data is misleading and does not consider any sand being exposed or excavated.
- Current agricultural dust emissions have been extrapolated to signify that there would be no significant dust issues once quarrying begins.
- Fine dust can travel significant distances.
- The Amended Dust Management Plan states that the DEFRA information relates only to the soil airborne contamination when the site is being stripped. The residents' group dispute this without any reference data provided.
- The Amended Dust Management Plan refers to Hartford Quarry, which brings into question the reliability of the applicant's data and information.
- The Amended Dust Management Plan notes various angular directions in relation to the primary dust source, but no information is provided on prevailing wind directions. For example, the sensitive receptor at Church End Nurseries there would be an adverse wind / dust conditions in the range of 34% to 35%.
- Adverse dust impact upon Church End Nurseries, which would contaminate the soft fruit crop or block out sunlight by creating an obscuring dust layer on the glazed roof.
- The applicant has chosen not to submit any data on the distribution between sand and gravel and no particle size distribution or quantity of the fine sand / dust element has been submitted. There could be about 75,000 tonnes of material below 5 microns in size.
- Puck Cottage would be adversely affected by continual dust emissions exacerbated by the profile of the bund forcing dust laden airflow up and over in a westerly direction.
- Puck Cottage should have a larger standoff distance to limit adverse impacts further.
- The applicant has failed to present any scientific data analysis to demonstrate the structure of Puck Cottage would not be damaged by vibration.
- Dispute the findings of the noise and vibration surveys regarding the impact on Puck Cottage and questions who would be liable for damages should the structure of the cottage be damaged.
- The Amended Dust Management Plan contradicts information submitted in support of a previous planning application.
- Insufficient information has been submitted relating to wind speed, wind speed frequency and size distribution of windblown dust (or more accurately not presented), with small particle sizes being the most dangerous to human health.

- Mobile dust extraction equipment is mentioned in the Amended Dust Management Plan, but insufficient information about what the equipment does.
- The applicant has scoped out any reference within the Amended Dust Management Plan to fine dust particles and, therefore, does not offer any potential mitigation measures.
- Refers to Section 6 of the Amended Dust Management Plan and questions the procedure about complaints by a member of the public and whether a complaint would be sent to the Environmental Health Officer.
- The Amended Dust Management Plan is virtually worthless and deliberately sets out to ignore major sources of dust, occurrence of dust and what action would be taken or mitigation measures.
- The applicant has failed to show there is no health risk to nearby sensitive receptors from dust emissions from the site.
- The Amended Dust Management Plan references the residential properties in Bow Lane as principal dust receptors but does not reference them in terms of noise.
- The applicant has failed to show they can comply with noise emissions from the site and has not used BS: 5228 (British Standard: Noise Control on Construction and Open Sites) to analyse the noise generated by the proposed machinery but has instead used gross underestimates of 'synthetic' noise values. The applicant has also not used worst case scenarios for the combined effects of machinery close to sensitive receptors.
- Huge noise and dust implications for the village of Ripple and the Hilton Puckrup Hall Hotel.
- No information has been submitted to support the removal of the Crack Willow trees referred in the Amended Arboriculture Report and removal of the trees is for the commercial viability of the site.
- Key controls within the submitted Arboriculture Method Statement should be conditioned and monitored.
- Clarity is sought about the felling of any trees with Tree Preservation Orders referred to in Section 7.1 of the Amended Arboriculture Report.
- The height of any proposed buildings should be conditioned.
- The existing green perimeter screening is deciduous and, therefore, not viable mitigation during the winter months.
- A substantial amount of vegetation is on land outside the red line plan and not in the applicant's ownership and, therefore, the applicant has no control over whether the vegetation would be retained or removed.
- The vegetation / tree cross sections are misleading and do not relate to the features present on site.
- Consider that the earthworks and bunds would be detrimental to the landscape.
- Reference to Towbury Hill Camp in the ES should consider sight lines from the Scheduled Monument during the winter months.
- Confirmation sought regarding the traffic density analysis includes the impartation of infill material.
- Clarification sought on the proposed HGV routes and which entrances would be used during the different phases of the development.
- Clarification sought on how the infill material would be received and used.
- Submitted plans do not show the internal road layout of the site and whether infill material would use the Bow Lane entrance.

- The applicant has failed to demonstrate there is sufficient inert material available to support the timescales proposed for the development and where on site this material would be stored and how it would be distributed.
- Query if the figure of 1.4 million tonnes of inert material is correct.
- Question if the Soil Association or a similar organisation independently confirmed that the same level of high-grade agricultural land would be reinstated post restoration.
- The applicant has failed to confirm whether sand and gravel would be quarried underneath the screening bunds, which would result in there be no noise attenuation during this initial extraction, which has not been accounted for in the noise analysis.
- Question how the removal of ancient trees can be in the interest of public safety, when the public are not allowed on the site once operational.
- Considers the proposal fails the derogation tests for a protected species licence from Natural England.
- Question the need and relevance of the applicant's statement at paragraph 2.38 of the ES referring to the long-term viability and available mineral reserves at Bow Farm quarry.
- Overall employment levels would not increase due to one site closing as the application site becomes operational.
- The applicant's website shows that the company are diversifying into transport and building businesses.
- Clarity is sought about when the 10-year period of proposed aftercare of the interceptor ditch would start and who takes responsibility after that time and states that 10 years is not sufficient.
- Questions when the aftercare period would commence.
- Concern regarding how flood water would be managed on and off site.
- Recommends that a condition is imposed requiring material to be exported by river should planning permission be granted.
- Considers under drainage should be installed under the restored land from the outset.
- In times of flood, the workings would fill with ground water if not fully isolated from the surrounding aquifer.
- Loss of effective floodplain capacity after the site is restored.
- Consider that the applicant is waging a war of attrition by never fully supplying all the requested information in the hope that the County Councils would give up as there is still a major shortfall in the data supplied and recommend that the application should not be determined until all the information has been submitted.
- Note that Worcestershire County Council and Gloucestershire County Council have a duty to cooperate but advise that Gloucestershire County Council should refuse the application and that Worcestershire County Council could still proceed to determine the application, but that the applicant would be forced to take material out of the site by river.
- Notes that the applicant could build a wharf from the site and alleviate any adverse impacts on the Puckrup Hall Hotel and Church End Nurseries, environment, wildlife, public rights of way and bridleways, oil pipelines, and highway issues, by taking the material out by river for processing elsewhere.
- Concern about the impartiality of the information and reports that have been submitted to date.
- Considers that there are bat roosts across the site and not just as identified adjacent to the A38.

- Adverse impact upon ecology and biodiversity.
- Concern that the replacement of the sand and gravel aquifer with a non-porous inert landfill would be degradation.
- The applicant has not calculated the volume of wood felling proposed, which would require a license if it were above the 5 cubic metre thresholds.
- No mention of ground nesting birds in the application submission.
- Skylarks are present on site and questions how their nests would be legally protected.
- The applicant has failed to show the River Severn would not be ecologically damaged by pollution by silt.
- The applicant has failed to consider what would happen when the River Severn floods and inundates the site workings. These are up to 6 metres deep adjacent to the river and up to 8 metres deep elsewhere on site. The only practical way to pump out this water filled void, is to pump it into the river with all the associated silt.
- The proposed lakes would be under water during the routine flooding incidents and questions how this would impact on the viability of the quarry.
- Query who is responsible for the long-term care of the interceptor ditch, which is critical in perpetuity. No apparent aftercare has been identified.
- A condition should be imposed limiting the height of structures on the site.
- The applicant has failed to present a worst-case cumulative noise assessment.
- Data submitted by the applicant does not adequately address the issue of vibration.
- Considers that the proposal would have an adverse landscape character and visual impacts.
- Disputes the ES's findings in relation to adverse landscape character and visual impacts, particularly in relation to soil stripping and views from public rights of way.
- The visual sight lines submitted by the applicant do not reflect the actual sight lines on the site or from the nearest residential properties.
- The concrete batching towers are the bulkiest and most prominent piece of equipment located closest to the nearby sensitive receptors.
- The application fails to show the location of several visually detrimental structures which also contain hazardous materials.
- The applicant notes the use of various facilities such as oil interceptors, onsite fuel storage facilities, a chemical storage shed, a septic tank but none of these are shown anywhere on the submitted plans. No one can assess the size, location and visual impact of these facilities.
- Consider the processing plant and associated structures are not in keeping with the rural landscape.
- The setting of Puckrup Hall Hotel and associated leisure facilities would be harmed by the large number of HGV movements and proposed mineral processing plant.
- The applicant has refused to address a possible offsite location of the mineral, processing plant, which would ease many of the site's negative impacts.
- MacMillan House is located on a clay stratum and is known to attenuate seismic waves.
- Spurious to compare a delicate old timber framed building next to a significant mining operation with a modern housing estate under construction.

- The applicant has not provided any data on the weight of HGVs using the Mythe Bridge route or anticipated vehicle movements and weights over King Johns Bridge into Tewkesbury.
- HGVs weighing 32 tonnes are proposed to use the Mythe Bridge which has a weight limit of 17 tonnes.
- Whilst the total vehicles using the A38 northbound would increase by 3% and southbound by 4%, this would still be a significant number of HGV movements and would increase the overall HGV movements on the A38 by approximately 46% northbound and approximately 21% southbound.
- Adverse highway safety as HGVs are some 20 times the weight of an average family car.
- There is an imminent planning application for a warehouse operation / business park adjacent to the M50 Motorway / A38 junction which would also add additional HGV traffic on the road network.
- Considers the proposal would result in HGVs queueing on the A38.
- Note that Exolum object to the proposal and are concerned about the proposed bridge crossing of the pipelines is constructed correctly. Therefore, this matter should be fully resolved before either Gloucestershire County Council or Worcestershire County Council are minded to grant planning permission. If Exolum's objection cannot be overcome, then planning permission should be refused.
- The drawing of the proposed bridge over the pipeline shows deep piles into the ground either side of the single pipe. There is no analysis to say how safe the pile driving would be close to the highly pressurised pipework. The installation of the bridge construction could be as damaging as the vibrations created by multiple 32 tonne trucks feeding their loads into the bridge piles over literally decades.
- The application site is not allocated as a preferred site and is not included in the adopted Worcestershire Minerals Local Plan or emerging Mineral Site Allocations DPD and consider the site should not be considered for approval.
- Objections have been submitted to the application site being included in the emerging Mineral Site Allocations DPD, therefore, for the County Council to make a decision on the application would pre-empt the formal consideration and adoption of the emerging Mineral Site Allocations DPD.
- The applicant has failed to demonstrate a net economic benefit from the proposal when offset against the detrimental negative effects on local businesses.
- The applicant has not clearly stated whether the aftercare period is 5 years or 10 years and from when this timescale starts.
- The proposal would commercialise the Common Land.
- There would be a significant carbon footprint associated with the proposed development, therefore, the applicant should submit a carbon offset plan.
- Consider that on a cumulative basis the application should be refused.
- In relation to alternatives, whilst acknowledging the applicant has examined 5 different scenarios, consider that these are not the only option and refer to use of barges, and smaller area of extraction with buffer to residential and commercial properties.

The Head of Planning and Transport Planning's Comments

428. As with any planning application, this application should be determined in accordance with the provisions of the Development Plan unless material

considerations indicate otherwise. The relevant policies and key issues have been set out earlier.

429. As set out earlier in this report, the application site straddles the administrative boundaries of Worcestershire and Gloucestershire. Parallel applications have been submitted to both Worcestershire County Council and Gloucestershire County Council. This report considers the development located in Worcestershire.

Worcestershire's landbank of sand and gravel reserves

430. Letters of representation have been received objecting to the proposal on the ground that the need for minerals in England is overestimated as the demand for housing is overestimated. Letters of representation have also been received in support of the proposal on the grounds of need for minerals, which is a key element for house building.

431. National planning policy for minerals is contained within Section 17 'Facilitating the sustainable use of minerals' of the NPPF. Paragraph 209 of the NPPF states *"it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation"*. Paragraph 211 of the NPPF states *"when determining planning applications, great weight should be given to the benefits of mineral extraction, including the economy"*.

432. Paragraph 213 of the NPPF states *"minerals planning authorities should plan for a steady and adequate supply of aggregates by...maintaining landbanks of at least 7 years for sand and gravel...whilst ensuring that the capacity of operations to supply a wide range of materials is not compromised"*. As required by the NPPF, the County Council has produced a Local Aggregate Assessments (LAA), to assess the demand for and supply of aggregates in Worcestershire.

433. The LAA (published February 2022) covers the period up to 31 December 2020 and, in accordance with the NPPF (paragraph 213), calculates annual provision requirements on a rolling average of 10 years' sale data in Worcestershire and other relevant local information.

434. The starting point for setting a production guideline for sand and gravel in the LAA is to estimate demand on the basis of a rolling average of 10 years sales data (the 10-year average) before considering other relevant local information. The 10-year sales average is designed to provide a representative baseline indication of demand by averaging out economic peaks and troughs. The COVID-19 pandemic resulted in enforced shutdown of large sections of the UK economy. Sales of sand and gravel from Worcestershire in 2020 were approximately 0.377 million tonnes, considerably lower than approximately 0.596 million tonnes sold in the previous year (2019) which was unaffected by the COVID-19 pandemic. The LAA, therefore, considered it would not be appropriate to rely on 2020 sales figures in the baseline 10-year sales average due to the impact on sales figures being beyond that which can be considered a "usual" fluctuation in market demand.

435. The 10-year average of sales of sand and gravel from 2010 to 2019 including combined data with Herefordshire Council for 2012 and 2013 is 0.569 million tonnes. The LAA states that indicators of increasing demand suggest that the production

guideline for primary sand and gravel should vary from the 10-year average and, therefore, it proposes to deviate from the 10-year sales average by plus 50%.

436. The annual production guideline for sand gravel identified by the LAA is therefore 0.853 million tonnes. Based on this production guideline and the stock of permitted reserves of approximately 2.504 million tonnes of sand and gravel, Worcestershire had a landbank of approximately 2.94 years on 31 December 2020. This is below the 7-year landbank required by national policy and indicates that there is currently a shortfall of permitted reserves in the county.

437. Since 31 December 2020, the MPA granted planning permission on 25 March 2021 (MPA Ref: 18/000036/CM, Minute No. 1069 refers) for a proposed sand quarry, infilling void using inert materials only with restoration to agricultural use together with new access, landscaping and associated works on land adjacent to former Chadwich Lane Quarry, Chadwich Lane, Bromsgrove, Worcestershire. Based on the proposed extraction of approximately 1.35 million tonnes per year, this has increased the landbank by approximately 1.58 years.

438. Assuming production guideline for sand and gravel set out in the LAA (0.853 million tonnes) continued in 2021, then the landbank of permitted reserves on 31 December 2021 would be approximately 3.001 million tonnes of sand and gravel, equating to about 3.52 years. Consequently, on 31 December 2021 Worcestershire did not have sufficient reserves of sand and gravel available with planning permissions to meet its annual production guidelines based on sales and other relevant local information, in accordance with national planning policy and guidance.

439. Since 31 December 2021, the MPA granted planning permission on 8 July 2022 (MPA Ref: 21/000029/CM, Minute No. 1102 refers) for the proposed importation of inert restoration material and extraction of approximately 245,000 tonnes of sand to enable engineering operations for stability purposes and completion of site restoration at (Western portion of the former) Sandy Lane Quarry, Wildmoor. This has increased the landbank by approximately 0.29 years.

440. Assuming production guideline for sand and gravel set out in the LAA (0.853 million tonnes) continued in 2022, then the landbank of permitted reserves on 30 September 2022 would be approximately 2.606 million tonnes of sand and gravel, equating to about 3.06 years. Consequently, at the time of the determination of this application, Worcestershire has a land landbank of sand and gravel reserves below the minimum 7-years required by national policy and indicates that there is currently a shortfall of permitted reserves in the county.

441. Should this planning application be granted permission, it would increase the landbank by approximately 1.69 years, equating to a landbank of approximately 4.75 years, which is still below the minimum landbank for at least 7 years for sand and gravel.

442. It is noted that there are also a number of planning applications for mineral extraction pending consideration, namely:

- Pinches Quarry Phase 4, Wildmoor Lane, Wildmoor, Bromsgrove – Proposed extraction of approximately 1 million tonnes of sand and gravel (MPA Ref:

19/000056/CM). Should this planning application be granted, it would increase the landbank by approximately 1.17 years.

- Ryall North Quarry, Land off Ryall's Court Lane, Holly Green, Upton-upon-Severn – Proposed extraction of approximately 475,000 tonnes of sand and gravel (MPA Refs: 20/000009/CM and 20/000015/CM). Should this planning application be granted, it would increase the landbank by approximately 0.56 years.
- (Western portion of the former) Sandy Lane Quarry, Wildmoor - Proposed importation of inert restoration material and extraction of approximately 245,000 tonnes of sand to enable engineering operations for stability purposes and completion of site restoration (MPA Ref: 21/000029/CM). Should this planning application be granted permission, it would increase the landbank by approximately 0.29 years.
- Former Motocross site, Wilden Lane, Wilden, Stourport-on-Severn – Proposed extraction of approximately 250,000 tonnes of sand (MPA Ref: 21/000036/CM). Should this planning application be granted, it would increase the landbank by approximately 0.29 years.
- Ripple East, Bow Lane, Ripple – Proposed extraction of approximately 475,000 tonnes of sand and gravel with restoration to agriculture and nature conservation, including ponds, wetlands, hedgerows and lowland mixed deciduous woodland and meadows (Ref: 22/000015/CM). Should this planning application be granted permission, it would increase the landbank by approximately 0.56 years.

443. It is noted that Policy MLP 14: 'Scale of Sand and Gravel Provision' of the adopted Worcestershire Minerals Local Plan states that *"the scale of provision required over the life of the plan [2036] is at least 14.872 million tonnes of sand and gravel"*.

444. The Government's PPG (Paragraph Reference ID: 27-082-20140306) states *"for decision-making, low landbanks may be an indicator that suitable applications should be permitted as a matter of importance to ensure the steady and adequate supply of aggregates"*. Notwithstanding this, as indicated by the PPG (Paragraph Reference ID: 27-084-20140306) *"there is no maximum landbank level and each application for mineral extraction must be considered on their own merits regardless of length of the landbank. However, where a landbank is below the minimum level this may be seen as a strong indicator of urgent need"*.

445. Paragraph 2.24 of the adopted Worcestershire Minerals Local Plan states that *"as aggregates are bulky, costly to transport and generally fairly low value, they are typically only transported about 30 miles from their source. However, where a particular resource serves a distinct market, or where suitable resources are not available more locally, materials may travel further to meet demand"*.

446. It is considered that the proposal would contribute to providing a balanced geographical spread of mineral reserves and provide an additional mineral site, contributing to a steady and adequate supply of mineral and adding to resilience to the mineral supply in Worcestershire, which is currently provided by a limited number of active sites (Wildmoor Quarry and Chadwich Lane Quarry, north of Bromsgrove;

Clifton Quarry, south of Worcester; and Ryall North Quarry, north of Upton-upon-Severn).

447. The proposal is considered to be consistent with paragraph 213 f) of the NPPF as it would contribute towards the MPA's landbank for sand and gravel.

Location of the development

448. Paragraph 209 of the NPPF states that *"since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation"*.

449. The Government's PPG further states that *"planning for the supply of minerals has a number of special characteristics that are not present in other development: minerals can only be worked (i.e., extracted) where they naturally occur, so location options for the economically viable and environmentally acceptable extraction of minerals may be limited..."* (Paragraph Reference ID: 27-001-20140306).

450. Policy MLP 1: 'Spatial Strategy' of the Worcestershire Minerals Local sets out a spatial strategy for the location of minerals extraction, seeking to direct such development within the Strategic Corridors stating that *"for most types of mineral, the majority of development over the life of the plan will be located in the Avon and Carrant Brook, Lower Severn, North East Worcestershire, North West Worcestershire and Salwarpe Tributaries Strategic Corridors: i. Development for sand and gravel...will be supported within the strategic corridors and will not normally be supported elsewhere in the county..."*.

451. The reasoned justification to Policy MLP 1 states that *"to serve market demand for mineral resources in and around Worcestershire, and to support the local and wider economy five strategic corridors are identified [within the Worcestershire Minerals Local Plan]... The identification of the strategic corridors has been informed by the distribution of the mineral resources which are found in Worcestershire... The distribution of sand and gravel...resources has been instrumental in defining the strategic corridors. The strategic corridors are the areas in the county where these are the greatest concentrations of sand and gravel, silica sand, and brick clay resources which are not affected by significant viability, environmental and amenity constraints"*.

452. The reasoned justification goes on to state that *"the strategic corridors are well located to serve planned housing and infrastructure developments and are connected to the strategic transport network... Concentrating mineral development in the strategic corridors will enable a co-ordinated approach to the working and restoration of mineral sites, giving greater opportunities to deliver integrated social, economic and environmental gains than if sites are considered in isolation. The character and distinctiveness of each of the strategic corridors sets a framework for the cost-effective delivery of multifunctional green infrastructure priorities"*.

453. The proposed development would be located within the 'Lower Severn Strategic Corridor' as shown and defined on the Minerals Local Plan Policies Map, in accordance with Policy MLP 1 of the adopted Worcestershire Minerals Local Plan.

454. The Government's PPG states that *"mineral planning authorities should plan for the steady and adequate supply of minerals in one or more of the following ways (in order of priority):*

- 1) *Designating Specific Sites – where viable resources are known to exist, landowners are supportive of minerals development and the proposal is likely to be acceptable in planning terms. Such sites may also include essential operations associated with mineral extraction;*
- 2) *Designating Preferred Areas, which are areas of known resources where planning permission might reasonably be anticipated. Such areas may also include essential operations associated with mineral extraction; and/or*
- 3) *Designating Areas of Search – areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply"* (Paragraph Reference ID: 27-008-20140306).

455. The emerging Worcestershire Minerals Site Allocations DPD is being produced to support the adopted Worcestershire Minerals Local Plan, which will allocate "specific sites" and "preferred areas" for mineral extraction. The site, which is the subject of this report, has been promoted through the Local Plan process. A range of technical evidence is being gathered to inform a "Preferred Options" draft of the Worcestershire Minerals Site Allocations DPD. This draft will show how each site performs against site selection criteria and will set out draft policy wording. Consultation on the "Preferred Options" draft of the Worcestershire Minerals Site Allocations DPD is scheduled to take place in Quarter 2 - Quarter 3 of 2023.

456. The adopted Worcestershire Minerals Local Plan designates "areas of search". Policy MLP 3: 'Strategic Location of Development – Areas of Search and Windfall Sites within the Strategic Corridors' of the of the Worcestershire Minerals Local states that: *"areas of search are allocated within the Avon and Carrant Brook, Lower Severn, North East Worcestershire, North West Worcestershire and Salwarpe Tributaries Strategic Corridors, as shown [within the adopted Worcestershire Minerals Local Plan]...a) planning permission will be granted for new mineral developments and extensions to extant sites within allocated areas of search where there is a shortfall in supply as demonstrated by part c)".*

457. Part c) of the policy states: *"a shortfall in supply for a broad mineral type will be considered to exist where: i) there is a shortfall in extant sites and allocated specific sites and / or preferred areas to meet the scale of provision required over the life of the plan..."*.

458. The reasoned justification to Policy MLP 3 states that *"areas of search have been allocated to provide a positive framework to ensure that a sufficient supply of minerals can be delivered over the life of the plan, to facilitate the minerals industry to find and put forward sites, and (combined with the strategic corridor priorities in policies MLP 8 to MLP 12 to provide as much certainty as possible to communities over where and how mineral development might take place if there is a shortfall in supply of a particular mineral"*.

459. Phases 1 to 9 of the proposal would be located within an “area of search” as shown and defined on the Minerals Local Plan Policies Map. The Head of Planning and Transport Planning considers that there is currently a shortfall in extant sites, allocated specific sites and preferred areas to meet the scale of provision required over the life of the adopted Worcestershire Minerals Local Plan, given that the emerging Worcestershire Minerals Site Allocations DPD which will allocate “specific sites” and “preferred areas”, is at an early stage of preparation and has not, therefore, been subject to consultation, tested at examination or adopted by the County Council. Furthermore, as outlined in the ‘Worcestershire’s landbank of sand and gravel reserves’, the current landbank is considerably below the minimum 7 years for sand and gravel. However, Flexible Working Areas A and B, lie outside the “area of search”.

460. Where a site lies within a Strategic Corridor but outside “areas of search” part b) of Policy MLP 3 of the adopted Worcestershire Minerals Local Plan is relevant. Part b) states *“planning permission will be granted for new mineral developments and extensions to extant sites on windfall sites within the strategic corridors where there is both a shortfall in supply as demonstrated by part c and either: i. the mineral resource was not allocated due to viability, environmental or amenity constraints, and it is clearly demonstrated by the applicant that those constraints can be satisfactorily managed or mitigated; or ii. the deposits were not known, or were not considered to be resources of local or national importance, and therefore did not inform the identification of mineral allocations, and sufficient geological and market data is provided by the applicant to demonstrate the presence of a nationally or locally important mineral resource”*.

461. The reasoned justification to Policy MLP 3 also states that *“the areas of search encompass all of the mineral resources within the strategic corridors which are not affected by significant viability, environmental or amenity constraints. However, it is possible that the constraints on a particular resource could be satisfactorily addressed by a particular development proposal, or that mineral deposits exist within the corridors which were either not considered to be a mineral resource of local or national importance or not known about during the development of the Minerals Local Plan.*

462. *The analysis of mineral resources which led to the identification of areas of search considered the available information about the mineral resources which are present in the county in order to evaluate the likelihood of them being suitable and commercially attractive for exploitation during the lifetime of the Minerals Local Plan. This included consideration of high-level viability criteria, and addressed the National Planning Policy Framework’s requirement that plans should allocate land with the least environmental or amenity value by screening out land with national or international designations which should be afforded the highest level of protection.*

463. *The information available about the quantity and quality of resources is variable, and a number of assumptions were made to enable the strategic assessment of the viability of resources. Site-specific information about the quantity and quality of material in a particular deposit, or significant changes in the economic viability of a particular type of mineral, may indicate that the viability constraints can be overcome.*

464. *It is possible that over the plan period, applications may come forward to work mineral deposits which were either not known to exist at the time the plan was*

developed, or for which there was not sufficient evidence that they should be considered to be a mineral resource of national or local importance and were therefore not analysed for potential allocation in the Minerals Local Plan. Applicants will be expected to provide evidence to demonstrate the type, quantity and quality of the material proposed to be worked, and appropriate information to demonstrate that it is a nationally or locally important resource”.

465. When drafting the Worcestershire Minerals Local Plan, the starting point for the defining the “areas of search” was to filter British Geological Survey (BGS) data using the “BGS Rock Classification Scheme” attributes. For terrace and glacial sand and gravel deposits this meant filtering the superficial deposits data using the BGS Rock Classification Scheme categories of "sand", "sand and gravel" and "gravel". This does not include Alluvium (loose clay, silt, sand, or gravel that has been deposited by running water in a stream bed, on a floodplain). The Flexible Working Areas A and B are within Alluvium deposits according to the BGS data, and therefore were not included in the terrace and glacial sand and gravel deposits put through the screening exercise to define the “areas of search” for the adopted Worcestershire Minerals Local Plan. In view of this, part b, ii. of Policy MLP 3 would apply: *“the deposits were not known, or were not considered to be resources of local or national importance, and therefore did not inform the identification of mineral allocations, and sufficient geological and market data is provided by the applicant to demonstrate the presence of a nationally or locally important mineral resource”.*

466. The applicant has provided Mineral Depth Isopachyte drawing (contour lines drawing showing depth of mineral) and Boreholes Locations drawing and accompanying data, illustrating the depth of minerals in flexible working areas ranges from 0 metres to 3.75 metres deep, providing approximately 84,586 tonnes of workable sand and gravel. Therefore, the applicant has demonstrated the presence of sand and gravel, and it is considered that the proposal meets part c and part b ii of Policy MLP 3 of the adopted Worcestershire Minerals Local Plan.

467. In view of the above, the Head of Planning and Transport Planning considered that the location of the proposed development accords with the strategic locational policies of adopted Worcestershire Minerals Local Plan, in accordance with Policies MLP 1 and MLP 3 of the adopted Worcestershire Minerals Local Plan.

468. Consideration of the proposal against Policy MLP 9: ‘Lower Severn Strategic Corridor’ of the adopted Worcestershire Minerals Local Plan, is set out in the ‘Restoration and aftercare of the site’ section of this report. This policy sets the priorities for the delivery of multifunctional green infrastructure in the Lower Severn Strategic Corridor.

Best and Most Versatile (BMV) agricultural land

469. The NPPF defines BMV agricultural land as Grades 1, 2 and 3a of the agricultural land classification.

470. A Soil Resources and Agricultural Use and Quality of Land Survey and Soil Handling Strategy accompanied the application. The Strategy identifies that the site consists of a small area of BMV agricultural land classification Grade 2 (approximately 3.3 hectares, equating to about 5.1%), which is located in Gloucestershire with the majority of the site being BMV agricultural land classification Grades 3a (approximately 29.6 hectares, equating to about 45.7%), together with

Grade 3b (approximately 29 hectares, equating to about 44.8%), which is relatively low grade agricultural land, and approximately 2.9 hectares, equating to about 4.48% of non-agricultural land (such as river embankments, hedgerows and farm tracks).

471. With regard to the soil resource and BMV agricultural land, it is noted that letters of representation object to the proposal on the grounds of permanent loss of agricultural land. Ripple Parish Council object to the proposal commenting that there does not appear to be any independent confirmation that the current high grade agricultural land would be available after restoration. CPRE Gloucestershire also object to the proposal stating that they are not convinced that restoration to such quality can be assured even though it may be aspired to, however, they do not have the resources available to verify whether the response by the applicant fully satisfies the points raised by Natural England in relation to soil resource and BMV agricultural land, and strongly encourage the MPA to consult Natural England on these matters.

472. Paragraph 174 of the NPPF states that *"planning policies and decision should contribute to and enhance the natural and local environment by a) protecting and enhancing...soils (in a manner commensurate within their statutory status or identified quality in the Development Plan);...b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the BMV agricultural land, and of trees and woodland"*. Footnote 58 of the NPPF states that *"where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality"*.

473. Policy MLP 34: 'Soils' of the adopted Worcestershire Minerals Local Plan states that *"planning permission will be granted where it is demonstrated that the proposed mineral development will conserve soil resources and their quality. A level of technical assessment appropriate to the proposed development and its potential impacts on soil resources will be required to demonstrate that, throughout its lifetime, the proposed development will: a) retain all soils within the site; and b) make appropriate provision for: i. soil stripping; ii. Soil handling; iii) soil storage; and iv. Re-use of soils"*.

474. Policy MLP 35: 'Best and Most Versatile Agricultural Land' of the adopted Worcestershire Minerals Local Plan states that *"planning permission will be granted where it is demonstrated that the proposed mineral development will safeguard the long-term potential of BMV agricultural land. A level of technical assessment appropriate to the proposed development and its potential impacts on BMV agricultural land will be required to demonstrate that, throughout its lifetime, the proposed development will:*

- a) prioritise the development of poorer-quality land in preference to higher-quality land, avoiding significant development of BMV agricultural land unless it is demonstrated to be necessary;*
- b) safeguard the long-term potential of BMV agricultural land by enabling the land to retain its longer-term capability for agricultural use where practicable, though the proposed after-use need not always be for agriculture; and*
- c) optimise the restoration of agricultural land quality and integration of green infrastructure components, where the proposed after-use includes agriculture"*.

475. As set out above, approximately 32.9 hectares of the existing agricultural land (in Gloucestershire and Worcestershire combined) is Grades 2 (located in Gloucestershire) and 3a, which is BMV agricultural land. The proposed restoration seeks to establish new areas of nature conservation and wetland and approximately 30 hectares of agricultural land, restored to Grade 3a, equating to an overall net loss of BMV by approximately 2.9 hectares (Worcestershire and Gloucestershire combined).

476. The applicant has confirmed that there would be a loss of approximately 3.36 hectares of BMV agricultural land in Gloucestershire due to the retention of the clean water pond and silt ponds and surrounding habitats. However, in Worcestershire there would be a gain of approximately 0.46 hectares as the applicant proposes to create additional BMV agricultural land on the swathe of former Grade 3b agricultural land in part of Phases 1 to 9.

477. It is noted that Natural England comment that whilst the restoration proposals on some of the BMV agricultural land are for non-agricultural purposes, they consider that the proposed reclamation to a biodiversity afteruse is acceptable, provided the methods used in the restoration and aftercare would enable for the land to retain its longer-term capability to be farmed to its land classification potential, thus remaining a high-quality resource for the future.

478. With regard to the land proposed to be restored for agriculture purposes, the Soil Handling Strategy states a restored soil profile depth of approximately 1.2 metres would be achieved for the reinstated areas of agriculture. The Strategy recommends that the permeable sandy loam subsoils should be laid to a depth of approximately 800mm with light loamy topsoils laid to a depth of approximately 400mm, which would result in the land being restored to Grade 3a agricultural land. This is due to combining the more droughty sandy subsoils (that currently give Grade 3b agricultural land) with the loamier subsoils elsewhere in the extraction area during the stripping, storage and replacement operations it is predicted that this would alleviate any droughtiness limitations of the sandier soils.

479. With regard to the area proposed for wetland-based restoration, located adjacent to the River Severn. The Strategy states that wetland-based restoration would be best achieved by excluding the topsoil resource, which is likely to be high in available nutrients and would result in excessive nutrient loss to wetland areas causing eutrophication. The clay subsoils located in this area would provide a good lining for the waterbodies, and the stripped heavy topsoil resource would be utilised as a moderate quality landscaping resource for proposed areas of planting and landscape works.

480. The Soil Resources and Agricultural Use and Quality of Land Survey and Soil Handling Strategy make a number of recommendations to protect the valuable soil resources from loss or damage, including:

- All topsoil and subsoil would be permanently retained on site and used in restoration
- All soils shall only be handled when they are in a dry and friable condition
- When stripping and transporting soils, care would be taken to ensure that machinery does not travel across unstripped or reinstated materials
- Soils will be stripped to their full depth

- Topsoil bunds being a maximum height of 3 metres
- Topsoil should be stripped from areas used for subsoil storage
- Bunds that shall be in situ for more than 6 months should be grass seeded to prevent water erosion and loss of nutrients

481. The Strategy concludes that subject to the proposed methods for soil stripping, handling, storage and replacement outlined within the Strategy would ensure that the existing soil resource within the application site would be protected from compaction and damage during operations.

482. Natural England have been consulted in respect of soils and BMV agricultural land and are satisfied that the Soil Resources and Agricultural Use and Quality of Land Survey and Soil Handling Strategy constitutes a record of the pre-working agricultural land classification grading and physical characteristics of the land within the application site boundary. Natural England raises no objections to the proposal, stating that they are satisfied with the Detailed Restoration and LEMP and Soils Handling Strategy, except they consider that the applicant should design under land drainage into the scheme at the start rather than rely on retrospectively designing if needed.

483. Based on the above comments, the Head of Planning and Transport Planning considers that subject to the imposition of appropriate conditions relating to the management of the soil resource including the development being carried out in accordance with the submitted Soil Handling Strategy, detailed drainage scheme, an updated Outline Aftercare Scheme and Detailed Aftercare Scheme, then the objectives of the NPPF in respect of soils and their use in the restoration of BMV agricultural land would be met, and the scheme would be in accordance with Policies MLP 34 and MLP 35 of the adopted Worcestershire Minerals Local Plan.

Alternatives

484. Letters of representations have been received objecting to the proposal on the grounds of alternatives, in particular suggesting there are alternative sites elsewhere not close to villages and the proposal should consider alternative transport to that of HGV by using barges on the River Severn. Ripple Parish Council, Twyning Parish Council, Longdon, Queenhill and Holdfast Parish Council, CPRE Worcestershire and CPRE Gloucestershire also makes comments in relation to exploring the use of barges on the River Severn.

485. Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 outlines the information for inclusion within ESs. Paragraph 2 states *“a description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects”*.

486. The PPG states that *“the 2017 Regulations do not require an applicant to consider alternatives. However, where alternatives have been considered, paragraph 2 of Schedule 4 requires the applicant to include in their ES a description of the reasonable alternatives studied...and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects”* (Paragraph Reference ID: 4-041-20170728).

487. The applicant has confirmed that they considered a number of alternatives during the preparation of the proposed development. The alternatives considered were:

- No development option
- Alternative extraction sites
- Alternative methods of extraction and processing
- Alternative methods of transportation
- Alternative restoration

488. In relation to the 'no development option', the applicant states that *"the 'no development' option would result in no impacts on the local environment from extraction of the land at Bow Farm, however, there would be a number of significant impacts both economic and environmental. Mineral development can only take place where the resource naturally occurs. As detailed within the NPPF, "great weight" should be applied to the benefits of mineral extraction, "including to the economy". In a scenario where no development takes place, a beneficial and economically viable mineral resource would not be worked... These vital materials and supplies would need to be provided from alternative sources. In environmental terms, a 'no development option' would fail to deliver significant biodiversity and landscape benefits at the site"*. For the above reasons, a 'no development option' was discounted by the applicant.

489. The Head of Planning and Transport Planning also considers that there is a need for the development, which is discussed in detail in the 'Worcestershire's landbank of sand and gravel reserves' section of this report, which demonstrates that the landbank is below the minimum of 7 years for sand and gravel, which demonstrates that there is a shortfall in supply.

490. In relation to 'alternative extraction sites', the applicant states that *"the consideration of alternative sites for mineral development is limited as minerals can only be worked where they occur naturally. Allocation sites, Areas of Search and Strategic Corridors are being promoted through the emerging Worcestershire Mineral Site Allocations DPD. The Worcestershire Mineral Local Plan provides guidance to developers and local residents on areas where planning permission could potentially be granted for mineral extraction"*. The applicant goes on to state that the *"land is located within the Lower Severn Strategic Corridor and within an Area of Search for sand and gravel extraction. On this basis, mineral extraction at the site is considered to be supported in principle"*.

491. The principle of the location of the proposal is considered in further detail in the 'Location of the development' section of this report, which demonstrates the proposal is in accordance with the strategic locational policies of the adopted Worcestershire Minerals Local Plan.

492. With regard to the letters of representation objecting to the proposal on the grounds of alternative sites are available elsewhere. The Head of Planning and Transport Planning notes that it is only in exceptional circumstances that an alternative proposal will be relevant. The court has held that consideration of alternative sites would only be relevant to a planning application in exceptional circumstances and that generally *"such circumstances will particularly arise where the*

proposed development, though desirable in itself, involves on the site proposed such conspicuous adverse effects that the possibility of an alternative site lacking such drawbacks necessarily itself...becomes a relevant planning consideration upon the application in question” [In R (oao J (A.Child) v North Warwickshire BC [2001] PLCR 31]. For such an alternative to be a candidate for consideration there must at least be a likelihood or real possibility of them eventuating in the foreseeable future [Mount Cook v Westminster City Council [2003] EWCA Civ 1346]. In the case of R (oao Brommell) v Reading BC [2018] EWHC 3529 (Admin), it was held: “the task of the local planning authority is to consider the planning merits of the particular application for planning permission. Generally, land may be developed in any way which is acceptable for planning purposes and so planning law does not require the local planning authority to consider whether the proposed development would be more appropriately located at an alternative site. Exceptionally, the circumstances may be such that a potential alternative site is a material consideration which the local planning authority either must have regard to, or may have regard to, in the exercise of its planning judgment”. In addition, Richards J held in Laing Homes Ltd v Secretary of State for Transport, Local Government and the Regions [2002] EWHC 1967 (Admin); [2003] 1 P&CR 18 that a decision by a planning authority not to take account of an alternative site could be challenged only on the grounds of Wednesbury unreasonableness. In R (Samuel Smith Old Brewery (Tadcaster) and others) v North Yorkshire County Council [2020] UKSC 3, Carnwath LJ stated:

“30. The approach of the court in response to such an allegation has been discussed in a number of authorities. I sought to summarise the principles in Derbyshire Dales District Council v Secretary of State for Communities and Local Government [2009] EWHC 1729 (Admin); [2010] 1 P & CR 19. The issue in that case was whether the authority had been obliged to treat the possibility of alternative sites as a material consideration. I said:

“17. It is one thing to say that consideration of a possible alternative site is a potentially relevant issue, so that a decisionmaker does not err in law if he has regard to it. It is quite another to say that it is necessarily relevant, so that he errs in law if he fails to have regard to it ...

18. For the former category the underlying principles are obvious. It is trite and long-established law that the range of potentially relevant planning issues is very wide (Stringer v Minister of Housing and Local Government [1970] 1 WLR 1281); and that, absent irrationality or illegality, the weight to be given to such issues in any case is a matter for the decisionmaker (Tesco Stores Ltd v Secretary of State for the Environment and West Oxfordshire District Council [1995] 1 WLR 759, 780). On the other hand, to hold that a decisionmaker has erred in law by failing to have regard to alternative sites, it is necessary to find some legal principle which compelled him (not merely empowered) him to do so”.

493. The Head of Planning and Transport Planning considers this is not one of the exceptional cases where an alternative scheme is relevant. Vague alternative schemes should be given very little if any weight and does not constitute a valid reason for refusing this planning application in this instance.

494. In relation to ‘alternative methods of extraction and processing’, the applicant states that *“the proposed method of extraction and processing is considered to be well established and routine of operations carried out at large sand and gravel sites.*

There is little in the way of alternatives to the current methods of extraction using excavators, dump trucks and a conveyor. The location of the conveyor and feed hopper has been carefully considered, distant from sensitive receptors. The use of a conveyor system limits the travel distances of dump trucks between extraction phases and the processing plant. While there is an alternative to the fixed processing plant, namely mobile machinery that follows extraction through the site, this is discounted on amenity grounds. The proposed location of the fixed plant is considered to provide natural screening and protection from areas at risk of flooding. Alternative development within the proposed extraction area has been considered in terms of design (phasing, extraction limits) and the location of soil and overburden stores. However, the proposed extraction design has been determined following consideration of potential environmental issues such as visual, water, noise and dust impacts. The phasing and direction of working provides mitigation of potential environmental impacts whilst meeting operational and legislative requirements”.

495. In relation to ‘alternative methods of transportation’, the applicant states that “most deliveries of sand and gravel and concrete to the local construction market are expected to take place within the Worcestershire and Gloucestershire region. The site benefits from direct access onto the A38, from which the Motorway network (M50 and M5 Motorways) can be reached within just 1.3 kilometres. This is considered to represent excellent access links to the wider construction market”.

496. The applicant states that “a reoccurring theme of the public consultation exercise centred on the previous use of a river wharf and barge to transport ‘as dug’ [unprocessed sand and gravel] mineral from the neighbouring Ripple Quarry for processing at a separate site upstream. Ripple Quarry has now been worked and restored, albeit the wharf still exists. The wharf is located on third party land and is not directly available for use by the applicant. Crucially, however, even if access to the wharf was permitted, the applicant does not own or have access to any alternative land on which a processing facility could be sited, and which can be suitably accessed by barge. While the use of barge to transport materials for processing could reduce amenity impacts derived from HGV movements, it does not present a more sustainable option. Deliveries to the end user would need to be by road in any event. Furthermore, the use of barge to transport ‘as dug’ material does not represent an efficient or viable alternative to getting mineral to the open market. Indeed, use of a barge would inevitably prolong the time required to extract mineral, increase the need for stockpiling and storage and delay restoration. Under the submitted proposal the site operation can be contained within one area. The site is located a short-distance from the Motorway network and would allow for the working and restoration of the land within a more efficient and expedient manner”. For the above reasons, ‘alternative methods of transportation’ were discounted by the applicant.

497. The Head of Planning and Transport Planning also notes that even if mineral was proposed to be transported by barge to the existing Ryall House Farm processing plant (MPA Ref: 15/000012/CM, Minute No. 940 refers), operated by CEMEX, it is noted that onward journeys of processed mineral from this site would still be via HGVs along the A38. Furthermore, it is noted that the maximum throughput of Ryall House Farm processing plant is approximately 320,000 tonnes per annum, which is currently being supplied by Ryall North Quarry (extraction rate of approximately 300,000 to 320,000 tonnes per annum). There are two pending planning applications for an extension to Ryall North Quarry and amendments to the approved restoration scheme (MPA Refs: 20/000009/CM and 20/000015/CM). Should

planning permission be granted, this would extend the life of Ryall North Quarry by 1.5 to 2 years, with the mineral continuing to be processed at Ryall House Farm.

498. It is also noted that the Policy MLP 15: 'Delivering a Steady and Adequate Supply of Sand and Gravel' of the adopted Worcestershire Minerals Local Plan seeks to maintain or enhance the productive capacity for sand and gravel materials and products. The reasoned justification to this policy states that *"in addition to maintaining a landbank of permitted reserves, the MPA needs to ensure sufficient productive capacity is maintained in the county for a wide range of materials and products...Productive capacity at an individual site is not directly related to the size of its permitted reserves. The contribution a site can make to the annual supply of materials (its productive capacity) can be directly limited by the maximum possible throughput of a site's processing plant, or indirectly through measures which seek to minimise or mitigate environmental or amenity impacts, such as limiting opening hours or the number of vehicle movements. With relatively few active sites and limited permitted reserves, the overall security of Worcestershire's productive capacity could be put at risk by commercial decisions or natural events at any individual site.* Therefore, by proposing a new mineral processing plant on-site (located in Gloucestershire), rather than transporting to existing mineral processing plants would contribute to and enhance the overall security of productive capacity for the supply of sand and gravel.

499. In relation to 'alternative restoration', the applicant states that *"the proposed restoration strikes an appropriate balance of maintaining high-grade agricultural land while providing significant nature conservation gain. Restoration of agricultural areas would be achieved using site derived soils and overburden combined with imported inert material. This ensures the land can be returned to its pre-extraction level and condition (through appropriate soil handling and management) thereby retaining large areas of BMV agricultural land. One alternative would be restoration of site using stored soils and overburden only. This would result in a lower-level restoration profile which, while providing additional flood storage capacity, would almost certainly result in the loss of BMV agricultural land. This would not be consistent with national or mineral planning policy requirements"*. The use of inert material to restore the site is considered in further detail within the 'Restoration and aftercare of the site' section of this report.

500. In view of the above, the Head of Planning and Transport Planning considers that the applicant's approach to the consideration of alternatives is acceptable in this instance.

Traffic, highway safety and impact upon public rights of way

501. Objections have been received from local residents, Ripple Parish Council, Twynning Parish Council, Bushley Parish Council, and Longdon, Queenhill and Holdfast Parish Council objecting to the proposal on traffic, highway safety grounds and public rights of way. Tewkesbury Town Council raise concerns about the potential adverse impact of HGVs on Tewkesbury's highway network.

502. Policy SWDP 4: 'Moving Around South Worcestershire' of the adopted South Worcestershire Development Plan sets out, amongst other aspects, that proposals must demonstrate that they address road safety. Policy WCS 8: 'Site infrastructure' of the adopted Worcestershire Waste Core Strategy sets out, amongst other aspects,

that *“the impact of development and its associated traffic movements on the safety, integrity and amenity of the transport network must be considered”*.

503. Policy MLP 30: ‘Access and Recreation’ of the adopted Worcestershire Minerals Local Plan seeks to optimise opportunities to enhance rights of way network and the provision of publicly accessible green space. It also seeks to ensure that proposals would not have an acceptable adverse effect on the integrity and quality of existing rights of way network or navigable waterways and retaining rights of way in situ unless it is demonstrated that it is not practicable.

504. Policy MLP 39: ‘Transport’ of the adopted Worcestershire Minerals Local Plan states that *“planning permission will be granted for mineral development that uses the most sustainable transport options and which will not have an unacceptable adverse effect on transport safety or congestion. A level of technical assessment appropriate to the proposed development and its potential impacts on the local and strategic transport network will be required to demonstrate that, throughout its lifetime, and taking into account the cumulative effects of multiple impacts from the site and/or a number of sites in the locality, the proposed development will:*

- a) prioritise the use of alternatives to road transport for the movement of minerals and materials (including water, rail, conveyors and pipelines). Road transport of minerals and materials will only be acceptable where it is demonstrated that alternative modes are not practicable or are not environmentally preferable;*
- b) provide safe access for employees and visitors which, where appropriate, optimises the use of public transport, walking and cycling;*
- c) connect to the strategic transport network without having an unacceptable adverse effect on safety or congestion of the local or strategic transport network;*
- d) not have an unacceptable adverse effect on the environment or amenity along transport routes; and*
- e) where new or modified routes are required, optimise opportunities to create and integrate green infrastructure”*.

505. Paragraph 111 of the NPPF states *“development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe”*.

506. Vehicular access into the site would be achieved via a bell mouth priority junction onto the A38 in Gloucestershire, leading to an internal haul road. The proposed access arrangement includes for a right turn lane ghost island serving the proposed development access. This would provide room for vehicles to wait before turning into the site, without impeding the free flow of traffic. This arrangement also presents an opportunity to improve the existing right turning provision for Page’s Lane and an opposing minor access to the north. A gap would be provided for turning into Page’s Lane and the opposing minor access.

507. Pedestrian footway provision and crossing facilities are proposed to the north and south of the site access. This would comprise provision of a short section of

footway (measuring approximately 2 metres wide by 15.5 metres long) extending from the proposed site access to a proposed uncontrolled pedestrian crossing facility across the A38, just south of the proposed site access, and a short section of footway (measuring approximately 2 metres wide by 25.5 metres long) extending north from Page's Lane junction to a proposed uncontrolled pedestrian crossing facility across the A38, just north of Page's Lane.

508. Visibility splays measuring approximately 4.5 metres by 160 metres in each direction are proposed, and to achieve this, trees on the boundary frontage with the A38 would be removed and the hedgerow managed to a level of no more than 0.6 metres high.

509. A wheel washing facility would be provided within the proposed processing plant area in Gloucestershire to service HGVs when exiting from the proposed processing plant site. Water would be sourced from the proposed clean water lagoon to feed the facility.

510. A haul road measuring approximately 300 metres long by 7.3 metres wide is proposed from the site access to the proposed processing plant area in Gloucestershire. This would initially be surfaced with a gravel-based finish, but once the proposed concrete processing plant is operational, the haul road would be formed of site produced concrete.

511. A Transport Assessment accompanied the application. To quantify the volume and composition of traffic flows on the A38, 2 Automatic Traffic Counters were placed to the north and the south of the proposed access position on the A38 for a consecutive 7-day period. The collated data summarised that the average number of HGVs for the same 24-hour period on the A38 during a weekday, weekend and whole week inclusive demonstrates that on a weekday an average total of 4,674 two-way vehicular movements were recorded. 498 (11%) of these were recorded as HGV movements. On a weekend, an average total of 3,205 two-way vehicular movements were recorded. 220 (7%) of these were recorded as HGV movements. During a whole week average, 4,254 two-way vehicular movements were recorded. A total of 419 (10%) of these were recorded as HGV movements.

512. The Transport Assessment outlines that under the combined 250,000 tonnes extraction and average of 165,222 tonnes import scenario per year, there would be approximately 144 HGV movements per day (72 HGVs entering the site and 72 HGVs exiting the site per day), equalling 13 two-way HGV movements per hour, or 1 HGV movement in either direction every 4 to 5 minutes during a weekday. This can be subdivided into the HGV movements associated with the export of mineral from the site, which are anticipated to be approximately 86 HGV movements per day (43 HGVs entering the site and 43 HGVs exiting the site per day), and the HGVs associated with the import of inert waste material, which are estimated to be approximately 58 HGV movements per day (29 HGVs entering the site and 29 HGVs exiting the site per day). The Transport Assessment states that the proposal would equate to an increase of approximately 3.3% of total traffic movements along the A38, which equates to approximately 34% increase in total HGV movements along the A38 during a whole week average.

513. The Transport Assessment anticipates the HGV movements would be distributed as follows:

- Worcester (A38 north) – 5% distribution (approximately 7 HGV movements)
- West / Wales (M50 Motorway west) – 30% distribution (approximately 43 HGV movements)
- Worcester / West Midlands (M5 Motorway north) – 30% distribution (approximately 43 HGV movements)
- Gloucester / Tewkesbury (M5 Motorway south) – 30% distribution (approximately 43 HGV movements)
- Hereford (A438 west) – 5% distribution (approximately 7 HGV movements)

514. The Transport Assessment estimated that approximately 90% of HGV movements would use the Motorway network, comprising of the M50 and M5 Motorways to the north of the quarry site. Approximately 5% are expected to use the A438 travelling westward and approximately 5% are likely to continue north along the A38.

515. To further analyse how the HGV development traffic would affect the highway network, a net percentage comparison of the two-way vehicle movements for the baseline and forecast scenarios during average weekday, weekend and whole weekdays was quantified. When comparing the proposal's two-way HGV development traffic to the existing baseline along the A38, the applicant anticipates that the proposal's HGV activity would result in an additional 3.1% of total vehicular movements during an average weekday and approximately an increase of 3.4% when taken as a whole week average.

516. The applicant anticipates that they would generally seek to avoid HGV movements during peak hour travel, as this may inhibit efficient movement of materials. However, the Transport Assessment has assessed the impact of the proposed HGV movements during peak hours as a worst-case scenario. The Assessment demonstrates that the change to traffic movements on the A38 during peak hours is very modest. During the AM peak (08:00 to 09:00 hours) it anticipates an increase of approximately 3.5% of the overall two-way HGV movements on the A38 and during the PM peak (17:00 to 18:00 hours) it anticipates an increase of approximately 2.6% of the overall two-way HGV movements on the A38.

517. The Transport Assessment also assessed the proposed HGV movements as part of the overall traffic levels at a number of locations. This shows that the percentage change in two-way movements on the A38 north of Junction 1 of the M50 Motorway is only 0.1%, which the Transport Assessment considers is negligible. There would be an increase of approximately 0.4% in movements to and from the A438, which was also assessed as negligible. The Transport Assessment states that any impact beyond these points on the A38 and A438 would only dilute further.

518. In terms of impacts at Junction 1 of the M50 Motorway, the Transport Assessment anticipates that the change in two-way traffic flows between the two roundabouts making up the interchange would be limited to approximately 1.4%, which it considers gives an indication of the impact at the interchange as-a-whole. The Transport Assessment notes that whilst the impact is greater on the entry and exit links of the mainline of the M50 Motorway itself (approximately 32% increase eastbound and westbound exits and entries with Junction 1 of the A38, respectively), it considers this is mainly due to the comparatively very low movements exiting and leaving the Motorway in this location.

519. The applicant states that staff vehicular movements to and from the proposal are likely to generate, as a worst-case scenario, 40 vehicle movements per day (20 vehicles entering the site and 20 vehicles exiting the site per day) during identified commuting hours falling outside of the proposed operational times and network peak hours. The Transport Assessment states that the staff vehicular movements represent approximately 4.8% increase on the A38 during the proposed AM (06:00 to 07:00 hours) commuter hour for the quarry and approximately a 2.7% increase during the PM (17:00 to 18:00 hours) commuter hour. The Transport Assessment considers that staff movements would have a negligible impact on the existing total traffic movements on the A38 and local highway network.

520. A highway safety review has been undertaken. This demonstrates that 10 Personal Injury Collisions were recorded within the review area, of which 9 were classified as 'slight' and 1 was classified as 'fatal.' There were no recorded 'serious' Personal Injury Collisions. The single Personal Injury Collision recorded as 'fatal' occurred along the A38, approximately 200-metres south of the Junction 1 of the M50 Motorway. The Personal Injury Collision was attributed to a car driver losing control when failing to negotiate a left-hand bend along the road. This resulted in the car colliding with a telegraph pole and a road sign. A single Personal Injury Collision was recorded involving a goods vehicle (of an unknown weight) and a car. The Personal Injury Collision was classified as a combination between loss of control and a head-to-head collision. The collision can be attributed to the car driver's misjudgement of speed as they approached the M50 Motorway slip-bound to exit. The highway safety review concludes that no identifiable significant highway patterns or design issues indicate a safety concern with the highway network surrounding the site.

521. As part of the applicant's response to the Regulation 25 Request (further information), the applicant has clarified that there would be ample circulation space within the proposed processing plant site area to avoid the need for unnecessary reversing during the loading / unloading of material. While ensuring the health and safety of site operatives, this also restricts any needless noise effects resulting from reverse / white noise beepers.

522. As part of the applicant's response to the further information request, they questioned the necessity of a vehicle routing plan, as weight restrictions are in force on routes south of the application site. A 17-tonne weight restriction is in force over the River Severn bridge on the A438 and a 7.5-tonne weight restriction applies to the bridge over the River Avon on the route into Tewkesbury. The existence of these weight-restricted bridges effectively requires all HGV movements to access / egress the site via the M50 Motorway and A38 (north of the application site). This is with the exception of any ad-hoc (and highly infrequent) deliveries which may be required to development schemes within the immediate area.

523. The applicant states that in excess of 90% of all HGV movements to / from the site would be carried out by the applicant's own fleet of vehicles. The Transport Assessment states that all vehicles are fitted with real-time trackers, alert systems, which report to the Fleet Managers if any vehicles utilise prohibited routes or in the event of a collision. The applicant states that this would help to identify and address any breach of company / planning controls should any isolated incidents occur.

524. In terms of internal movements between the proposed extraction area and processing plant site, the applicant anticipates that there would be approximately 50 movements per day, operated by 2 dump trucks.

525. The Transport Assessment and ES conclude that overall, there is no indication that demonstrable harm or severe impacts would occur on the highway network as a result of the introduction of a sand and gravel quarry on land at Bow Farm.

526. National Highways have been consulted and have raised no objections, subject to the imposition of an appropriate condition requiring a Geotechnical Assessment to ensure that the side slope of the excavation does not undermine the M50 Motorway and an inspection regime for the edge of the excavation adjacent to the Motorway. National Highways consider that the trip generation and distribution methodology, including staff traffic impact assessment to be robust and suitable.

527. The County Highways Officer has been consulted and has raised no objections to the proposal, noting that the proposed vehicle access is located off the A38 within the administrative boundary of Gloucestershire County Council, it is therefore a matter for Gloucestershire County Council, as the Highway Authority to comment on the suitability of the access design and the impact of traffic generation within Gloucestershire. They state that the impact on Worcestershire's highway network is limited to trips travelling on the A38 north of the M50 Motorway. This is estimated to represent 5% of the HGV activity, which equates to 7 two-way trips. It is considered that this level of activity would not have any impact on the operation or safety of the A38 heading towards Worcester. Staff trips would be above this but given they would be in cars and there is some opportunity for sustainable access it is considered that the number of movements would be unlikely to be of such a scale to be noticeable given the level of background traffic.

528. Gloucestershire County Council Highways Officer raises no objections to the proposal, subject to the imposition of conditions regarding completion of proposed vehicular access, provision of cycle storage, visibility splays, provision of electric vehicle charging points / spaces, HGV Routing Strategy Management Plan, onsite parking and loading / unloading facilities, highway condition survey, and limit on mineral output (maximum of 250,000 tonnes) or 52,560 two-way HGV movements per year. They consider there are no justifiable grounds on which an objection could be maintained on highway grounds.

529. The Head of Planning and Transport Planning considers that the above recommended conditions are a matter for Gloucestershire County Council to consider, as they relate to the element of the scheme in Gloucestershire.

530. Tewkesbury Town Council requests that, in the event of the proposal being permitted, it should be on the condition that HGVs from the site do not cross the Mythe Bridge, pass through Tewkesbury Town Centre, or use the Black Bear roundabout and Bredon Road. As set out above, the applicant has confirmed that there are weight restrictions in place on the bridges into Tewkesbury and over the River Severn, which rule out the prospect of quarry related HGVs crossing them. It is anticipated that all HGVs would access the site via the M50 Motorway and A38 (north of the site). The applicant has clarified that the reference to 'ad-hoc deliveries' in the submitted further environmental information is to account for a likely rare scenario whereby delivery is required within the local area that does not require access

northwards on the A38 / M50 Motorway or across the weight-restricted bridges to the south.

531. Ripple Parish Council recommend the imposition of a condition requiring that no plant or employment traffic should utilise Puckrup Lane and Bow Lane. The applicant has confirmed that there is no intention for any plant or associated HGV to use Puckrup Lane or Bow Lane for any reason. It is not possible to rule out the potential for employment-related traffic to use the Lane owing to the possibility of a nearby resident being employed at the site. A condition is recommended that access to the site should be from the proposed access in Gloucestershire, off the A38.

532. The Head of Planning and Transport Planning considers that the suitability of the access and the impacts upon the highway network in Gloucestershire are matters for Gloucestershire County Council to consider. In view of this, a condition is recommended restricting commencement of the development unless planning permission has been obtained for access to and from the site via the proposed haul road and access onto the A38 in Gloucestershire, this would ensure the proposed quarry cannot proceed until such a time that a suitable access is approved from the A38.

533. The proposed haul road between the proposed processing plant site and Phase 9 would cross Bridleway ATW37 in Gloucestershire. The applicant states to avoid any need to divert or stop-up this public right of way, a short section of textured concrete would be installed to safeguard the bridleway and retain access for recreational users. The applicant has confirmed that the site would have an internal speed limit of a maximum 10 miles per hour. A series of warning signs would also be erected. Priority would be afforded to users of the bridleway. The crossing point would be inspected daily by the mineral operator to ensure it remains clean and accessible. Inspections would also include a review of any maintenance requirements which would be addressed immediately where and when necessary. A post and rail fence would be installed on the eastern boundary of the haul road and around the silt and freshwater lagoons in the vicinity of the bridleway to ensure the safety of users of the public right of way.

534. In relation to impacts upon public rights of way, the County Highways Officer considers that the proposed bridleway crossing in Gloucestershire is acceptable, and also notes Footpath RP-550 runs parallel to the River Severn, which does not appear to be impacted by the proposal.

535. The County Footpath Officer has been consulted and has raised no objections to the proposal, subject to the applicant adhering to their obligations with regards to the footpath. The County Footpath Officer notes that Footpath RP-550 is located adjacent, but outside the red line application site area, and requests that suitable measures are put in place to secure the site.

536. In response to the County Footpath Officer, the applicant has confirmed that Footpath RP-550 would be safeguarded throughout the duration of site operations. Perimeter post-and-rail fencing would be aligned along the western extent of Flexible Working Area B, safeguarding users of Footpath RP-550 from adjacent operations.

537. The British Horse Society (East and West Midlands) have no objections to the proposal as it would not directly affect the equestrian rights of way within

Worcestershire. The British Horse Society (South-West) consider all relevant access issues have been considered and addressed in relation to this application.

538. The British Horse Society (South-West) note that the site would have a site speed restriction at all times, and there should be adequate signage indicating the speed restriction and in addition, towards the location of the crossing point with the bridleway, horse warning signs should be displayed and a 'bridleway crossing' sign be placed at the crossing point itself reinforcing the location of the bridleway. They comment that there would also need to be warning signs strategically placed on the bridleway warning of lorry movements and the crossing location. It is important to ensure that horses do not stray onto the land from the field adjoining the proposed new access track, therefore, the British Horse Society (South-West) make a number of recommendations regarding fencing details and its extent.

539. In response to the British Horse Society (South-West), the applicant amended the proposed working scheme to introduce post and rail fencing as a safety measure on the boundaries of Silt Pond 1, Silt Pond 2 and the Clean Water Ponds in Gloucestershire where these border Bridleway Twyning ATW37. The applicant states that the type and height of the post and rail fencing would be consistent with the recommendations made by the British Horse Society (South-West), at a height of approximately 1.2 metres. Fencing adjacent to the access road, between the quarry access and plant site, would also be installed to a height of approximately 1.4 metres as recommended by the British Horse Society (South-West).

540. The Head of Planning and Transport Planning notes that the applicant has submitted details regarding the crossing of Twyning ATW37, including example signage, however, the acceptability or otherwise of these details (located in Gloucestershire) are a matter for Gloucestershire County Council to consider, however, a condition is recommended regarding protective fencing details.

541. The Ramblers Association and Malvern Hills District Footpath Society comment that they are content with the latest proposals for Bridleway Twyning ATW37 crossing of the haul road in Gloucestershire. They are, however, disappointed that an additional new public access route that they suggested has not been adopted by the applicant and included in the application submission. The applicant has noted this request but reiterates that at this time there are no proposals to provide additional public rights of way as part of the proposed site restoration. Whilst the Head of Planning and Transport Planning considers that this is a missed opportunity, it is noted there are no objections from the County Highways Officer, County Footpath Officer, British Horse Society (East and West Midland) and British Horse Society (South-West), and it is considered that refusal of planning permission on these grounds could not be justified in this instance.

542. In view of the above, the Head of Planning and Transport Planning is satisfied that the proposal would not have an unacceptable impact upon traffic, highway safety or public rights of way in Worcestershire, in accordance with Policies MLP 30 and MLP 39 of the adopted Worcestershire Minerals Local Plan, Policy WCS 8 of the adopted Worcestershire Waste Core Strategy, and Policy SWDP 4 of the adopted South Worcestershire Development Plan, subject to the imposition of appropriate conditions regarding access only be gained to and from the site from the proposed haul road; restricting commencement of the development unless planning permission has been obtained for access to and from the site via the proposed haul road and access onto the

A38 in Gloucestershire, internal roads to be maintained in a good condition and free of potholes or other defects, Geotechnical Assessment and associated inspection regime to ensure the integrity of the adjacent to the Motorway, site speed limit, the site not being open to the general public for commercial purposes, and protective fencing details.

Residential amenity (including noise, dust, air quality, vibration, lighting and health impacts)

543. Letters of representation have been received objecting to the proposal on the grounds of noise, vibrations, dust, air quality, and lighting impacts and adverse impacts upon health and residential amenity. Objections include concerns regarding noise from vehicle reversing beepers, operating hours would be intolerable, questions the robustness of the submitted Noise and Dust Assessments, and vibration impacts on local residents and adjacent Listed Building of Puck Cottage. Consider the control of dust at other mineral sites in the area is demonstrated not to be effective. The nearby glasshouse would be adversely impacted by dust, adversely effecting crop production. No data on wind directions, strength and dispersal of dust have been submitted. Doors and windows would have to be closed all summer due to adverse dust impacts. Sand and gravel have silica particles which once airborne can result in lung cancer, silicosis, bronchitis, COPD and other respiratory illnesses, with silicosis being a slow and painful killer.

544. Ripple Parish Council object to the proposal stating that proposals should not adversely affect the health and welfare of local residents and businesses and recreational facilities and fully comply with planning statements. Ripple Parish Council cannot see how these criteria would be met. The Parish Council also object on the grounds of adverse air quality, dust, noise and vibration impacts and request that Worcestershire County Council and / or Gloucestershire County Council carry out their own independent analysis of the applicant's noise reports. If planning permission is granted the Parish Council recommend the imposition of conditions limiting working hours between 07:00 to 18:00 Mondays to Fridays, with no working on weekends, or Bank Holidays.

545. Twyning Parish Council also objects on the grounds of adverse noise and dust impacts, stating that the submitted Dust Management Plan does not include any size distribution for the sand to be quarried and portrays the dust issue as trivial as it deliberately scopes out any analysis of the fine dust pollution risk. There are health implications here to local residents as well as damage to a Grade II listed building's thatched roof and also potentially devastating effects on local businesses. The applicant shows sand and gravel being quarried from under the bunds without any noise attenuation means whatsoever, this should be prevented by a planning condition should the application be approved.

546. Longdon, Queenhill and Holdfast Parish Council object to the proposal, stating that the future risk of air pollution from quarry dust has not been robustly researched in the application. Tewkesbury Town Council note the concerns raised by local residents with respect to dust and potential health impact.

547. Tewkesbury Town Council notes the concerns of local residents in relation to adverse impacts on air quality as a result of emissions from HGVs.

548. Policy MLP 28: 'Amenity' of the adopted Worcestershire Minerals Local Plan states that *"planning permission will be granted where it is demonstrated that the proposed mineral development, including associated transport, will not give rise to unacceptable adverse effects on amenity or health and well-being. A level of technical assessment appropriate to the proposed development will be required to demonstrate that, throughout its lifetime and taking into account the cumulative effects of multiple impacts from the site and/or a number of sites in the locality, the proposed development will not cause unacceptable harm to sensitive receptors from: a) dust; b) odour; c) noise and vibration; d) light; e) visual impacts; and / or contamination"*.

549. Policy MLP 29: 'Air Quality' of the adopted Worcestershire Minerals Local Plan states *"planning permission will be granted where it is demonstrated that the proposed mineral development, including associated transport, will not give rise to unacceptable adverse effects on air quality, and will help secure net improvements in overall air quality where possible..."*.

550. Policy WCS 14: 'Amenity' of the adopted Worcestershire Waste Core Strategy sets out, amongst other factors, that *"relevant assessments should be undertaken to demonstrate that the proposals will not have unacceptable adverse impacts on amenity or health"*.

551. Policy SWDP 31: 'Pollution and Land Instability' of the adopted South Worcestershire Development Plan sets out, amongst other factors, that *"A. Development proposals must be designed in order to avoid any significant adverse impacts from pollution, including cumulative ones, on any of the following:*

- *Human health and wellbeing.*
- *Biodiversity.*
- *The water environment.*
- *The effective operation of neighbouring land uses.*
- *An Air Quality Management Area (AQMA)"*

552. Paragraph 186 of the NPPF states that *"planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement..."*.

553. Paragraph 187 of the NPPF advises that *"planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established"*.

554. With specific regard to minerals, paragraph 211 of the NPPF states that *"when determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy. In considering proposals for mineral extraction, minerals planning authorities should:...b) ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health*

or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality; c) ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive properties...”.

555. The Noise Policy Statement for England was published in March 2010 and includes an Explanatory Note. The aim of the document is to *“provide clarity regarding current policies and practices to enable noise management decisions to be made within the wider context, at the most appropriate level, in a cost-effective manner and in a timely fashion”*. It sets 3 aims, which are:

556. *“Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:*

- *avoid significant adverse impacts on health and quality of life*
- *mitigate and minimise adverse impacts on health and quality of life; and*
- *where possible, contribute to the improvement of health and quality of life”*.

557. The application was accompanied by an ES, Noise and Vibration Impact Assessment, Air Quality Assessment, Dust and Air Quality Assessment, and Noise, Vibration and Dust Management Plans.

558. The proposed development has the potential for noise generation through on-site activities such as soil stripping, the extraction of sand and gravel, tipping of inert waste material and transportation of ‘as dug’ sand and gravel, and internal traffic movements. Mineral processing operations can also typically result in noise emanating from processing plant being detected off-site, when plant and machinery are operational. Off-site noise generated by traffic movements associated with the mineral operations have the potential for impact on roadside receptors.

559. ‘The Site’ section of this report sets out the nearest residential properties to the proposed development. The applicant is seeking to operate the site between 07:00 to 18:00 hours Mondays to Fridays, inclusive and 07:00 to 13:00 on Saturdays, with no working on Sundays, Bank or Public Holidays.

560. The PPG is the most up to date Government Guidance relating to noise emissions associated with mineral extraction. It recommends noise levels for normal daytime operations (07:00 to 19:00 hours) should not exceed 55dB(A) LAeq, 1h (free field). There is also a higher limit of up to 70dB(A) LAeq 1h (free field) at specified noise sensitive properties for noisier, but temporary operations, such as soil stripping, the construction and removal of baffle mounds, soil storage mounds and spoil heaps, construction of new permanent landforms and aspects of site road construction and maintenance, but for only up to 8 weeks a year. This is to facilitate essential site preparation and restoration work and construction of baffle mounds where it is clear that this would bring longer-term environmental benefits to the site or its environs (Paragraph Reference IDs: 27-021-20140306 and 27-022-20140306).

561. The Noise and Vibration Impact Assessment assesses the noise impact of the proposal (worst-case scenario) at the nearest sensitive receptors in terms of

temporary operations and also normal day to day operations to determine the highest likely noise levels.

562. The nearest sensitive receptors identified within the Assessment include:

- The nearest property to the north of the site on the opposite side of the M50 Motorway and on the south-west edge of the village of Ripple is Silvermead, located off Bow Lane
- Bow Farm is located within the eastern area of the site and is owned by the applicant and tenanted as a working farm
- Residential properties just east of the development off Bow Lane include Puck Cottage, Bow Cottage, Bowfields, Threshing Bow and The Bow
- Bowbridge Cottage, Scarecrow Stables and Dadsley Cottage are located east of the site off Puckrup Lane with Puckrup Hall and other properties located further to the east off Puckrup Lane
- Fairfield Bungalow is located east of the extraction area and adjacent to the A38 and the proposed access road to the processing plant site. This property is owned by the applicant
- Located south-east of the site are the properties associated with Twyning Farm, Owls End and Redpools Farm
- Properties south-west of the site at closest approach include those adjacent to Windmill Tump and Bushley Green
- Nearest receptors west of the site on the western bank of the River Severn, include The Stalls, Bredon School and Church End Farm
- Far End / Church End Nursery which are the nearest receptors to the processing plant site

563. The Assessment considers that the peak noise events would occur during the following periods:

- During temporary activities to remove topsoil, overburden and construction of soil bunds when at the closest approach to receptors east of the proposal
- During Phases 3 to 4 and 7 to 8 mineral excavation northern and central areas of the application site when at the closest approach to Bow Farm and properties east of the site

564. Proposed noise mitigation for control of the above periods of activity would require the construction of soil noise attenuation bunds along the eastern boundary of the site including the boundary around Bow Farm. Further proposed mitigation measures include:

- Mobile plant being fitted with broadband type reverse alarms to minimise any tonal noise characteristics

- Any associated water pumps used at site placed as far as is practicable from noise sensitive receptors. If pumps are on high ground or within 100 metres of noise sensitive receptors, they should be fitted with an acoustic screen or enclosure to minimise noise levels

565. In addition to the above mitigation measures, the submitted Noise Management Plan outlines a range of example mitigation measure which could be implemented including regular servicing of plant and equipment, fitting all vehicles and plant with effective silencers, use of white noise reversing alarms on all mobile plant rather than tonal 'beeper' type reversing alarm, limiting drop heights, restricting working hours, appointment of a community liaison officer, and use of a one-way system.

566. The Assessment concludes that the noise levels are predicted to achieve the required noise limits set by relevant guidance and standards and would not exceed the maximum noise limit or the aim of background noise +10dB(A) for the site lifetime. The introduction of appropriate soil screening bunds would assist in reducing noise levels to achieve the required noise levels. The Assessment considers that overall, there would be a negligible impact magnitude in terms of noise. In addition, no significant change in road traffic noise onto the local road network is predicted, with impacts shown to be between negligible to slight impact magnitude and neutral to minor impact significance.

567. The results of the Assessment are set out below and include a recommended site noise limit in relation to each receptor. This demonstrates that noise levels as a result of the proposal would be well below the maximum noise limit of 55 LAeq, 1 Hour dB for normal daytime operations and 70 LAeq, 1 Hour for temporary operations, as set out in the Government's PPG. The Head of Planning and Transport Planning recommends that should planning permission be granted conditions are imposed setting maximum noise limits are the nearest sensitive receptors, and associated monitoring.

Table 1: Cumulative effects of mineral extraction and processing plant (normal daytime operations)

Receptor	Range of likely noise contribution from activities LAeq 1 Hour dB	Maximum Noise Criteria LAeq 1 Hour dB
Silvermead (North)	38-43	55
Bow Farm	46-53	54
Puck Cottage, Bow Cottage, Bowfields, Threshing Bow, The Bow (East)	45-52	54
Bowbridge Cottage, Scarecrow Stables, Dadsley Cottage (East)	49-51	54
Puckrup Lane (Puckrup Hall)	50-51	53
Fairfield Bungalow	50-51	55
Twyning Farms and Owls End (South-East)	45-49	54
Redpools Farm (South)	45-47	55

Windmill Tump and Bushley Green (South-West)	39-44	53
The Stall, Bredon School, and Church End Farm (West)	39-42	54
Far End / Church End Nursery	47-49	55

Table 2: Soil strip and construction boundary screening measures (temporary operations)

Receptor	Range of likely noise contribution from activities LAeq 1 Hour dB	Maximum Noise Criteria LAeq 1 Hour dB
Silvermead (North)	35-41	70
Bow Farm	44-61	70
Puck Cottage, Bow Cottage, Bowfields, Threshing Bow, The Bow (East)	43-57	70
Bowbridge Cottage, Scarecrow Stables, Dadsley Cottage (East)	41-48	70
Puckrup Lane (Puckrup Hall)	35-43	70
Fairfield Bungalow	34-35	70
Twyning Farms and Owls End (South-East)	31-42	70
Redpools Farm (South)	34-41	70
Windmill Tump and Bushley Green (South-West)	32-40	70
The Stall, Bredon School, and Church End Farm (West)	33-39	70
Far End / Church End Nursery	33-38	70

568. In response to the letters of representation objecting on the grounds of adverse noise impacts to Puckrup Hall Hotel and Golf Course, the applicant states that this is a recreational area, rather than a noise-sensitive property as defined by the PPG. The use of the golf course is also temporary and transitional by its nature as members would constantly be moving around the course. This receptor area is, therefore, much less sensitive than the hotel buildings and immediate amenity around the hotel. Notwithstanding this, the noise levels would be within acceptable noise levels, complying with the PPG and BS8233:2014 guidance levels for external garden areas around the hotel for protection of amenity.

569. Local residents have objected that Gardeners Cottage and other residential properties on the north-eastern edge of the golf course have been ignored in the submitted Noise and Vibration Impact Assessment. Twyning Parish Council have also raised similar concerns in relation to Hillview Lakes fishing complex and Tewkesbury

Riding School located off Cherry Orchard Lane and other sensitive sites along Page's Lane. In response, the applicant has clarified that the Assessment takes the approach of assessing the closest receptors to the development as these would be subject to the greatest impact, as noise levels would be higher. The Assessment takes this approach and receptors that are at similar or greater distance from the activity would be subject to similar or lower impacts and, therefore, it is not necessary to predict noise at every dwelling in the area. The applicant also notes that noise contour line maps within the Assessment provide indicative levels at other locations if they have not been specifically referenced within the Assessment.

570. In response to objections in relation to the noise measurements, the applicant has clarified that the noise levels stated within the Noise and Vibration Impact Assessment utilises empirical data from the consultant's technical library of similar plant, collected from an assessment of a variety of sand and gravel sites. The applicant states that the data is representative of similar (and typical) sand and gravel operations and is considered highly accurate. Added to this, the Assessment assumes a worst-case scenario ensuring the noise prediction model is robust.

571. In response to objections in relation to mineral extraction taking place underneath the proposed noise and visual screening bunds. The applicant has confirmed that mineral beneath the eastern screening bund would not be extracted. The Head of Planning and Transport Planning recommends the imposition of a condition to this effect.

572. In response to concerns regarding the use of vehicle reversing tonal 'bleep' alarms, the applicant states that all mobile plant would be fitted with 'white noise' reversing alarms. Not all HGVs visiting the site would be fitted with this type of alarm as some of the sites that the vehicles travel to and from only allow tonal 'beeper' type. However, health & safety requirements enforce the limitation of reversing on sites, as it seen as an activity having a potential risk of accident. The collections area would therefore have a one-way system, so vehicles are unlikely to need to reverse. The Head of Planning and Transport Planning recommends the imposition of a condition requiring all mobile plant and machinery to be fitted with white noise reversing alarms.

573. With regard to tranquillity, paragraph of 185 of the NPPF states "*planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:...b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason*".

574. Impacts to tranquillity were assessment with the LVIA Addendum, which states that it is anticipated that the greatest potential effects on tranquillity would be experienced in areas within the immediate vicinity of the proposed processing plant site in Gloucestershire. The embedded mitigation measures associated with the processing plant site include grassed overburden bunds and topsoil bunds. These would assist in limiting adverse effects on tranquillity of vehicular movements within the processing plant site for receptors using the public rights of way on the lower ground to the west adjacent to the River Severn floodplain including Bridleway ATW37, Footpaths ZTW49 and RP-550. Receptors using these public rights of way

would already experience some reduced tranquillity levels from the movement of traffic along the M50 Motorway to the north. Therefore, overall, it is predicted that the proposed operations would result only in an intermittent minor adverse temporary effect on tranquillity for receptors to the south of the site including the residential property of Far End. For receptors on the higher ground to the west and south-west of the site in the vicinity of Bredon School on the western bank of the River Severn, it is anticipated that there would be a negligible to minor adverse temporary effect of significance on tranquillity due to the intervening distance and the existing presence of noise from traffic on the M50 Motorway.

575. With regard to vibration impacts, the Noise and Vibration Impact Assessment states that sand and gravel quarries use direct extraction methods using mobile plant rather than blasting techniques as a means of surface mineral extraction. Therefore, they do not normally generate levels of vibration which are perceptible by occupants of residential property unless the plant is working within separation distances of approximately 20 to 25 metres, which would not be the case in this instance.

576. The highest levels of vibration generated by plant is likely to be the use of bulldozers and the loading of HGVs or dump trucks. The Assessment states that even at the closest approach to existing residential properties, the likely levels of ground-borne vibration would be below perceptible levels of vibration (i.e., 0.3mm/sec is said to be the level below which vibration is imperceptible) at all receptors. The vibration impacts in respect of neighbouring properties from site machinery is anticipated to be 0.1mm/sec vibration levels. The Assessment states for cosmetic damage to occur, vibration levels would need to reach levels of around 5mm/sec. In view of this, the Assessment considers that vibration levels from mobile plant and offloading of vehicles based on the closest approach to nearest sensitive receptors would be well within acceptable limits and would have a negligible impact.

577. With specific reference to vibration impacts upon the Grade II Listed Building of Puck Cottage, the Assessment states that the closest likely stand-off distance from Puck Cottage is approximately 50 metres. A maximum vibration level of 0.1mm/sec is anticipated at Puck Cottage. The Assessment considers that the long-term effects on Puck Cottage (or any other residential dwelling) from vibration would be insignificant based on the type of plant that would be used at the site and separation distance. Furthermore, vibratory sources would be temporary in nature at the closest approaches to sensitive buildings. Empirical data obtained from typical plant used at sand and gravel quarries shows no significant vibration would be likely to occur.

578. Case studies demonstrate levels of vibration up to 3mm/sec are safe and ensure protection of heritage assets against cosmetic damage. There is no known evidence of likely vibration damage to heritage assets occurring from the operation of mobile or fixed plant at the relevant separation distances, such as that used at a typical sand and gravel quarry. The Assessment concludes that there would be a negligible impact from vibratory sources at Puck Cottage. The Assessment also states that monitoring of vibration can be undertaken at site, to show that the vibration levels at relevant distance are insignificant. A condition is recommended to this effect.

579. The applicant also notes that vibration levels from existing vehicles using the public highway running past Puck Cottage at such close proximity (i.e., 1 to 2 metres distance) have been shown by studies by the applicant's Noise and Vibration Consultant to range between 0.2mm/sec to 0.5mm/sec. This is higher than would be

expected from the type of plant proposed to be used at the application development site.

580. With regard to vibration impacts associated with the movement of HGVs, the results of seismograph monitoring show that based on a distance of 2 metres from the kerbside of the road during HGV movements the maximum levels of vibration recorded ranged between 0.2mm/s to 0.5mm/s. The applicant states that this level of vibration is very low and experience has shown that according to BS6472: 2008, even when properties are at this distance, there is normally a 'low probability of adverse comment' over the operating period indicating that nuisance conditions are unlikely. In view of the separation distance to noise sensitive receptors, the Assessment concludes that vibration levels associated with HGV movements would be imperceptible and, therefore, produce a negligible impact and would have a neutral impact.

581. With regard to dust impacts, the IAQM: 'Guidance on the Assessment of Mineral Dust Impacts for Planning' (2016) states that *"from the experience of the Working Group, adverse dust impacts from sand and gravel sites are uncommon beyond 250 metres. In the absence of other information, it is commonly accepted that the greatest impacts would be within 100 metres of a source and this can include both large (>30 µm) and small dust particles. The greatest potential for high rates of dust deposition and elevated PM10 concentrations occurs within this distance. Intermediate-sized particles (10 to 30 µm) may travel up to 400 metres, with occasional elevated levels of dust deposition and PM10 possible. Particles less than 10µm have the potential to persist beyond 400 metres, but with minimal significance due to dispersion"*. This guidance goes on to state the *"type of material being extracted and processed can have a significant influence on potential emissions. Sand and gravel deposits may possess an inherently high moisture content, which can cause particles to adhere and thereby affords a high degree of natural mitigation. However, this does not negate the potential for dust emissions from this material if it dries out, especially during high wind conditions"*.

582. The Dust and Air Quality Assessment assesses the worst-case scenario of dust impact risk and magnitude of effect at the nearest sensitive receptors within 250 metres of the proposal, this includes Puck Cottage, The Threshing Bow, Bow Cottage, Bowfields, Bow Farm, Dadsley Cottage, Fairfields, Far End, Sion House, A38 Properties, Church End Nursery, Puckrup Hall Hotel, and Puckrup Golf Course.

583. The Dust and Air Quality Assessment concludes that receptors may experience up to a moderate adverse effect from the proposed quarry. The highest magnitude of dust effects are predicted to be at Puck Cottage, Bowfields and Bow Farm House during soil stripping and bund formation, which would be short-term activities. The impacts for this stage of the development are, therefore, considered to be transient. The only other assessed receptor to potentially receive up to a moderate adverse effect is Fairfield (which is under the control of the applicant).

584. Many of the receptors along Bow Lane are predicted to receive up to slight adverse effects from activities within the mineral extraction area, including soil and overburden removal, storage and reinstatement, mineral extraction and handling, and wind scouring of exposed surfaces and stockpiles. The Assessment states that extra precautions should, therefore, be taken to ensure that dust emissions are minimised near the eastern boundary of the extraction area, and any workings within 100 metres

of receptors should be undertaken with the utmost due diligence. Subject to the implementation of standard mitigation measures, which includes wetting down freshly tipped loads of dry and friable material in dry and windy weather conditions; keeping drop heights to a minimum; minimising working of soils in very dry and windy conditions; use of water sprays and bowser; soil storage bunds to be stabilised by seeding; limiting height of stockpiles; sheeting of loaded HGVs; HGVs exiting the site to pass through the wheel wash; and limiting speed limits across the site, the Assessment concludes that the overall impact of the proposal is considered to be not significant.

585. Letters of representation have been received objecting to the proposal on the grounds of adverse dust impacts to Church End Nursery. In relation to this receptor the Assessment predicts a negligible magnitude of dust effects. The applicant states that this is primarily due to the very low frequency of potentially dusty winds towards the Nursery from the site (less than 3.5% of all winds from a five-year average) and the distance from the main processing plant site to the Nursery façade. Whilst the site access to the A38 would pass within approximately 60 metres of the northern façade of the Nursery, it can again be noted that a very low proportion of potentially dusty winds speeds are towards the south, and all of the routes between the site access and the processing plant site would be constructed from concrete, and the proposed mitigation measures within the Dust Management Plan implemented.

586. Letters of representation have also been received objecting to the proposal on the grounds of adverse dust impacts to Puckrup Hall Hotel and Golf Course. As a worst-case scenario Puckrup Hall Hotel and parts of the associated golf course could experience up to slight adverse effects from on-site haulage. All other proposed activities including mineral extraction and areas of the quarry are predicted to have a negligible effect on this receptor.

587. Twynning Parish Council also consider that the proposal would have a devastating impact in terms of dust impacts upon Hillview Lakes fishing complex, Tewkesbury Riding School and other sensitive sites along Page's Lane. The Head of Planning and Transport Planning notes that the Assessment considered the impact of dust emissions upon the receptors which are considered to have the highest potential for dust impacts. The proposal did consider the impact upon the nearest sensitive receptor along Pages' Lane, (Sion House) and identified the impact would be negligible. Hillview Lakes fishing complex and Tewkesbury Riding School located along Cherry Orchard Lane, are situated approximately 325 metres north-east of the application site (access) and approximately 1.1 kilometre east of the mineral extraction area, which is a significant greater distance than the receptors assessed within the Dust and Air Quality Assessment. In view of this, the Head of Planning and Transport Planning considers that due to the distance that the impact of dust on these receptors would not be significant.

588. With regard to air quality, the Air Quality Assessment states that the key pollutants associated with the operational phase of the proposed development would be road traffic emissions including Nitrogen Dioxide (NO₂) and Particulate Matter (PM_{2.5} and PM₁₀).

589. The applicant states that the DEFRA 'UK Air – 'Background Mapping data for local authorities' predicted background concentrations for the earliest year of operation for the grid squares of the proposed development were 11.4 and 7.4 µg/m³

for PM10 and PM2.5 respectively. In accordance with the IAQM guidance, when background PM10 concentrations are below 17 µg/m³ it is considered unlikely that the proposed quarry process contribution would lead to an exceedance of the annual mean objective.

590. The impacts of NO₂, PM10 and PM2.5 from HGV traffic generated by the proposed quarry has been assessed by the applicant. The Assessment predicts that there would be a slight increase in NO₂ concentrations at all of the modelled receptors as a result of the proposal. The largest increase in NO₂ concentrations would be at Fairfield, with a rise of 0.36 µg/m³, which is less than 1% of the Air Quality Assessment Level. This small increase would result in negligible impact at this modelled receptor. The Assessment predicts that there would be a very slight increase in PM10 and PM2.5 concentrations at all of the modelled receptors as a result of the proposal. The percentage change in concentrations relative to the Air Quality Assessment Level is less than 0.5%, which is considered imperceptible. This change results in a negligible impact at all modelled receptors. The Assessment goes on to state that this demonstrates that the annual mean and 1 hour mean NO₂ Air Quality Objectives are forecast to be met at the façade of all existing receptors. The PM10 and PM2.5 concentrations are also forecast to meet their respective long and short-term Air Quality Objectives by a considerable margin for all modelled receptors. In view of this, the Assessment states no further air quality mitigation measures are recommended for the operational phase of the proposed scheme.

591. In response to concerns noted by Tewkesbury Town Council regarding reduction in air quality due to intensification of HGVs on the local highway network, the applicant clarified that all roads which triggered the HGV criteria for further assessment were scoped into the Air Quality Assessment using dispersion modelling. Where required in the model, speeds were slowed at all traffic lights and other junctions. The applicant confirms that the worst-case receptors were chosen to assess the greatest change in pollution concentrations. Furthermore, the dispersion model outputs are the largest across three meteorological years, with the worst-case meteorological conditions being accounted for, as far as reasonably possible. The applicant states that, therefore, the number of HGVs and potential slowing down / accelerating at all junctions and traffic lights within the modelled area has been taken into account in the Air Quality Assessment.

592. Worcestershire Regulatory Services (Noise, Dust and Vibration) have been consulted and raise no objections to the proposal, subject to the imposition of conditions restricting the operating hours and requiring an updated Noise Management Plan to include a scheme for noise monitoring. They state that the submitted Noise Impact Assessment appears satisfactory and predicts that noise from the proposed activities would be compliant with the relevant guidance. The submitted Dust Assessment appears satisfactory and should minimise dust impacts due to the proposed good site management measures. With regard to the vibration, they note that the predicted worst case vibrational impact at Puck Cottage is 0.1mm/s PPV, which is within the Worcestershire Regulatory Services' guidance value of 1mm/s PPV for occupied residential dwellings and, therefore, considered acceptable in terms of vibration nuisance.

593. Worcestershire Regulatory Services also state that they have reviewed public comments, in particular the comments from local residents' groups, and consider that the applicant's responses to the Regulation 25 Requests (further information) relating

to noise appear satisfactory and confirm that all operational noise levels would be in line with the relevant guidance. They understand that the sound pressure levels used within the Noise Assessment are actual measured levels as opposed to predicted sound power levels based on the BS5228 reference tables and, therefore, should be more accurate. In terms of the receptor positions chosen these appear to have been addressed within the applicant's responses to the Regulation 25 Request (further information).

594. In relation to noise impacting Church End Nurseries and Puck Cottage, Worcestershire Regulatory Services have reviewed the submitted further information and the applicant's response and continue to raise no objections on noise grounds.

595. In relation to noise impacting Puckrup Hall Hotel and Golf Course, Worcestershire Regulatory Services also consider that the response from the applicant is acceptable and the proposed additional noise barriers around the proposed processing / concrete batching plant area would further reduce noise impacting these areas and should be implemented.

596. Worcestershire Regulatory Services (Contaminated Land and Air Quality) have no objections in respect to contaminated or air quality, subject to the imposition of a condition requiring continuous dust monitoring. They state that the Air Quality Assessment is satisfactory and is in line with the relevant policy and guidance. They also state that the submitted Dust Management Plan appears satisfactory.

597. The Head of Planning and Transport Planning notes that the applicant has confirmed that the continuous dust monitoring referenced by Worcestershire Regulatory Services would be real-time PM10 and PM2.5 monitoring, where alerts are automatically sent to site if specified thresholds are breached.

598. Worcestershire Regulatory Services state that they have reviewed public comments, in particular the comments from local residents' groups. With respect to PM2.5 (particles that have diameter of 2.5 microns or less), the guidance (IAQM: 'Guidance on the Assessment of Mineral Dust Impacts for Planning', May 2016(v1.1)) states that: "*the other potential air quality impact is the increase in ambient suspended PM concentrations local to the site. As noted earlier, the PM10 fraction is relevant to health outcomes. For quarries most of this suspended dust would be in the coarse sub-fraction (PM2.5-10), rather than in the fine (PM2.5) fraction*". Any PM2.5 levels in the area could not readily be attributed to the quarry and are likely to be transboundary or associated with agricultural activities and the M50 Motorway.

599. With regards to the statement from a local residents' that "*the applicant notes that current background levels of harmful 10 micron particles are already at over 30% of the permissible levels so again it is inconceivable that the levels would not be exceeded when mining starts*". The guidance states that "*if the long-term background PM10 concentration is less than 17µg/m³ there is little risk that the Process Contribution would lead to an exceedance of the annual-mean objective*" and based on the background PM10 concentration data for the opening operational year it is considered unlikely that the annual-mean objective for PM10 would be exceeded.

600. The applicant states that a limited amount of artificial lighting would be required within the proposed processing plant site area in Gloucestershire for use only during the darker mornings and evenings in winter months. Lighting would be fixed to the

processing plant and the external façade of the site offices. In all instances, the lighting units would be of modern LED design, orientated towards the ground to minimise light-spill and powered by the on-site generator, which would be housed in an acoustically treated container. No fixed lighting is proposed within the proposed extraction areas in Worcestershire, with the only lighting being headlights on mobile plant. The Head of Planning and Transport Planning considers that should planning permission be granted a condition should be imposed restricting fixed lighting within the application site within Worcestershire.

601. The Head of Planning and Transport Planning considers that due to the nature of the proposal (namely there would be no infilling of raw refuse or putrescible waste material) it would not result in adverse odour impacts.

602. Given the applicant is proposing to restore the site by importing inert waste materials, the proposed development would require an Environmental Permit from the Environment Agency. It is noted that paragraph 188 of the NPPF states that *"the focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively"*. Paragraph Reference ID: 27-012-20140306 of the PPG elaborates on this matter, stating that *"the planning and other regulatory regimes are separate but complementary. The planning system controls the development and use of land in the public interest...this includes ensuring that new development is appropriate for its location – taking account of the effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution. In doing so the focus of the planning system should be on whether the development itself is an acceptable use of the land, and the impacts of those uses, rather than any control processes, health and safety issues or emissions themselves where these are subject to approval under regimes. Mineral planning authorities should assume that these non-planning regimes will operate effectively"*.

603. All materials to be imported will be inert restoration materials suitable for direct placement without any pre-treatment required (in line with the Environment Agency's Position Statement on the CL:AIRE (Contaminated Land: Applications in Real Environments) 'Definition of Waste: Development Industry Code of Practice'.

604. In order to ensure all loads meet these criteria they would be visually and olfactory examined when brought onto the site prior to being placed. Imported material would be subject to Waste Acceptance and a company inert tipping protocol. The material would be directly sourced and would not have passed through any waste transfer (thereby reducing any prospect of contamination). Combined with the appropriate Environment Agency Environmental Permit and subsequent monitoring / reporting requirements, this would ensure that the site is restored using inert material only with no prospect of pollutant risks.

605. The Environment Agency have made no adverse comments in respect to air quality, noise, dust, vibration and residential amenity. The Environment Agency confirm that restoration of the site by infilling would be controlled by an Environmental Permit. The Environmental Permit would require the site to have an adequate liner with an appropriate monitoring network to demonstrate compliance. The Permit would

also control emissions to land air and water (e.g., noise and dust emissions). The Environment Agency also comment that infilling material should be sorted at source prior to being imported to the site and they would need to be appropriately screened and Waste Acceptance Criteria (WAC) tested to make sure that they are compliant and suitable for use. The Permit would detail the inert materials which can be landfilled at the site.

606. With regard to health and wellbeing impacts, the PPG states that *“it is helpful if the Director of Public Health is consulted on any planning applications (including at the pre-application stage) that are likely to have a significant impact on the health and wellbeing of the local population or particular groups within it. This would allow them to work together on any necessary mitigation measures. A health impact assessment is a useful tool to use where there are expected to be significant impacts”* (Paragraph Reference ID: 53-005-20190722).

607. The applicant submitted a Health Impact Assessment (HIA) Screening which concluded that a bespoke full HIA is not required. The submitted ES also includes a Health and Wellbeing Chapter, which concluded that through implementation of the mitigation and attenuation measures outlined in the ES, it considered that the proposed development would not result in any significant adverse risk to the health and well-being of sensitive receptors within proximity of the development site. For this reason, it considered that no further assessment of health impacts is warranted. Notwithstanding this, the County Public Health Practitioner originally commented that they had no objections to the proposal but would welcome a full HIA.

608. In response, the applicant undertook and submitted a full HIA, which states that the proposal could be achieved without any significant adverse impact upon the environment or residential amenity. The HIA states that the proposed temporary mineral extraction would contribute to the economic prosperity both directly (through local employment) and indirectly (in the supply of a valuable resource which facilitates development in the wider region). Longer-term, the development would achieve significant environmental benefits through delivery of in excess of 25 hectares of biodiversity and habitat gain and increased flood storage capacity within the local area. The HIA concludes that there are no significant or demonstrable risks presented to the health and well-being of the local population.

609. In response the County Public Health Practitioner stated that the applicant has submitted a short HIA using the Planning for Health in South Worcestershire Supplementary Planning Document template, and they are aware that this may have been interpreted as covering what is required. However, given the nature of the proposal they would have expected a stand-alone document addressing health and wellbeing and not integrated in other documents. However, taking into account the responses from the UK Health Security Agency, Worcestershire Regulatory Services and the submitted ES which address matters pertaining to health and wellbeing such as noise, dust and air quality. The County Public Health Practitioner understands the need to balance health and wellbeing with the economy and recognise that the risk of adverse effects has been recognised by the applicant and the proposal includes mitigation measures. In view of this, subject to the mitigation measures within the ES being implemented, the County Public Health Practitioner raises no objections to the proposal.

610. The UK Health Security Agency (formerly Public Health England) comments that based on the information submitted, they have no significant concerns regarding the risk to health of the local population from this proposed development, providing that the applicant takes all appropriate measures to prevent or control pollution, in accordance with the relevant sector technical guidance or industry best practice.

611. In relation to objections from local residents regarding silicosis, the Head of Planning and Transport Planning notes that the HSE guidance states that *“one of the health risks from working in the quarry industry is that of exposure to fine dust containing crystalline silica (otherwise known as quartz). Quartz is found in almost all kinds of rock, sands, clays, shale and gravel. Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as “silicosis”. It usually takes a number of years of regular daily exposure before there is a risk of developing silicosis. Silicosis is a disease that has only been seen in workers from industries where there is a significant exposure to silica dust, such as in quarries, foundries, the potteries etc. No cases of silicosis have been documented among members of the general public in Great Britain, indicating that environmental exposures to silica dust are not sufficiently high to cause this occupational disease”*.

612. An alternative phasing method for when mineral extraction draws closer to residential properties on Bow Lane was suggested in a letter of representation. In response the applicant states that *“it should be noted that the receipt of this consultation response led to direct discussion between the applicant and resident. The suggested approach of working the phases in closest proximity to residential properties only during the winter months is entirely sensible and one that is applied by the applicant at all sites, whenever practical. Indeed, this flexible approach is evident within the submitted phasing scheme, which aims to work those areas prone to flooding in the summer and those outside of the floodplain during the winter. Of course, there are a number of factors that can disrupt all best efforts to minimise disruption to neighbouring properties (e.g., climatic conditions, flooding). For this reason, there are no proposals to alter the alignment of the phasing scheme, however residents can be assured that all reasonable and commercially viable methods would be employed to limit, as far as practical, the disruption to neighbouring properties. Added to this, residents would be supplied with a site contact, who would be available to advise on working procedures, plans and address any issues arising from site operations”*.

613. Letters of representation have been received stating that prior to the adoption of the Worcestershire Minerals Local Plan, a 200-metre buffer was required to protect residential properties. The Head of Planning and Transport Planning notes that Policy 2 and paragraphs 5.3 and 5.4 of the now superseded County of Hereford and Worcester Minerals Local Plan did set out a methodology against which new proposals for sand and gravel extraction not in an identified Preferred Area were to be assessed. If the area was subject to a primary constraint (Stage 1) or more than one secondary constraint (Stage 2), planning permission would not normally be granted unless there were exceptional circumstances. A primary constraint did include *“a buffer strip of 200 metres from the boundary of a potential working area to the nearest main walls of the nearest property in a settlement group of 6 or more dwellings”*. However, the County of Hereford and Worcester Minerals Local Plan has been replaced by the adopted Worcestershire Minerals Local Plan, and therefore, no longer forms part of the Development Plan. The adopted Worcestershire Minerals Local Plan

does not operate a sieve test or impose a blanket ban on all development within primary constraints, for example within a buffer strip of 200 metres from the boundary of a potential working area to the nearest main walls of the nearest property in a settlement group of 6 or more dwellings. The NPPF also does not include a similar sieve test or buffer requirement.

614. Furthermore, the Head of Planning and Transport Planning notes that the Government's PPG specifically deals with the matter of 'separation distances / buffer zones' in relation to mineral extraction. The PPG states that "*separation distances / buffer zones may be appropriate in specific circumstances where it is clear that, based on site specific assessments and other forms of mitigation measures (such as working scheme design and landscaping) a certain distance is required between the boundary of the minerals extraction area and occupied residential property. Any proposed separation distance should be established on a site-specific basis and should be effective, properly justified, and reasonable. It should take into account:*

- *the nature of the mineral extraction activity;*
- *the need to avoid undue sterilisation of mineral resources;*
- *location and topography;*
- *the characteristics of the various environmental effects likely to arise; and*
- *the various mitigation measures that can be applied"* (Paragraph Reference ID: 27-018-20140306).

615. The Head of Planning and Transport Planning considers that no additional separation distances / buffer zones are required over and above that already proposed, given that the ES and associated assessments do not identify unacceptable impacts on residential amenity, and there are no objections to the development as proposed from the relevant technical consultees, including the Environment Agency, Worcestershire Regulatory Services, and The UK Health Security Agency. In view of this, it is considered that any additional separation distances / buffer zones would not be properly justified or reasonable in this instance.

616. In view of the above matters, the Head of Planning and Transport Planning considers that, subject to the imposition of appropriate conditions relating to operating hours, restricting permitted development rights, limiting the duration of the development, restricting lighting, extent of mineral extraction, phasing scheme, waste acceptance, construction of soil screening bund, an updated Noise Management Plan to include a scheme for noise monitoring, noise limits and monitoring, vibration and dust monitoring, carrying out the development in accordance with the Dust Management Plan, limiting height of stockpiles, all vehicles and plant being maintained in accordance with the manufacturers' specification, upward facing exhausts on plant and machinery, white noise reversing alarms on mobile plant and machinery, use of water bowser and spraying, maximum on site speed limit, internal roads to be maintained, and Community Liaison Group, that there would be no unacceptable adverse air pollution, noise, dust, vibration or lighting impacts on residential amenity or that of human health. The Head of Planning and Transport Planning considers that the proposal is in accordance with Policies MLP 28 and MLP 29 of the adopted Worcestershire Minerals Local Plan, Policy WCS 14 of the adopted Worcestershire Waste Core Strategy, and Policy SWDP 31 of the adopted South Worcestershire Development Plan.

Landscape character and appearance of the local area

617. Local residents object to the proposal on the grounds of adverse landscape character and visual impacts, including adverse visual impacts upon the local area including the Puckrup Hall Hotel and Golf Course, the proposed sight lines are misleading, proposed bunds would have a detrimental visual impact, no control of retention of vegetation outside the application site and request height of proposed buildings is conditioned.

618. Ripple Parish Council are concerned about the loss of recreational amenity in relation to the public rights of way in the vicinity of the site, particularly views from the Severn Way and views from the east, as walkers would experience substantial adverse effects. Twyning Parish Council object to the proposal on the grounds of visual intrusion into the open landscape.

619. Policy MLP 33: 'Landscape' of the adopted Worcestershire Minerals Local Plan seeks to conserve and enhance the character and distinctiveness of the landscape.

620. Policy WCS 9: Environmental assets within the adopted Worcestershire Waste Core Strategy refers to considering the effect of the proposal on designated and non-designated heritage assets and their setting. Policy WCS 12: 'Local characteristics' of the adopted Worcestershire Waste Core Strategy refers to permitting waste management facilities where it is demonstrated that they contribute positively to character and quality of the local area. Policy WCS 14: 'Amenity' in the adopted Worcestershire Waste Core Strategy refers to considering visual intrusion.

621. Policy SWDP 21: 'Design' of the adopted South Worcestershire Development Plan sets out, amongst other elements, that "*development proposals must complement the character of the area*". Policy SWDP 23: 'The Cotswolds and Malvern Hills Areas of Outstanding Natural Beauty (AONB)' of the adopted South Worcestershire Development Plan sets out, that "*development that would have a detrimental impact on the natural beauty of an AONB...will not be permitted*". Policy SWDP 25: 'Landscape Character' of the adopted South Worcestershire Development Plan sets out, amongst other factors, that development proposals and their associated landscaping schemes must demonstrate that they are appropriate to, and integrate with, the character of the landscape setting and that a LVIA is required.

622. A LVIA accompanied the application submission. With regard to landscape character the Assessment states that proposed development would result in the loss of landscape features including arable farmland and internal field boundary hedgerows. Post-extraction, areas of woodland, scrub and wetland would be established, together with reinstatement of arable farmland as part of the restoration proposals. The Assessment considers that the overall magnitude of effect on landscape character would be low. The overall landscape sensitivity to proposed development is assessed as medium. The nature of effect is assessed as being adverse during the operational period and neutral in the long-term, reflecting a balance between a partial change in landscape characteristics (adverse) and nature conservation value (beneficial).

623. With regard to visual impacts, the Assessment states that the visual effects of advance tree planting, initial soil stripping, storage and construction of the mineral haul route would be highly localised. The soil storage screen bunds would be grassed and set behind the existing peripheral hedgerows. The bunds would be progressively removed, and the topsoil used to restore worked phases as extraction progresses

through the site. Those primarily affected would be users of Bridleway ATW37 moving south to north across the application site, and users of Bow Lane passing along the eastern boundary of the extraction site. The visual effects for these receptors would be moderate adverse visual effect. There would be some oblique and heavily filtered views of the pre-extraction phase from Footpath ZTW49, located to the south-west of the application site, running along the eastern bank of the River Severn. The Assessment considers that typically, the visual effects for these receptors would be minor adverse visual effect. The one exception to this is of receptors moving along the northernmost section of Bow Lane adjacent the application site, where locally fragmented hedgerow provides views of towards the application site. In this instance, the screening bund would present a temporary major adverse visual effect.

624. In view of this, the applicant is proposing that the external batter of the bund in this location (for approximately 220 metres in length) would have a gradient of 1:4 (rather than the originally proposed 1:2 gradient) to provide a less engineered profile. Furthermore, the existing hedgerow along the northern section of Bow Lane would be left to grow and subsequently managed at a minimum height of 2.5 metres. This would provide visual containment of the bund for receptors moving along this section of Bow Lane and would reduce the significance of effect on visual amenity.

625. The Assessment states that the greatest effects on visual amenity as a result of mineral extraction operations would generally be for receptors closest to the application site, namely users of Bridleway ATW37, which crosses the proposed haul road between the extraction area and processing plant area. The Assessment predicts that users of this bridleway would experience a substantial adverse visual effect. Receptors using Footpath RP-550, located on the eastern bank of the River Severn and Footpath BU-514, located on the western bank of the River Severn, would experience substantial adverse visual effects. However, such effects would be limited to the duration of the mineral extraction in flexible working areas.

626. The applicant anticipates that occupiers of the residential property of Far End would experience minor adverse visual effects during the operational phase of the proposed development. However, the visual effects would generally be related to views of the movement of plant and would, therefore, be intermittent and transitional. The eastern portion of the site would be visible in oblique, mid-range views, with filtered oblique views of the flexible working areas. There would be no visibility of the proposed main mineral extraction area due to the visual containment provided by deciduous woodland.

627. The Assessment states that major adverse visual effects would be experienced for motorists using Bow Lane, including from the M50 Motorway overbridge. However, views of the mineral extraction operations would be oblique and transient and generally limited to receptors moving north to south. Users of the section of Bridleway ATW37 in the vicinity of Redpools Farm to the south of the application site would experience major adverse visual effects as they move south to north towards the application site.

628. It is anticipated that moderate slight adverse visual effects would be experienced by users of Footpath RP-549 located to the north of the application, north of Ripple Lake, as users move north to south towards the application site. However, views are likely to reduce as the operational phase of the development moves southwards. Moderate slight adverse visual effects are likely to be experienced by receptors using

Footpath QH-523 located to the north-west of the application site, on the western bank of the River Severn.

629. The Assessment states that moderate slight adverse visual effects are likely to be experienced by receptors using Footpath ATW34, which passes through Puckrup Hall Hotel complex. From the section of this footpath within the Puckrup Hall Hotel complex, the Assessment states that the proposal is not visible due to intervening landform and vegetation along the western and eastern edges of the golf course. The application site would also not be visible due to intervening landform, hedgerows and trees from this footpath on the section between Bow Lane and Puckrup Hall Hotel complex. However, as users of this footpath approach the south-eastern edge of Puckrup Hall Hotel complex, at the eastern edge of site boundary (near the A38), users would have filtered views of the eastern extremities of the site including the Fairfield Cottage.

630. The Assessment states that moderate slight adverse visual effects are likely to be experienced by receptors using Footpath BH-501 and from Footpath BU-503 located on higher ground to the west of the application site, on the western bank of the River Severn adjacent to Bredon School (Pull Court). Views would be of plant operating in the flexible working areas. However, these would be intermittent, distant and heavily filtered views, and would form a very small portion of the wider panoramic view. Vehicular movements within the Phase 9 would be barely perceptible, at distance, and against the backdrop of the woodland.

631. The Assessment anticipates that a moderate visual effect would be experienced during the operational phase for receptors using Footpath ZTW49.

632. With regard to the visual impacts upon Puck Cottage, located to the eastern edge of Bow Lane, the Assessment states that there would be no intervisibility between the cottage and the application site owing to an area of established mixed woodland located immediately to the west of Bow Lane. This is considered in further details within the 'Historic environment' section of this report.

633. With regard to the visual impacts upon Bowbridge Cottage and Barn located on Puckrup Lane. The Assessment states that small blocks of established trees on the edge of Puckrup Lane prevent views of the site from the Cottage. As such there is no intervisibility between the cottage and the application site. This is considered in further details within the 'Historic environment' section of this report.

634. The Assessment states that the final restoration scheme would re-introduce many of the baseline characteristics of the application site which would feature in many views. Typically views into the application site from the north, south and east would show the restoration of the fields and internal hedgerows whilst the area of deciduous woodland which would have been planted at the pre-operational phase would be establishing to introduce a congruous element into the landscape. Whilst minor-moderate adverse visual effects may be experienced during the initial stages of the restoration phase, once newly planted hedgerows begin to establish, the effect would be of minor-negligible significance and slightly beneficial.

635. The visual impact of the proposed processing plant site is a matter for Gloucestershire County Council to consider, but it is noted that the applicant has submitted sight line cross sections from a range of sensitive receptors. These

demonstrate that the plant site would be significantly screened from a wide range of views due to a combination of topography, existing established vegetation and proposed mitigation measures such as soil bunds / fencing.

636. The County Landscape Officer has been consulted and raises no objections to the proposal, subject to the imposition of conditions regarding a tree protection and arboricultural methods, Soil Handling Strategy, Dust Management Plan, Noise Management Scheme, Water Management Scheme, biodiversity mitigation scheme, no external lighting to be installed in the part of the site in Worcestershire, phased restoration scheme, updated LEMP and a 10-year aftercare period. The County Landscape Officer also welcomes an interpretation signage for landscape / historic landscape.

637. In relation to the LEMP, the County Landscape Officer states that Table 5.1 does not include the new hedgerow management section H4. This is also referred to as a *proposed* hedgerow in paragraph 5.2. While these are minor errors, the County Landscape Officer recommends they are rectified by prior to commencement of development condition.

638. The County Landscape Officer states notwithstanding the above comment, the Restoration Plan and LEMP are sufficient in detail to deliver all measures and restoration aims.

639. Overall, the County Landscape Officer considers that most of the proposed workings would be relatively well-contained benefitting from the site topography and existing areas of woodland and mature hedgerows. For Worcestershire, Bow Farm is the main receptor where the greatest impact would be experienced, in addition to receptors traveling along the M50 Motorway, although with the latter the impact would be transient. The County Landscape Officer considers that the haul road and processing plant area would be largely screened in Worcestershire, again benefitting from the existing topography and established mature vegetation.

640. Malvern Hills District Council have commented in respect of landscape impacts, stating that a LVIA has been submitted in support of this planning application. It is understood that the proposed development would take place over a period of approximately 9 years and incorporates embedded mitigation measures designed during the iterative design process. Included amongst these is the retention of peripheral hedgerows, the formation of grassed bunds, the sequential extraction of the mineral followed by the immediate restoration of the worked areas and considering the appropriate siting of static plant at the lowest point of the site. The restoration phase would return the land to its baseline, agricultural condition whilst providing a net benefit in biodiversity. The District Council recommend that should planning permission be granted, conditions are imposed to control the phasing of both the extraction and restoration of the site. A condition is recommended to this effect.

641. Bredon Hill which forms part of the Cotswolds AONB National Landscape is located approximately 4.3 kilometres east of the application site, and approximately 5.2 kilometres east of the proposed extraction area. The Cotswolds Conservation Board have been consulted and wishes to make no comments on the application. In view of this, and due to the distance of the proposal from the Cotswolds AONB National Landscape, the Head of Planning and Transport Planning considers that the proposal would not have an adverse visual impact upon this AONB.

642. The visual impacts of the proposal upon the Scheduled Monument of Towbury Hill Camp is considered under the 'Historic environment' section of this report.

643. Impacts of the proposal upon veteran trees is considered within the 'Ecology, biodiversity and geodiversity' section of this report.

644. The Head of Planning and Transport Planning considers that should planning permission be granted, conditions should be imposed requiring the site to be restored within a set timescale, being carried out in accordance with the Soil Handling Strategy, design of screening bunds, phased working scheme, design of conveyors, boundary treatments, annual topographical surveys, detailed drainage scheme and management plan, restricting lighting, Noise, Vibration and Dust Management Plans and Monitoring Schemes, Biodiversity Mitigation Scheme, updated LEMP, being carried out in accordance with the Arboricultural Report, limiting the height of stockpiles, updated restoration scheme, aftercare scheme, 10 year aftercare period, Interpretation Strategy, and removing permitted development rights.

645. In view of the above and based on the advice of the County Landscape Officer, Malvern Hills District Council and the Cotswolds Conservation Board, the Head of Planning and Transport Planning considers that the proposed development would not have an unacceptable impact upon the character and appearance of the local area, including the Cotswolds AONB National Landscape and views from public rights of way, subject to the imposition of appropriate conditions. The Head of Planning and Transport Planning considers that the proposal is in accordance with Policy MLP 33 of the adopted Worcestershire Minerals Local Plan, Policies WCS 9, WCS 12 and WCS 14 of the adopted Worcestershire Waste Core Strategy, and Policies SWDP 23 and SWDP 25 of the adopted South Worcestershire Development Plan.

Historic environment

646. There are a number of Listed Buildings within the vicinity of the application site, as outlined within 'The Site' section of this report.

647. Letters of representation have also been received objecting to the proposal on heritage grounds, in particular adverse impacts upon heritage assets including Puck Cottage, Scheduled Monument of Towbury Hill Camp and Conservation Areas, adverse impact upon archaeology, and insufficient information submitted regarding heritage assets.

648. Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 imposes a general duty as respects to listed buildings in the exercise of planning functions. Subsection (1) provides that *"in considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses"*. Section 72 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 imposes a general duty as regards Conservation Areas in the exercise of planning function stating, *"in the exercise, with respect to any buildings or other land in a Conservation Area...special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area"*.

649. Policy MLP 32: 'Historic Environment' of the adopted Worcestershire Minerals Local Plan states that *"planning permission will be granted where it is demonstrated that the proposed mineral development will conserve and, where possible, enhance the historic environment..."*.

650. Policy WCS 9: 'Environmental assets' within the adopted Worcestershire Waste Core Strategy refers to considering the effect of the proposal on designated and non-designated heritage assets and their setting. Policy WCS 12: 'Local characteristics' of the adopted Worcestershire Waste Core Strategy refers to permitting waste management facilities where it is demonstrated that they contribute positively to character and quality of the local area.

651. Policy SWDP 6: 'Historic Environment' of the adopted South Worcestershire Development Plan relating to the historic environment states that *"development proposals should conserve and enhance heritage assets, including assets of potential archaeological interest, subject to the provisions of Policy SWDP 24. Their contribution to the character of the landscape or townscape should be protected in order to sustain the historic quality, sense of place, environmental quality and economic vibrancy of south Worcestershire. Development proposals will be supported where they conserve and enhance the significance of heritage assets, including their setting"*. Policy SWDP 24: 'Management of the Historic Environment' of the adopted South Worcestershire Development Plan in relation to management of the historic environment confirms that *"development proposals affecting heritage assets will be considered in accordance with the Framework, relevant legislation and published national and local guidance"*.

652. With regard to heritage assets, paragraph 195 of the NPPF states that *"local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal"*.

653. Paragraphs 199 and 200 of the NPPF states that *"when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance. Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of: ...a) grade II listed buildings... should be exceptional; b) assets of highest significance, notably schedule monuments...grade I and II* listed buildings...should be wholly exceptional"*.

654. Paragraph 201 of the NPPF states that *"where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss..."*.

655. There is no statutory definition of setting for the purposes of Section 66 (1) of the Listed Buildings Act. Annex 2 of the NPPF describes the setting of a heritage asset as *"the surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral"*. It goes on to describe significance for heritage policy, stating that this is *"the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting..."*.

656. The PPG at Paragraph Ref ID: 18a-013-20190723 states that *"the extent and importance of setting is often expressed by reference to visual relationship between the asset and the proposed development and associated visual / physical considerations. Although views of or from an asset will play an important part in the assessment of impacts on setting, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust, smell and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. For example, buildings that are in close proximity but are not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each..."*.

657. The application was accompanied by Cultural Heritage Impact Assessment, which assessed the impact of the proposal upon Listed Buildings, in particular the Grade II Listed Building of Station House, located 580 metres to the north of the proposal. The Assessment identified the impact would not be significant due to the natural topography and intervening M50 Motorway. The Assessment considered the impact upon the Grade II Listed Buildings of Bow Bridge Cottage and Barn, which are located approximately 260 metres east of the proposal. The Assessment identified the impact would not be significant due to the intervening steep sandstone cutting, which blocks intervisibility between the Listed Buildings and the proposed extraction area.

658. In relation to the group of Listed Buildings around at Puckrup located approximately 680 metres to the east of the proposed extraction area, the Assessment identified the impact would not be significant, stating that the intervisibility between them and the extraction area is very poor and they are adequately shielded from the extraction area by the natural topography and vegetation. The original setting (managed farmland) of these buildings has also been compromised by the construction the golf course to the south and a large hotel complex to the immediate south of Puckrup Hall. With regard to the group of Listed Buildings at Shuthonger in Gloucestershire (Twyning Farm including Walled Garden and Dairy, Shuthonger Villa, Shuthonger House, boundary wall, gates and gate piers to Shuthonger House and Crown Cottage) located approximately 815 metres to the south-east of the proposed extraction area. The Assessment identified a minor adverse impact stating that the position of these buildings on a high point on the valley edge means that they would have a distant view across the proposed extraction area.

659. Due to the proximity of the Grade II Listed Building of Puck Cottage to the extraction area (approximately 50 metres east of the application site), a detailed assessment was undertaken. The Assessment states that the most significant aspect of the cottage's setting is the fact that it remains within a relatively secluded, quiet and

tranquil agricultural landscape. This setting would not be significantly different to the one in which it was originally constructed, and this continued association contributes to one's appreciation of the cottage. The immediate setting of the cottage, within a small cluster of houses and former agricultural buildings along a secluded country road would not be physically affected by the development. The wider setting of the cottage, within an agricultural landscape would, however, be temporarily damaged, albeit only during the working life of the quarry.

660. In relation to visual impacts during extraction, the Assessment considers that the cottage would be shielded from views by a dense woodland thicket, whose height is above that of the cottage. Furthermore, a soil screening bund measuring approximately 3 metres high would provide an additional visual screening. The Assessment considers that there would be no intervisibility between the cottage and the extraction area due to intervening woodland, and, therefore, considers that there would be a negligible effect on significance on its setting from a visual perspective, as a result of the proposal.

661. During the life of the closest extraction phases to the cottage (Phases 1-7) the landscape setting, of large regular fields formed through field amalgamation farmland, would be under flux due to the progressive restoration programme which would mean some areas would be under extraction, some under restoration and some untouched. The broader setting of the cottage, namely an agricultural landscape, would be negatively impacted although the soil screening bund along the eastern edge of the extraction area and the dense thicket directly in front of Puck Cottage would reduce this impact during extraction to minor adverse. The development is anticipated to last approximately 9 years, although the closest phases to Puck Cottage, (Phases 3, 4 and 5) would be completed and restored within approximately 6 years. Given the temporary nature of the works and as the closest extraction areas would be restored to farmland at the existing ground levels, the Assessment considered the impact would not be significant.

662. With regard to dust and light impacts upon Puck Cottage, the Assessment states that *"Puck Cottage is in one of the areas that may experience the highest magnitude of dust effects during soil stripping and bund formation which may have a moderate adverse effect. Although the worst effects would only be experienced during short-term activities and are, therefore, considered to be transient. Mitigation measures have been proposed to reduce these impacts during extraction to...minor adverse...Although as the worst effects would be temporary, there would be no long-term impact upon the setting of Puck Cottage which reduces the impact to not significant"*.

663. The Assessment states that *"the use of artificial lighting on plant during the winter months would intermittently present a minor / negligible effect on visual amenities. As mineral extraction and processing operations during the winter months would be dictated by the availability of natural light the impacts of the limited use of artificial light on Puck Cottage is deemed to be minor adverse, reduced to not significant due to the temporary nature of the works"*.

664. With regard to vibration impacts upon Puck Cottage, the Assessment states that during the construction of the soil screening bund (the closest operations to the Listed Building), vibration levels are expected to be around 0.1mm/sec. This is below the level of perceptibility (i.e., 0.3mm/sec PPV) which would result in a negligible impact

magnitude and a neutral effect on the property. For any cosmetic damage to occur vibration levels would need to reach levels of around 5mm/sec. In view of this, the Assessment considers the vibration impacts upon the cottage is not significant.

665. With regard to noise impacts upon Puck Cottage, the Assessment states that the noise monitoring results demonstrate *“that noise levels for the life of the site would be comparable and at all receptors the noise level for the life of the site would be similar to or lower than background noise +10dB(A) or below the 55dB(A) maximum limit advised by planning guidance. Impacts are, therefore, shown to be of negligible magnitude and neutral impact significance. As the closest works to Puck Cottage, including the construction of the 3-metre-high bund would not exceed the short-term maximum levels of 70dB(A) Leq1 hour for 8 weeks per year. Impact magnitude is shown to be negligible. Therefore, as the noise levels at the closest point to the cottage are not expected to exceed the advised planning limits the effect to Puck Cottage is regarded as minor adverse during the life of the quarry. However, as the life of the quarry is temporary and is expected to be restored in around 9 years, the impact is regarded as not significant”*.

666. In relation to the Conservation Areas of Ripple and Uckinghall, the Assessment states that there is some intervisibility between the southern sides of these Conservation Areas and the proposed quarry extraction area although this is somewhat buffered by the natural topography, vegetation and the M50 Motorway. For the most part views from these Conservation Areas would be impeded except from the upper floors of buildings to the south of the villages. The proposed impact of the development on these Conservation Areas was, therefore, assessed as minor adverse to not significant. In relation to Church End Conservation Area, the Assessment considered that due to the distance of the extraction area to this Conservation Area the impact would not be significant. Due to the distance from these Conservation Areas, and topography and intervening vegetation and M50 Motorway, the Head of Planning and Transport Planning considers that impacts of dust, lighting, vibration and noise would not harm the setting of the Conservation Areas, with harm being restricted to visual and change to the wider setting of the Conservation Areas of Ripple and Uckinghall.

667. Of the five Scheduled Monuments within the wider context of the application site, four are stone crosses, three of which are located in the Villages of Uckinghall and Ripple. Due the distance from the proposed development, topography and intervening trees, vegetation and buildings the Assessment considers that the impact upon these Scheduled Monuments is not significant.

668. The Assessment states in relation to the setting of the Scheduled Monument of Towbury Hill Camp (which is a hillfort) that it would *“directly overlook the proposed extraction area and the removal of the gravels and floodplain via gravel extraction would significantly alter the setting of the fort and remove the resources the forts inhabitants would have been using and protecting. The potential that the fort was connected to the floodplain, a river crossing and valley settlement via a trackway / driveway that crosses the extraction area, also means that significant connections between the two zones would be lost. The construction of Bow Lane has already partially broken this connection, as has the construction of the M50 Motorway with the landscape to the north. However, gravel extraction would remove this landscape zone completely, not just limiting the access / connection between the two, and this change would be considered to be major adverse. This is more pronounced with the eastern*

half of the proposed extraction zone (extraction Phases 1 to 9) as there is some intervisibility from the second terrace to the hillfort. However, as the hillfort is flanked on its eastern edge by an established deciduous woodland belt intervisibility between it and the site is greatly reduced. It is expected that the quarry would only be active for around 9 years and the eastern extraction area would be progressively backfilled to its original ground levels and restored to agricultural land. The more permanent alterations would mostly be limited to the floodplain, where flexible working areas would be restored to wetland grassland, scrub and small ponds in keeping with their position on the floodplain. As a result, the impact of the development on Towbury Hill Camp would be reduced to moderate adverse”.

669. In relation to dust impacts upon the Scheduled Monument, the Assessment states that *“although the dust and air quality assessment did not assess the effects that dust may have on Towbury Hill Camp the highest magnitude of effect recorded on any targeted receptors was deemed to be moderate adverse. The assessment concludes that with the appropriate mitigation measures in place the overall impact of the development is considered to be not significant. Given the greater distance to Towbury Hill Camp...than any other dust receptor and the temporary nature of the works the overall impact is thought to be not significant”.*

670. In relation to vibration impacts, the Assessment states *“a noise and vibration impact assessment was undertaken for the proposed quarry and in particular the effects these would have on the surrounding receptors. Towbury Hill Camp was not specifically selected as a receptor, but the overall effects of predicted vibrations levels would only produce a negligible impact and neutral impact significance. As Towbury Hill Camp is at a greater distance than any other receptor in the study vibration impacts are regarded as not significant”.*

671. In relation to noise impacts, the Assessment states *“a noise and vibration impact assessment was undertaken for the proposed quarry...Towbury Hill Camp was not specifically selected as receptor, but the noise prediction mapping suggest that the noisiest activity would be during the construction of the earth bunds on the eastern side of extraction Phases 1 to 9. However, as the closest receptors in this study suggests this work would not exceed the short-term maximum levels of 70dB(A) Leq1 hour for 8 weeks per year, the impact magnitude is thought to be negligible. Although the greater distance to the hillfort, would reduce these levels further there would be minor adverse effect to the setting during the construction of the earth mounds. However, as these works are short-term and the life of the quarry is expected to be around 9 years, the long-term impact is regarded as not significant”.*

672. Historic England raise concerns regarding the application on heritage grounds. They consider that the application site makes a positive contribution to the significance of Towbury Hill Camp by providing an understanding of the function of the Scheduled Monument within the landscape. They note that full evaluation of the floodplain area has not been undertaken at this stage and, therefore, the nature and significance of non-designated archaeological remains in this area cannot be fully understood. There exists the potential for remains of considerable importance to survive within the application site. The proposals would result in the complete removal of non-designated archaeological remains within the application site that contribute to the understanding of the Towbury Hill Camp Scheduled Monument, and which form a part of its landscape. This would, in Historic England’s view, result in harm to the significance of the Scheduled Monument, which would be at the higher end of less

than substantial harm. Historic England consider that the level of harm could be mitigated through appropriate restoration to pre-extraction levels and in a manner sympathetic with current and historic land conditions.

673. Historic England states that the MPA should be satisfied that any harm identified is clearly and convincingly justified and should weigh the harm against the public benefits associated with the proposal. If the MPA is minded to approve the application, Historic England recommend that a formal definition for the lifespan of the quarry is sought to avoid the potential for a long-term or permanent impact to the setting of the scheduled hillfort. Historic England advise that a robust and detailed Heritage Mitigation Strategy should be devised and conditioned.

674. Historic England go on to state that the MPA in determining this application should bear in mind the statutory duty of Section 66 (1) and 72 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to have special regard to the desirability of preserving listed buildings or their setting or any features of special architectural or historic interest which they possess, and to pay special attention to the desirability of preserving or enhancing the character or appearance of conservation areas, respectively.

675. Historic England also note that the updated Proposed Restoration Plan appears to be missing annotations regarding the nature of the proposed restoration in some areas and, therefore, recommend that the MPA are satisfied with the clarity of the information provided. In response to Historic England, the applicant has confirmed that the colour / key for Phases 1 to 9 has been mistakenly omitted, and confirms it is still to be reinstated to arable farmland, which is still demonstrated by the detailed restoration scheme provided as part of the LEMP. In view of this, the Head of Planning and Transport Planning recommends the imposition of a condition requiring an updated detailed Restoration Scheme.

676. The CBA state that in principle they support the recommendation of the applicant's Cultural Heritage Assessment that a specialist geophysical survey, borehole survey and geoarchaeological modelling of the area of extraction in the floodplain should be programmed as a first stage of the post-determination mitigation programme rather than as part of the pre-determination works. The CBA have concerns that the Assessment, although competent and thorough, seems slightly dismissive with an aim of expressing minimal likely impacts on potential archaeology and the significance of the two key above-ground assets (Scheduled Monument of Towbury Hill Camp and the Listed Building of Puck Cottage). The Assessment does, however, point out that the claimed 'temporary' nature of mineral extraction still means long-term disruption, not just for the estimated 9 years on this phase / site. The CBA concur with this comment and request this be taken into consideration. The CBA request confirmation of a robust geophysical survey and watching brief be incorporated into the archaeological assessment and evaluation and assurances as to what action / mitigation would be undertaken in the event that sites / items of archaeological interest are discovered.

677. The County Landscape Officer wishes to defer to the comments submitted by Historic England and the County Archaeologist in terms of detailed matters of archaeological setting impacting Towbury Hill Camp Scheduled Monument. However, in terms of landscape impact, they state having visited the application site, the County Landscape Officer concurs with the results of the visual impact assessment set out in

the submitted LVIA and specific assessment prepared by Worcestershire Archaeology. The scheme would inevitably result in harm to the visual setting of the Scheduled Monument during the operational lifetime of the quarry. However, they are satisfied that the proposed restoration scheme would return the site to a form that is consistent with the historic landscape character of both the setting and wider River Severn corridor.

678. The County Archaeologist has no objections to the proposal, subject to the imposition of appropriate conditions, stating that they are satisfied that there is no reason to object to the application and that the loss of heritage assets can be mitigated through a programme of archaeological work.

679. In response to comments from Historic England, the County Archaeologist states that the recommended conditions would deal with the issue of the environmental deposits that has been raised by the Historic England. They concur with Historic England that the archaeological assessment has not, as it claims, demonstrated that the environmental deposits are unlikely to be of high significance. However, given the depth and complexity of any such deposits the County Archaeologist considers that it is very challenging to attempt to evaluate the significance of those deposits at this stage, and this is best dealt with through a programme of fieldwork as the quarry is worked. The County Archaeologist agrees that a robust and detailed Heritage Mitigation Strategy must be devised to manage the risks that deposits of high potential could be found. The recommended conditions are essential to ensure that this work is undertaken.

680. The County Archaeologist also concurs with Historic England that the proposed development would result in harm to the significance that the designated heritage asset derives from its setting. The level of harm should be mitigated through an appropriate scheme of restoration. The recommended archaeological conditions would also ensure that the direct impact to the undesignated archaeology within the site is mitigated through excavation and recording.

681. In response to CBA's comments regarding seeking to secure mitigation measures including a specialist geophysical survey, watching brief and assurances as to what action / mitigation would be undertaken in the event that sites / items of archaeological interest are discovered, the County Archaeologist confirms that the recommended programme of archaeological work, including a Written Scheme of Investigation condition would address CBA's requests. The County Archaeologist goes on to state that there would be significant impacts to below-ground archaeological deposits. The archaeology on the gravel terrace has been evaluated and there is a clear understanding of the nature and significance of the heritage assets here. They would need to be subject to a programme of excavation prior to their loss. The potential archaeology in the western part of the site is far more complicated to evaluate as it is deeply stratified and would likely be water-logged, making traditional trenching unworkable. The archaeology, including the palaeo-environmental remains, would need to be dealt with through a robust and complex mitigation strategy. The recommended conditions would allow this to happen throughout the lifetime of the extraction.

682. The District Archaeologist has no objections to the proposal, subject to the imposition of appropriate conditions, and considers the application submission has

adequately assessed the archaeological potential of the proposed development area in accordance with the NPPF.

683. Malvern Hills District Council's Conservation Officer supports the proposal stating that further information has been submitted that provides a statement of significance for Puck Cottage and an assessment of impact of the development. The findings of the Statement are agreed and the previous and revisited conclusions about the impact of the development upon the heritage asset are also considered accurate. The submitted Dust Management Plan is also considered to set out an appropriate scheme for the control of dust in relation to the heritage asset, Puck Cottage.

684. Malvern Hills District Council's Conservation Officer considers that there would be a less than substantial harm on the Listed Building of Puck Cottage and Conservation Areas of Ripple and Uckinghall. With Puck Cottage the adverse impacts would be mitigated by the methods described, so that the less than substantial harm would low during the extraction period for the quarry. The less than substantial harm to the Conservation Areas is considered to be negligible due to distance, topography and intervening M50 Motorway.

685. Tewkesbury Borough Council's Conservation Officer considers that there would appear to be no direct visual harm to any of the heritage assets identified in Tewkesbury Borough around the gravel extraction or the processing plant area. As for impacts upon heritage due to vibration, noise, light and dust from the proposed plant and activities they observed that there is likely to be some additional noise and traffic movements. However, based on the information available it is not realistically possible to attribute any tangible harm to heritage assets. In view of this, they state that there does not appear to be a policy reason regarding heritage to object to this proposal.

686. Notwithstanding the comments of Tewkesbury Borough Council's Conservation Officer, the Head of Planning and Transport Planning notes that the Cultural Heritage Impact Assessment identifies these properties would have distant views across the proposed extraction area, and it is considered that the proposal would harm these heritage assets due to changes to their wider setting of managed agricultural farmland overlooking the extraction area, albeit this would temporary and limited by the proposed phased and progressive working and restoration scheme.

687. In view of the above, the Head of Planning and Transport Planning considers that the proposals would lead to 'less than substantial' harm to the significance of the designated heritage assets of Towbury Hill Camp Schedule Monument, the Grade II Listed Buildings of Puck Cottage, Twyning Farm including Walled Garden and Dairy, Shuthonger Villa, Shuthonger House, boundary wall, gates and gate piers to Shuthonger House and Crown Cottage and Ripple and Uckinghall Conservation Areas.

688. Notwithstanding this harm is less than substantial, the harm must still be given considerable importance and weight, and considerable weight must be given to the desirability of preserving the setting of the designated heritage assets. Consequently, the fact of harm to a designated heritage asset is still to be given more weight than if simply a factor to be taken into account along with all other material considerations.

689. Paragraph 202 of the NPPF states *"where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use"*.

690. The PPG at Paragraph Ref ID: 18a-020-20190723 confirms that *"public benefit may follow from many developments and could be anything that delivers economic, social or environmental objectives as described in the NPPF. Public benefits should flow from the proposed development. They should be of a nature or scale to be of benefit to the public at large and should not just be a private benefit. However, benefits do not always have to be visible or accessible to the public in order to be genuine public benefits, for example, works to a listed private dwelling which secure its future as a designated heritage asset could be a public benefit"*.

691. The Head of Planning and Transport Planning considers that subject to the imposition of appropriate conditions including a programme of archaeological work, an interpretation strategy for cultural heritage, landscape, biodiversity and geodiversity, a phasing scheme, construction of a temporary screening bund, updated restoration scheme, aftercare scheme, Biodiversity Mitigation Scheme, LEMP, the development being carried out in accordance with the Arboricultural Report, requiring the permission to be restored within a set timescale, restricting the working hours, restricting lighting, limiting height of stockpiles and Noise, Vibration and Dust Management Plans and monitoring schemes, that on balance, in view of the public benefits of the proposal, namely the creation of a small number of direct employment opportunities (approximately 20 employees), as well as contributing to the wider growth aspirations for the County through the supply of local aggregates to the construction market, that this outweighs the temporary and less than substantial harm to these designated heritage assets.

692. Paragraph 194 of the NPPF states that *"where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation"*.

693. The application was accompanied by an archaeological desk-based assessment, archaeological trenching evaluation, geophysical survey report and geoarchaeological assessment which identified archaeological assets of variable significance within the application site ranging in date from at least the earlier prehistoric period through to the post-medieval periods. Of particular note are the presence of widespread and regionally significant deposits of Iron Age date identified in varying densities across much of the terrace area within the application site and coinciding with the greater part of the extraction areas. The likely presence of localised areas of regionally significant waterlogged organic deposit sequences, and the potential presence of a regionally significant Civil War artefacts. Assets of negligible or only local significance are also present or potentially present. Impacts of the proposed development on these assets vary from negligible to major adverse in the case of the Iron Age remains. The Assessment recommends mitigation to be secured by planning condition requiring of archaeological works to be established within a Written Scheme of Investigation.

694. Having regard to the advice contained at paragraph 209 of the NPPF, which states *"the effect of an application on the significance of a non-designated heritage*

asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset". In view of this and based on the advice of the County and District Archaeologists, the Head of Planning and Transport Planning considers that on balance, subject to the imposition of appropriate conditions, that the impact upon the non-designated archaeological assets is not of such significance as to constitute a refusal reason in this instance. The Head of Planning and Transport Planning considers that the proposal is in accordance with Policy MLP 32 of the adopted Worcestershire Minerals Local Plan, Policies WCS 9, and WCS 12 of the adopted Worcestershire Waste Core Strategy and Policies SWDP 6 and SWDP 24 of the adopted South Worcestershire Development Plan.

Ecology, biodiversity and geodiversity

695. Letters of representation have been received objecting to the proposal on the grounds of adverse impact upon ecology and biodiversity, including impacts on wildlife, nature reserves, River Severn, and nesting birds such as the skylark. Consider the proposal would create a sanitised area devoid of wildlife, and concerns regarding the removal of the veteran trees contrary to planning policy.

696. Ripple Parish Council object to the proposal, commenting that there are no prescriptive details provided about the aftercare and restoration schemes. Twyning Parish Council object to the proposal stating that there is no doubt that the quarry would destroy the local area stripping away the natural habitat for burrowing animals and threatened bird species and removing ancient trees and hedgerow.

697. Policy MLP 31: 'Biodiversity' of the adopted Worcestershire Minerals Local Plan states that *"planning permission will be granted where it is demonstrated that the proposed mineral development will conserve, enhance and deliver net gains for biodiversity..."*.

698. Policy MLP 36: 'Geodiversity' of the adopted Worcestershire Minerals Local Plan states that *"planning permission will be granted where it is demonstrated that the proposed mineral development will conserve, enhance geodiversity..."*.

699. Policy WCS 9: 'Environmental Assets' of the adopted Worcestershire Waste Core Strategy, includes ensuring that proposals, will have no unacceptable adverse impacts on international, national or locally designated or identified habitats, species or nature conservation sites. Policy WCS 10: 'Flood risk and water resources' of the adopted Worcestershire Waste Core Strategy refers to ensuring that proposals would *"have no likely significant effects on any internationally designated sites"*.

700. Policy SWDP 5: 'Green Infrastructure' of the adopted South Worcestershire Development Plan sets out, amongst other aspects, that *"once a planning permission has been implemented, the associated GI will be protected as Green Space (SWDP 38 refers)"*. Policy SWDP 22: 'Biodiversity and Geodiversity' of the adopted South Worcestershire Development Plan states at Part A *"development which would compromise the favourable condition of a SAC or other international designations or the favourable conservation status of European or nationally protected species or habitats will not be permitted"*. Part B of this Policy states *"development likely to have an adverse effect on a SSSI will not be permitted, except where the benefits of the development at that site clearly outweigh both its likely impact on the features of the"*

site that make it of special scientific interest and any broader impacts on the national network of SSSIs". This Policy goes on to state at Part F that "development should, wherever practicable, be designed to enhance biodiversity and geodiversity (including soils) conservation interests as well as conserve on-site biodiversity corridors / networks. Developments should also take opportunities, where practicable, to enhance biodiversity corridors / networks beyond the site boundary".

701. Section 15 of the NPPF paragraph 174 states that *"planning policies and decisions should contribute to and enhance the natural and local environment", by a number of measures including "a) protecting and enhancing...sites of biodiversity or geological value and soils in a manner commensurate with their statutory status or identified quality in the Development Plan); ...d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures".*

702. Paragraph 180 of the NPPF states that when determining planning applications, local planning authorities should apply four principles (a. to d.), this includes: *"if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused"; and "development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate".*

703. The submitted Ecological Impact Assessment identifies the application site is primarily arable farmland incorporating wet woodland, wetland, the Ripple and Mythe Brooks with associated grassland and a network of hedgerows, ditches and scattered trees. The Assessment identifies that the arable farmland to be of low ecological value, with more important ecological features including hedgerows, wet woodland, mature trees, marshy grassland and standing and flowing water. The Assessment identified these habitats as important in a Local to County context.

704. The Assessment also identified nationally scarce plant species of corky-fruited water dropwort (located on the margins of the Ripple / Mythe Brooks; soft hornwort (located in shallow wetland in Ripple Lake and Napps LWS); and mousetail (located on arable land east of River Severn), which are important in a county context. The Assessment states that habitats supporting corky-fruited water dropwort and soft hornwort would be retained and protected, but the loss of habitat containing mousetail plants cannot be mitigated. However, the topsoil and vegetation / seedbank would be temporarily stored on-site before being re-used in land restoration to allow them to recolonise.

705. The ES states that the proposed extraction areas are located almost entirely on the arable land. The more important ecological features (riverine, woodland, wetland and most hedgerows) generally lie outside the extraction areas and would not be directly affected by the proposed development.

706. The Assessment considers the site as being of County level importance for birds and bats and supports a small number of breeding waders. Evidence of otters in the adjacent wetland areas was recorded. Great crested newts and water voles were

found to be absent from the site, and the Assessment identifies a small number of grass snakes using discrete areas of the site, particularly the north-eastern area of the site. The Assessment also identifies the watercourses as providing important habitat for eel.

707. The Ecological Impact Assessment identifies 1 tree (T91), a dead oak tree located in Gloucestershire in the area of the proposed processing plant site as a confirmed bat roost (likely for pipistrelle bats). The removal of this oak tree would require a licence from Natural England. The licence application would require additional bat emergence surveys and would include a Method Statement detailing the appropriate mitigation, which could include pre-felling tree-climbing inspection, exclusion of bats, timing of felling, and careful section felling. It falls to Gloucestershire County Council to consider whether the 3 Habitats Directive "derogation tests" in Regulation 53 of the Conservation of Habitats and Species (Amendment EU Exit) Regulations 2019 would be met, but it is noted that the applicant has submitted their own assessment of the derogation tests.

708. With regard to impacts upon foraging and commuting bats, the Assessment identifies that there would be indirect, temporary, negative impacts of a local scale, but that these indirect impacts have been significantly reduced by avoiding key habitats on-site. The remaining indirect adverse impacts associated with the loss of hedgerow cannot be mitigated, however, the loss of hedgerow would be partly compensated for by replanting the hedgerow sections removed during operational phase with species-rich native hedgerow as soon as possible after excavation has been completed. However, overall, there would be loss of hedgerow length of approximately 587 metres between the existing baseline and proposed restoration. Fundamental to this overall loss is the removal of approximately 500 metres of internal hedgerow within the flexible working area phases. A restoration aim within this area is to attract ground nesting birds through the delivery of wetland scrapes and grassland. It is considered that the reinstatement of this internal hedgerow would provide a vantage point for predators overlooking the habitat, deterring a primary habitat function, therefore, it is considered beneficial to overall restoration scheme's aims not replace this section of hedgerow. Beyond this, removed hedgerow is largely reinstated to existing lengths albeit impacted by the inceptor drain and drainage basin along eastern and western boundaries of the arable area (Phases 1 to 9). Only a single hedgerow (H1) located to the north of the Flexible Working Areas A and B is classified as being species-rich and is to be retained. All other hedgerows are classified as species-poor, and none meet the criteria of being 'Important' under the Hedgerow Regulations 1997. Overall, the Head of Planning and Transport Planning considers that the impacts upon foraging and commuting bats would not be significant, and this conclusion is not reliant on the impact being temporary. A condition is recommended requiring no fixed lighting to be installed on the part of the application site falling within the administrative boundaries of Worcestershire.

709. A number of mitigation measures are proposed in relation to protected species. For otters, mitigation measures include monitoring the water table within wetland habitats, and if there is a significant abnormal drop in the water table implementation appropriate measures (e.g., pumping clean surface water into affected areas); buffer zones from riverine and wetland habitats; dust management plan; and implementation of best practice measures to avoid accidental spillages.

710. In relation to breeding birds, mitigation measures include undertaking vegetation clearance outside the bird breeding season (March to August, inclusive), or if this is not possible a pre-works inspection would be undertaken by an ecologist, and if nests are found to be present a suitable buffer would be left until the nest has been vacated.

711. In relation to grass snakes, mitigation measures include any loose habitat piles being carefully dismantled under ecological supervision between April and September, inclusive; habitat (shrubs and ground vegetation) carefully cut to ground level then cleared using an excavator; and following topsoil stripping and until the land is restored post-quarrying, the land within each quarrying phase would be maintained as bare soil to deter grass snake from using the active quarry site.

712. In relation to eels, mitigation measures include exclusion buffers (incorporating bunds and drainage ditches) from riverine habitats; and the implementation of best practice measures to reduce the risk of accidental spillage of pollutants.

713. The ES states that the restoration scheme proposes to restore the majority of the eastern section of the site back to arable farmland with open waterbodies, whilst a large area of wetland mosaic habitat would be created within the western section of the site. Compared to the current baseline, the proposed restoration would result in the replacement of approximately 29.7 hectares of lower-grade agricultural land with biodiversity and nature conservation gain. This would largely be directed towards the Flexible Working Areas A and B. The ES demonstrates that there would be a net gain in the extent and quality of deciduous woodland, waterbodies, ditch habitat, wetland grass and scrub, scrapes, and wetland marginal habitat.

714. The applicant submitted an Existing and Proposed Habitat Schedule, which seeks to establish approximately 16.1 hectares of wet grassland and scrub, approximately 2.5 hectares of wetland marginal habitat, approximately 1.2 hectares of field margins containing floristically rich, tussocky grassland would be created, and approximately 1.6 hectares of deciduous woodland creation is proposed in the areas to the west of Phase 1 to 3, west of Phase 9 and along the northern boundary of the proposed processing plant site area. In addition, the proposal would create drainage basins (approximately 2.3 hectares), interceptor ditch (approximately 2.9 hectares), waterbodies (approximately 2.1 hectares) and scrapes (approximately 2 hectares).

715. The ES concludes that the proposed development is considered to provide positive ecological benefits at the Local (District) to County scale. In the medium to long-term, the proposed development would not contribute to and could off-set any existing or future adverse ecological effects in the local landscape.

716. Further details regarding the restoration scheme are considered in the 'Restoration and Aftercare of the Site' section of this report.

717. In relation to veteran trees it is noted that paragraph 180 of the NPPF states that *"when determining planning applications, local planning authorities should apply the following principles:...c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons [for example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly*

outweigh the loss or deterioration of habitat] and a suitable compensation strategy exists”.

718. In Gloucestershire the proposed internal haul route between the mineral extraction area (Phases 1 to 9) and the processing plant site area would run adjacent to veteran (T77, G78 and T80, which are all Oak Trees, except for the group of trees which are Oak and Willow). The applicant is seeking to retain these trees but acknowledges that the construction of the haul road and its use has the potential to damage their tree roots. Therefore, prior to any site clearance, or excavation works a site meeting with an Arboriculturalist would be conducted in order to clarify the precise location of the haul route and details of the tree protection measures.

719. In Worcestershire, there are a number of veteran trees located on the western boundary of Phases 1 to 9, on the eastern edge of Flexible Work Area B, along an internal field boundary within the Flexible Working Area A and on the southern edge of Flexible Working Area A.

720. Originally the applicant proposed to remove veteran trees, including Tree T30 (Oak), Tree T50 and Group G51 (Crack Willows), and calculated that the retention of all the veteran trees on site would reduce the volume of extractable mineral by approximately 75,000 tonnes (approximately 5% of the overall anticipated mineral yield). As the scheme has progressed, in response to consultation comments, and in recognition of the importance of veteran trees as a habitat the applicant is now seeking to retain all veteran trees on and adjacent to the site. During extraction the veteran trees would be protected with appropriate stand-off distances (15 times their stem diameter) and Heras fencing.

721. There are a number of statutory and non-statutory wildlife designated sites within 3 kilometres of the proposal, as outlined within ‘The Site’ section of this report. For LWSs located 700 metres and over from the application site the Assessment concludes that there are no potential pathways by which the proposal would affect their habitat structure and function, or conservation status. The Assessment concludes that there would be no direct ecological impact from the proposed scheme on the two LWSs located within the application boundary (Ripple Lake and Napps LWS and Ripple Brook LWS) and the adjacent River Severn LWS, and mitigation measures are proposed to ensure no unacceptable adverse indirect effects.

722. Natural England and Worcestershire Wildlife Trust have both been consulted due to the proximity of the proposals to SSSIs and LWSs, respectively. Natural England have raised no objections, stating that the proposed development would not damage or destroy the interest features for which the Upper Severn Estuary SSSI and Severn Estuary SSSI have been notified. Worcestershire Wildlife Trust has no objections to the proposal, subject to the imposition of conditions requiring a CEMP, LEMP, soil management, lighting scheme, and long-term ground water monitoring scheme and maintenance and monitoring scheme for the SuDS and clay barrier.

723. The Wildlife Trust note the comments of the County Ecologist and states that assuming that these minor matters can be rectified the Wildlife Trust would not wish to object to the proposed development and are content to defer to the County Ecologist for all further on-site biodiversity considerations. Notwithstanding this, the Wildlife Trust also note the comments submitted by Gloucestershire Wildlife Trust in

relation to biodiversity net gain and recommend that the MPA ensure that the proposals are fully compliant prior to determination.

724. The Wildlife Trust also comment that there is a reasonable population of the scarce plant Mousetail on site. This is very unusual in Worcestershire and so the proposals for positive topsoil management and re-spreading are welcome, should be covered by condition. Conditions are recommended to this effect, requiring a Biodiversity Mitigation Scheme, all topsoil and subsoil to be permanently retained on site and used in restoration, and the development to be carried out in accordance with the Soils Handling Strategy.

725. Gloucestershire Wildlife Trust comment that they challenge the claims made by the applicant that the restoration would deliver 'significant Biodiversity Gain' and 'significant net enhancements for biodiversity'. The existing and proposed habitat schedule does not appear to have used the Defra biodiversity metric and as a result it assesses losses and gains in hectares rather than biodiversity units. This is not best practice because it does not account for the multiple factors that influence this outcome other than area of habitat. In view of this, Gloucestershire Wildlife Trust request that the latest version of the Defra biodiversity metric is submitted as part of the application to ascertain if the claims about biodiversity gains are substantiated, as they consider that the Defra metric is the only robust evidence to demonstrate whether Biodiversity Net Gain is being achieved. They also requested a longer-term aftercare period, preferably for a 30-year period to accord with future Biodiversity Net Gain mandates.

726. In response to Gloucestershire Wildlife Trust's comments, the County Ecologist states that there is no national or local policy that requires the Defra biodiversity metric to be applied at the current time, and the submitted habitat schedule is acceptable. Furthermore, the Head of Planning and Transport Planning notes that whilst the Environmental Act 2021, which received Royal Assent on 9 November 2021 requires developers to provide at least 10% biodiversity net gain, and it is the Defra biodiversity metric which underpins this legislation for mandatory biodiversity net gain in England, the nature part of the Environmental Act 2021 requires secondary legislation (regulations) to be made to Parliament to set a commencement date and includes transitional arrangements in relation net gain for biodiversity (2 year implementation phase – live winter 2023) and thus is not mandatory and would not apply to this application. This is the same for the 30-year aftercare period, and it is considered that a 10-year after period is acceptable in this instance, and which is longer than the statutory 5-year aftercare period for mineral proposals.

727. The County Ecologist raises no objections to the proposal, subject to the imposition of conditions regarding tree protection and arboricultural methods, soil handling strategy, Dust Management Plan, Noise Management Scheme, Water Management Scheme, Biodiversity Mitigation Scheme, no external lighting to be installed in the part of the site in Worcestershire, restoration and aftercare scheme, updated LEMP and a 10-year aftercare period.

728. The County Ecologist is pleased to see that most documents have been updated as per their request in their previous comments. However, there are still some inconsistencies in the LEMP. The County Ecologist recommends that this is addressed by the imposition of a condition requiring an updated LEMP. A condition is recommended to this effect.

729. The County Ecologist has also reviewed comments from local residents; however, they consider that the matters raised in relation to ecology have either been appropriately addressed or are the subject of recommended conditions.

730. The County Landscape Officer also raises no objections to the proposal, subject to the imposition of appropriate conditions. In relation to veteran trees, they welcome the updates and clarifications concerning the proposed inclusion and management of the veteran tree assemblage and is satisfied this is now represented in the Tree Protection Plan. The County Landscape Officer also notes the inconsistencies in the LEMP as noted above by the County Ecologist, but also considers these can be addressed by the imposition of an appropriate condition. Notwithstanding these inconsistencies, the County Landscape Officer considers that the Restoration Plan and LEMP are sufficient in detail to deliver all measures and restoration aims.

731. The application site is located approximately 40 kilometres north-east of the Severn Estuary SPA and SAC which are European sites. The Severn Estuary is also notified as a Ramsar Site (of international importance) and at a national level as the Upper Severn SSSI. Despite the distance from these European sites, the application site is hydrologically linked to them and hence has the potential for impacts through functional hydrological connectivity and the potential presence of migratory species within the upper River Severn catchment.

732. The Government's PPG provides advice and guidance planning applications which may impact upon European sites, stating *"all plans and projects (including planning applications) which are not directly connected with, or necessary for, the conservation management of a habitat site, require consideration of whether the plan or project is likely to have significant effects on that site. This consideration – typically referred to as the 'Habitats Regulations Assessment (HRA) screening' – should take into account the potential effects both of the plan / project itself and in combination with other plans or projects. Where the potential for likely significant effects cannot be excluded, a competent authority must make an appropriate assessment of the implications of the plan or project for that site, in view the site's conservation objectives. The competent authority may agree to the plan or project only after having ruled out adverse effects on the integrity of the habitats site. Where an adverse effect on the site's integrity cannot be ruled out, and where there are no alternative solutions, the plan or project can only proceed if there are imperative reasons of over-riding public interest and if the necessary compensatory measures can be secured"* (Paragraph Ref ID: 65-001-20190722).

733. The PPG goes on to state that *"if a proposed plan or project is considered likely to have a significant effect on a protected habitats site (either individually or in combination with other plans or projects) then an appropriate assessment of the implications for the site, in view of the site's conservation objectives, must be undertaken (Part 6 of the Conservation of Habitats and Species Regulations 2017)...A significant effect should be considered likely if it cannot be excluded on the basis of objective information and it might undermine a site's conservation objectives. A risk or a possibility of such an effect is enough to warrant the need for an appropriate assessment. The conservation objectives relate to each of the habitats and species for which the site was designated and will be provided in more detail by Natural England. A competent authority must consult Natural England for the purposes of the assessment and must have regard to any representations that Natural England may*

wish to make within a reasonable time (as specified by the competent authority)”
(Paragraph Ref ID: 65-002-20190722).

734. The HRA Screening Assessment concludes that the proposal could result in likely significant effects to the Severn Estuary SAC / SPA / Ramsar site by changes in species distribution (migratory fish species and over-wintering bird species), water pollution and air pollution. Therefore, these effects require further consideration at the HRA AA stage to determine whether, in light of any mitigation and avoidance measures, they would result in adverse effects on the integrity of the above European sites, either alone, or in combination with other plans and projects.

735. In relation to other European designated sites, the HRA Screening Assessment states that a number of European designated sites have been identified within 40 kilometres of the application site. Nevertheless, no associated impact paths have been established. As such, the proposal is considered highly unlikely to have any impact on the functionality or integrity of these sites, or have any adverse effect on their conservation status, provided that standard construction procedures are followed during the proposed works.

736. The HRA AA concludes that with appropriate mitigation and protective measures, there would be no effect on the integrity of the Severn Estuary SAC / SPA / Ramsar site in view of its conservation objectives, either alone or in combination with other plans and projects. This conclusion takes into account the proposed adjacent Ripple East Quarry by CEMEX. In addition, the HRA AA states that there are no anticipated ‘cross boundary’ effects, and as such, it is considered unnecessary in this instance, to consult the advice of Natural Resources Wales.

737. Mitigation Measures outlined in the HRA AA include: using a groundwater interception ditch; maintenance of all plant, machinery and vehicles; safe on-site parking; safe storage of on-site chemicals, oil and fuel; collection and off-site removal of wastewater from the site; implementation of best practice pollution guidelines; production of a pollution incident contingency plan; no uncontrolled run-off would be allowed to leave the site; implementation of surface water attenuation and management scheme; management of silt laden water via silt lagoons; groundwater level monitoring; grass seeding or matting (e.g. using a pre-seeded erosion control blanket) the bunds associated with the silt lagoons; implementation of a Dust Management Plan; single span bridge over the Ripple / Mythe Brooks; restricting all quarrying operations to normal daylight working hours; implementation of Noise Mitigation Strategy; and retention of existing vegetation between proposal and the Ripple Lake and Napps. In response to original comments from the Environment Agency regarding fish potentially becoming trapped in receding flood waters, the applicant submitted further information in relation to a Fish Rescue Strategy and the HRA AA was updated accordingly.

738. In response to the HRA AA, Natural England have confirmed that they have no objections to the proposal in terms of potential impacts upon the Severn Estuary SPA, SAC and Ramsar site, subject to conditions securing the mitigation measures outlined within the HRA AA. They state that they have reviewed the updated HRA AA produced by an ecological consultant on behalf of Worcestershire County Council, as competent authority, which includes an update in response to the Environment Agency’s original comments on migratory fish. The Council’s AA concludes that the proposal would not result in adverse effects on the integrity of any of the sites in

question. Having considered the assessment, and the measures proposed to mitigate for all identified adverse effects that could potentially occur as a result of the proposal, Natural England advises that they concur with the AA conclusions, providing that all mitigation measures are appropriately secured should planning permission be granted.

739. In response to the HRA AA, the Environment Agency originally requested further information in relation to impacts upon migratory fish. In response to the additional information from the applicant providing a Fish Rescue Strategy, and the subsequent updated HRA AA, the Environment Agency comment that they note the Strategy is principally directed to the proposed flexible working phases located in Flood Zone 3, but the Strategy would be applied site wide, if and when required. The Environment Agency consider that the Fish Rescue Strategy addresses their previous concerns and is satisfactory. They recommend securing the Strategy with the imposition of an appropriately worded planning condition. The Environment Agency confirm they have no further comments on the HRA AA.

740. The Herefordshire and Worcestershire Earth Heritage Trust has requested cooperation in allowing access to review and record exposed faces within the river terraces. The applicant states that they have experience of working with geologists in providing access for review and recording within their operational sites and would be happy cooperate with the Earth Heritage Trust should planning permission be granted. The Earth Heritage Trust state that they would welcome geodiversity interpretation scheme. A condition is recommended to this effect.

741. Objections have been received stating that a felling licence would be required from the Forestry Commission. The applicant states that *“if the timber to be felled exceeds 5 cubic metres in any one year, a Felling License would be sought from the Forestry Commission in advance of any tree works”*. The Head of Planning and Transport Planning also notes that the guidance document titled: *‘Tree Felling Getting Permission’*, dated 2020 by the Forestry Commission outlines when a Felling License is required. This includes a number of exceptions which includes *“the felling of trees is immediately required for the purpose of carrying out development that is authorised by the approval of full planning permission”*, subject to a number of conditions / caveats being met. Notwithstanding this, it is considered that the requirement for a Felling License is separate to that of planning and is covered by other legislation.

742. In view of the above, the Head of Planning and Transport Planning considers that subject to the imposition of appropriate conditions, that the proposed development would not have an unacceptable adverse effect upon ecology, biodiversity and geodiversity at the site or in the surrounding area, including European sites, and would protect, conserve and enhance the application site’s value for biodiversity. The Head of Planning and Transport Planning considers that the proposal is in accordance with Policies MLP 31 and MLP 36 of the adopted Worcestershire Minerals Local Plan, Policies WCS 9 and WCS 10 of the adopted Worcestershire Waste Core Strategy, and Policy SWDP 22 of the adopted South Worcestershire Development Plan.

Water environment and flood risk

743. Letters of representation have been received objecting to the proposal on the grounds of adverse impact upon the water environment, in particular the impact upon flooding of the village of Ripple and Bow Lane, loss of flood storage due to use of

impermeable inert materials to restore the site, consider the Hydrological Assessment is incomplete and water pollution.

744. Ripple Parish Council object to the proposal stating that the role of Ripple Brook which feeds into Mythe Brook is significant in Ripple Parish and does not appear to have been considered in depth by the applicant. Any rebalancing of the aquifer has the potential to increase flooding and may potentially have adverse effects on the Uckinghall flood relief scheme. The Parish Council consider that the drainage mitigation measures are inadequate, and little attention has been given to the effects of climate change. Calculations relating to rainfall and groundwater recharge appear to be based on average figures.

745. Twynning Parish Council consider there is a very high risk of the site workings being inundated by river flood events which in terms of the flexible working areas are also at risk during minor flooding even in the summer. Areas of the site workings are up to 6 metres deep close to the river and 8 metres deep in the main phases. The only way these voids could be pumped out is directly into the river with the attendant silt damage to the river ecosystem. They also raise concerns of the proposed screening bunds exacerbating flooding on Bow Lane.

746. Policy MLP 37: 'Water Quality and Quantity' of the adopted Worcestershire Minerals Local Plan states that *"planning permission will be granted where it is demonstrated that the proposed mineral development will protect and, where possible, enhance the quality, quantity and flow of surface water and groundwater resources..."*. Policy MLP 38: 'Flooding' of the adopted Worcestershire Minerals Local Plan states that *"planning permission will be granted where it is demonstrated that the proposed mineral development will avoid increasing flood risk to people and property on site or elsewhere and contribute, where possible, to a reduction in overall flood risk..."*.

747. Policy WCS 10: 'Flood risk and water resources' of the adopted Worcestershire Waste Core Strategy refers to considering flood risk as well as any potential impacts on surface and ground water.

748. Policy SWDP 28: 'Management of Flood Risk' of the adopted South Worcestershire Development Plan seeks to minimise the impacts of and from all forms of flood risk, which includes requiring applicants to submit a Flood Risk Assessment (FRA) for certain types of development, including where the proposal includes land in Flood Zones 2 and 3 (as defined by the latest Environment Agency mapping). Policy SWDP 29: 'Sustainable Drainage Systems' of the adopted South Worcestershire Development Plan seeks to minimise flood risk, improve water requires development proposals and groundwater recharge and enhance biodiversity and amenity interest. Policy SWDP 30: 'Water Resources, Efficiency and Treatment' of the adopted South Worcestershire Development Plan seeks to ensure that water is effectively managed, including reducing the impact of flooding, and maintaining water quality. Policy SWDP 31: 'Pollution and Land Instability' of the adopted South Worcestershire Development Plan seeks to ensure that proposals are designed to avoid any significant adverse impacts from pollution including cumulative ones on, amongst other aspects, the water environment.

749. A Flood Risk Assessment accompanied the application, as required by paragraph 167 and Footnote 55 of the NPPF, as the proposed development is

located within Flood Zone 1 (low probability of flooding), Flood Zone 2 (medium probability of flooding) and Flood Zone 3 as identified on the Environment Agency's Indicative Flood Risk Map.

750. Paragraph 159 of the NPPF states that *“inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere”*.

751. Paragraph 167 of the NPPF states that *“when determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:*

- a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*
- b) the development is appropriately flood resistant and resilient such that in the event of a flood, it could be quickly brought back into use without significant refurbishment;*
- c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*
- d) any residual risk can be safely managed; and*
- e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan”*.

752. Paragraph 162 of the NPPF states that *“the aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding”*.

753. Paragraph Reference ID: 7-023-20220825 of the PPG makes it clear that the sequential approach *“is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding”*.

754. It also recognises that *“mineral deposits have to be worked where there is no scope for relocation (and sand and gravel extraction is defined as water-compatible development in the NPPF Annex 3, acknowledging that these deposits are often in flood risk areas). However, mineral workings should not increase flood risk elsewhere and sites need to be designed, worked and restored accordingly”* (Paragraph Reference ID: 7-030-20220825).

755. With regard to the sequential test, the consideration to alternative sites and the location of the development is considered in the ‘Alternatives’ and ‘Location of the development’ sections of this report. It is also noted that minerals are a finite natural resource and can only be worked where they are found. The Head of Planning and

Transport Planning considers that there are no reasonably available sites appropriate for the proposed development locally with a significantly lower flood risk. The applicant has sought to locate the processing plant and access in Flood Zone 1 (low probability of flooding). In view of this, it is considered that the sequential test is passed in this instance.

756. The proposed development is classed as 'water-compatible development', as identified by Annex 3: 'Flood risk vulnerability classification' of the NPPF. 'Table 2: 'Flood risk vulnerability and flood zone 'incompatibility'" of the PPG shows that 'water-compatible' development is acceptable in Flood Zones 1 (low probability of flooding), 2 (medium probability of flooding), 3a (high probability of flooding), and 3b (functional floodplain). In accordance with Table 2, the exception test outlined in the NPPF is not required, subject to being "*designed and constructed to:*

- *remain operational and safe for users in times of flood*
- *result in no net loss of floodplain storage*
- *not impede water flows and not increase flood risk elsewhere"* (Paragraph Reference ID: 7-079-20220825)

757. The submitted Flood Risk Assessment states that to ensure the proposed development, which involves the construction of perimeter bunds and placement of temporary stockpiles and soil storage mounds, does not cause a net loss of floodplain storage throughout its lifetime, a floodplain storage compensation assessment has been undertaken. The results demonstrate that no net loss of floodplain storage would occur throughout the life of the proposed development.

758. The Flood Risk Assessment goes onto state that restoration of Phases 1 to 9 would be back to pre-extraction ground levels (via site derived materials and importation of inert waste) and Flexible Working Areas A and B would be restored to waterbodies and wetland (using site derived mineral waste) below pre-extraction ground levels. Thus, all the site area would be restored to or below pre-excitation ground levels, providing a net gain in floodplain storage and conveyance.

759. The Flood Risk Assessment notes that two bridges are proposed as part of the proposal across watercourses, 1) the eastern bridge proposed to cross the Ripple Brook, between Phase 9 and the unnamed drain; 2) the western bridge proposed to cross an unnamed watercourse downstream of the Ripple Lake and The Napps LWS, between Phase 9 and Flexible Working Area A. The Assessment states that to ensure minimum disruption to flow storage and conveyance, both bridges would be constructed with flat decks (with only handrails on each side), and soffit levels of at least 1 metre above surrounding ground levels to the west. Therefore, the only element causing loss of floodplain storage and conveyance would be the bridge deck, and this would only be the case during major flooding events. In the occurrence of a major flooding event, the loss of floodplain storage caused by the bridge decks would be fully compensated by the net gain in floodplain storage capacity throughout all phases of the development. In order to compensate for the potential loss of flood conveyance caused by the bridge decks during major flooding events, a slot of ground adjacent to the watercourses, at the proposed bridge locations, would be excavated, thereby providing additional conveyance capacity.

760. In response to comments from Worcestershire Wildlife Trust, the applicant has confirmed that both bridges would include a clear span to protect both the

watercourses and their marginal vegetation. A condition is recommended requiring the detailed design of these bridges.

761. The applicant has also confirmed that the site would register with the Environment Agency's Floodline service. A Flood Warning Procedure and Evacuation Plan would be put in place to advise staff of protocols in the event of flooding. For instance:

- In the event of receiving a Flood Watch alert (flooding of low-lying land and roads expected), all members of staff and site visitors would be notified. Groundwater and river water levels in the vicinity of the site would be monitored in case overtopping does occur
- In the event of receiving a Flood Warning alert (flooding of homes and businesses expected or in severe cases, danger to life or property), all visitors would be instructed to evacuate. Mobile machinery would be relocated to the processing plant site (located in Flood Zone 1). All work would cease, and staff would evacuate the site

762. The applicant goes on to state that the processing plant site has been purposefully located within Flood Zone 1, as this would enable processing of 'as dug' material to remain operational in the event the mineral extraction area is flooded or cut off due to low-lying flood events.

763. In view of the above, it is considered that the applicant has demonstrated that the proposal would remain operational and safe for users in times of flood; the proposal would not result in a net loss of floodplain storage; and would not impede water flows and not increase flood risk elsewhere.

764. In terms of potential operational impacts upon water quality, the Hydrogeological and Hydrological Impact and Flood Risk Assessment outlines a number of mitigation measures, which includes:

- All plant, machinery and vehicles would be routinely maintained to industry standards
- All vehicles would be parked overnight on an impermeable hardstanding, draining to an oil interceptor
- All vehicle and mobile machinery maintenance would be undertaken in an off-site facility
- On-site fuel storage would be with a double-lined tank located within a bunded compound with sufficient storage to retain 110% of the tank volume
- The site would operate site spill kits and follow industry standard accidental spillage and clear up procedures

765. With regard to groundwater, the applicant has confirmed they would install a below ground clay cut-off around the perimeter of the site and key this into the underlying weathered bedrock clay / mudstone to create an impermeable hydraulic seal between the Phase 1 to 9 excavation area and the surrounding sand and gravel aquifer. The placement of an impermeable seal would prevent the groundwater flow from passing westwards through Phases 1 to 9. This has the potential, if there is no mitigation, to prevent groundwater base flow from entering the surface waterbodies

(such as Ripple Lake and Napps LWS and the Ripple Quarry Lake) west of the proposed excavation area.

766. In order to mitigate this potential impact, a groundwater interceptor ditch is proposed around the north, south and eastern periphery of the extraction area (Phases 1 to 9), excavated to the base of the gravel. The interceptor ditch would serve a dual purpose. During the operational phase, the clay-lined ditch would route groundwater around the perimeter of the extraction area, enabling sand and gravel to be worked dry without need for dewatering (except for infrequent rainwater pumping). Secondly, and following restoration of the site, the ditch would be maintained in perpetuity and continue to function in routing groundwater around the periphery of the site, where it would be allowed to infiltrate through the base of the ditch into the underlying sand and gravel aquifer, thereby maintaining the pre-development groundwater through-flow water balance.

767. Groundwater level monitoring is proposed throughout the operational period of the quarry to confirm the integrity of the hydraulic seal around Phase 1 to 9 and to demonstrate the adequacy of the groundwater interception ditch and re-infiltration system.

768. Flexible Working Areas A to B would be worked wet and, therefore, would not require any pumped de-watering or placement of an impermeable clay cut-off wall. As a result, the Assessment considers that the extraction of sand and gravel in these areas would have no effect on groundwater level lowering or flow truncation.

769. With regards to the wet working of Flexible Working Areas A and B, the MPA notes that dry working is most efficient in terms of maximising extraction of sand and gravel, recognising that wet working can result in a maximum of 30% reduction in output compared to dry working. Whilst the MPA considers that this is not ideal, it enables the applicant to work an area of mineral deposits which may otherwise be unacceptable due to the potential impacts upon the adjacent River Severn and LWSs.

770. To mitigate effects of restoring the site with less permeable material (inert waste material), a single elongated infiltration basin is proposed along the western boundary of excavation (Phases 1 to 9). Excess runoff would be discharged from the infiltration basin into the wet woodland proposed on the western perimeter of Phases 1 to 9.

771. Subject to the above mitigation, the Assessment concludes that the proposed development would not increase the risk of flooding within and around the application site and that it would have no detrimental impact on groundwater or surface water flows or quality.

772. In response to queries and objections from local residents and Ripple Parish Council regarding pumping, the applicant has clarified that there would be no groundwater abstraction from the sand and gravel aquifer. In Phases 1 to 9 a clay cut-off would be constructed along the site perimeter and keyed into the underlying mudstone bedrock, to seal the site from the surrounding aquifer. Pumping would be necessary from within this cut-off structure, but only to remove direct rainfall within the site boundary.

773. The Environment Agency have raised no objections to the proposal, subject to the imposition of appropriate conditions requiring a ground and surface water

monitoring scheme; and a scheme for flood storage compensation including flood risk betterment (post scheme) and improvements to flood flow.

774. The Environment Agency also comment in respect of flood risk that sand and gravel workings are classed as 'water compatible' development and although two of the proposed excavation areas do fall within Flood Zone 3 (high probability of flooding), the proposed use is suitable in all flood zones. The majority of the excavation areas are located in Flood Zone 1. The Environment Agency confirm they are generally satisfied with the Flood Risk Assessment. They note there is no mention of conveyance and impacts on flood flow routes but consider that this could be controlled by a condition.

775. In response to comments from local residents in relation to flooding and the proposed drainage regime, the Environment Agency state that in most places the ditch is higher than the design fluvial flood level, so would not be impacted by the River Severn backing up it. In other parts, backing up of the ditch could occur (water will always find a way to reach the peak whether it is through ditches or over land) but is located away from the local properties. There is always a risk that water cannot drain into the River Severn when it is high, although the catchments are so different in size that the peak of the River Severn should not be up when the ditch is peaking.

776. The Environment Agency have also been specifically consulted on the comments from Ripple Parish Council's regarding the importance of Ripple Brook which has not been considered by the application and impacts upon Uckinghall flood relief scheme. The Environment Agency state that the Uckinghall flood defences are designed to a level of 13.2 metres AOD, which represents the 1% AEP flood level. The design flood level at the Bow Farm Quarry is set out in the Flood Risk Assessment. Appendix 13 of the Flood Risk Assessment states *"the peak 1:100-year flood (Flood Zone 3 – 'active floodplain') level, including a 20% climate change allowance, is 13.19 metres AOD. However, for the purpose of this volumetric [flood storage] exercise, the 'active floodplain' is conservatively assumed to be 13.20 metres AOD (rather than 13.19 metres AOD)"*. The Environment Agency consider it is unlikely that the Uckinghall flood defence scheme would be impacted by the proposed works. The Flood Risk Assessment does not show a significant rise in flood levels as a result of the works.

777. With regard to the tributaries (Ripple Brook and Mythe Brook), due to the scale of the Severn floodplain and the influence of the River Severn, any change to levels in the tributaries would be insignificant in comparison. Given the catchment sizes flood events on the River Severn and the two tributaries are not likely to occur at the same time. If flow levels in the River Severn are high, it does not necessarily follow that flow levels in the tributaries would be high, and vice versa. The rivers are likely to behave very differently through different events.

778. The Environment Agency states that with regard to hydrogeology and hydrology they are in agreement with the assessment of potential impacts from this development and are satisfied that any relevant impacts on the water environment could be suitably mitigated against to enable the development to proceed.

779. With regard to the proposed clay bund, which is proposed to be constructed from site won materials extracted from the underlying Branscombe Mudstone Formation, the Environment Agency agree that the Branscombe Mudstone Formation is a good

material to construct the clay bund due to its geological and geotechnical properties. The construction of the cut-off ditches into this clay strata would also provide a good geological foundation to these structures and provide the hydraulic clay cut-off required for this proposal to work effectively and convey water as proposed around the perimeter of the site.

780. In response to concerns from the MPA, the applicant has clarified that there is a sufficient supply on site of clay to construct the proposed clay cut-off.

781. Worcestershire Wildlife Trust raise no objections to the proposal, noting the submitted commentary regarding the use of a clay cut-off wall to reduce the risk of adverse impacts on ground water quality and flow through the nearby LWS and associated habitats, and recommend the imposition of a condition requiring a long-term groundwater monitoring scheme.

782. South Worcestershire Land Drainage Partnership have no objections to the principle of the proposal and recommend the Lead Local Flood Authority is consulted on the proposal. The Lead Local Flood Authority have been consulted in respect of surface water flooding, and have raised no objections, subject to the imposition of appropriate conditions requiring detailed design drawings for surface water drainage and SuDS management plan. Gloucestershire County Council's Lead Local Flood Authority have no objections to the proposal. Severn Trent Water Limited have also raised no objections to the proposal, and do not require any conditions to be imposed, as it would have a minimal impact upon the public sewerage system. The Canal and River Trust wish to make no comments on this application.

783. Based on the advice of the Environment Agency, Canal and River Trust, Lead Local Flood Authority, Gloucestershire County Council's Lead Local Flood Authority, South Worcestershire Land Drainage Partnership and Severn Trent Water Limited, the Head of Planning and Transport Planning considers that the proposal would have no unacceptable adverse effects on the water environment, including flooding, subject to the imposition of appropriate conditions. The Head of Planning and Transport Planning considers that the proposal is in accordance with Policies MLP 37 and MLP 38 of the adopted Worcestershire Minerals Local Plan, Policy WCS 10 of the adopted Worcestershire Waste Core Strategy, and Policies SWDP 28, SWDP 29 and SWDP 30 of the adopted South Worcestershire Development Plan.

Restoration and aftercare of the site

784. Local residents have raised objections regarding the proposed infilling of inert material to restore Phases 1 to 9; consider there is a shortage of inert infill material; questions where the inert material would be sourced from; concerned that the inert material would be downgraded to make up the national shortfall; and concerned that the rate of infilling would not keep pace with mineral extraction.

785. Ripple Parish Council object to the proposal, stating that a prescriptive working and phasing scheme is required, and the MPA should impose a timed restoration condition, which should include monitoring. This should include phasing of the extraction, and a condition restricting imported inert material to not be stockpiled. The Parish Council question if the benefits of restoring the site back to agricultural land outweigh improving drainage around Bow Lane area.

786. Twynning Parish Council object to the proposal raising concerns about the use of potentially hazardous waste for infilling. Bushley Parish Council object to the proposal and note that the inert material does not appear to have been specified in the application.

787. CPRE Gloucestershire also consider that the merits of importing fill should be examined very carefully. They state whilst sound handling, restoration and aftercare of indigenous soils is critical to re-creating BMV agricultural land, verifying the sources and nature of imported inert fill is also a key factor in a high-quality restoration. They also doubt whether the relevant authorities have the resources available adequately to monitor incoming material and to ensure compliance with any agreed standard. It is for these reasons, and because importing fill would add significantly more HGV movements, that they consider that alternative solutions to importing fill should be thoroughly assessed. However, CPRE Gloucestershire acknowledge that there may be tensions between minimising HGV movements and achieving restoration to original profiles, including the potential area of BMV agricultural land which is achievable.

788. The NPPF states in relation to the restoration of mineral workings, *that “planning policies should ensure that worked land is reclaimed at the earliest opportunity, taking account of aviation safety, and that high quality restoration and aftercare of mineral sites takes place”* (paragraph 210 h). It goes on to state that mineral planning authorities should *“provide for restoration and aftercare at the earliest opportunity, to be carried out to a high environmental standards, through the application of appropriate conditions. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances”* (paragraph 211 e). This is reiterated in the National Planning Policy for Waste in relation to landfill sites, which states *“when determining waste planning applications, waste planning authorities should...ensure that land raising, or landfill sites are restored to beneficial after uses at the earliest opportunity and to high environmental standards through the application of appropriate conditions where necessary”* (paragraph 7).

789. The PPG provides more detailed guidance on restoration and aftercare of mineral workings. In particular to ensure that applicants deliver sound restoration and aftercare proposals, the PPG states at Paragraph Reference ID: 27-041-20140306 that *“mineral planning authorities should secure the restoration and aftercare of a site through the imposition of suitable planning conditions and, where necessary, through planning obligations”*.

790. The applicant has submitted details of a restoration scheme for the site in which the land would be primarily progressively restored with the infilling of the void in Phases 1 to 9 with a combination of site derived soils and overburden and approximately 1.4 million tonnes of inert waste materials to return the site to pre-extraction ground levels, except for the western area of the site, which would be restored to a nature conservation area comprising of wetlands and scrapes. In response to comments from Worcestershire Wildlife Trust, County Ecologist and County Landscape Officer who requested a longer-term aftercare and maintenance scheme to that of the proposed 5-year period, the applicant has amended the scheme proposing a 10-year aftercare scheme. A condition is recommended to this effect.

791. In Gloucestershire, following the completion of mineral extraction operations, the plant site and internal haul routes would be removed and largely returned to

agriculture. The silt settlement and clean water lagoons would be retained as wetland features. This would comprise a combination of reedbed planting and natural regeneration. The site access would be retained to provide long-term agricultural access into the site.

792. Policy WCS 5: 'Landfill and disposal' of the adopted Worcestershire Waste Core Strategy identifies that no capacity gap has been identified for the landfill or disposal of waste. The Policy then states that planning permission will not be granted for the landfill or disposal of waste except where it is demonstrated it meets one of the 3 listed criteria. In this instance, it is considered that Part iii) is relevant, which states *"the proposal is essential for operational or safety reasons or is the most appropriate option"*. Paragraph 4.45 of the explanatory text states *"landfill or disposal may also be necessary for a variety of operational or safety reasons. Landfill is often an essential component in the restoration of mineral workings"*.

793. Policy MLP 9: 'Lower Severn Strategic Corridor' of the adopted Worcestershire Minerals Local Plan states that:

"Planning permission will be granted for mineral development within the Lower Severn Strategic Corridor that contributes towards the quality, character and distinctiveness of the corridor through the conservation, delivery and enhancement of green infrastructure networks. A level of technical assessment appropriate to the proposed development will be required to demonstrate how, throughout its lifetime, the development will, where practicable, optimise the contribution the site will make to delivery of the following green infrastructure priorities:

- a) *create wetland features such as fen and marsh, wet grassland, reedbed and lowland meadows during both working phases and as part of restoration and after-use, including where the following characteristic agricultural land uses are incorporated:*
 - *cropping and horticulture in the Settled Farmlands on River Terraces landscape type;*
 - *pastoral land use in the Riverside Meadows and Wet Pasture Meadows landscape types;*
- b) *conserve, enhance and restore characteristic hedgerow patterns and tree cover along watercourses and streamlines;*
- c) *create accessible semi-natural green space, incorporating information or routes which increase the legibility and understanding of the geodiversity, heritage and character of the area.*

Proposals should demonstrate how the development will deliver these priorities at each stage of the site's life, and why the proposed scheme is considered to be the optimal practicable solution. Where site-specific circumstances and/or other policies in the Development Plan limit the ability to deliver one or more of the priorities, this should be clearly set out in the assessment.

Where the proposal would make very limited or no contribution to the delivery of these priorities as a whole, this will only be considered appropriate where the

economic, social and/or environmental benefits of the proposed development outweigh the benefits of delivering the corridor priorities”.

794. The reasoned justification to this policy states:

“Policy MLP 9 sets the priorities for the delivery of multifunctional green infrastructure in the Lower Severn Strategic Corridor. The balance of priorities in this strategic corridor is intended to integrate improvements to floodplain connectivity, either alongside agricultural land uses where these are important to the local economy or the character of the area, or alongside semi-natural green spaces where they enhance existing recreation networks or provide an alternative visitor destination. The priorities have the potential to contribute to multiple green infrastructure components, including improving recreation provision for local communities and delivering social and economic benefits through flood betterment, as well as providing climate change adaptation and mitigation”.

795. It is considered that the proposal would broadly accord with this policy, in that Phases 1 to 9 would be progressively restored to BMV agricultural land (arable), but with Flexible Working Areas A and B being restored to wetland areas for nature conservation purposes, with wetland features including a mosaic of wetland grassland, scrapes and shallows and open water. The proposed restoration of Flexible Working Areas A and B would also provide flood storage benefits. The application states that compared to the current baseline, the proposed restoration would result in the replacement of over 29.7 hectares of agricultural land with biodiversity and nature conservation gain. This includes seeking to establish approximately 16.1 hectares of wet grassland and scrub, approximately 2.5 hectares of wetland marginal habitat, approximately 1.2 hectares of field margins containing floristically rich, tussocky grassland, and approximately 1.6 hectares of deciduous woodland creation, which is proposed in the areas to the west of Phase 1 to 3, west of Phase 9 and along the northern boundary of the proposed processing plant site area. In addition, the proposal would create approximately 2.3 hectares of drainage basin, approximately 2.9 hectares of interceptor ditch, approximately 2.1 hectares of waterbodies and approximately 2 hectares of scrapes. The scheme seeks to preserve and reinstate the characteristic hedgerow patterns where possible. However, overall, there would be a loss of hedgerow length of approximately 587 metres. Fundamental to this overall loss is the removal of approximately 500 metres of internal hedgerow within the Flexible Working Areas. A restoration aim within these areas is to attract ground nesting birds through the delivery of wetland scrapes and grassland. It is considered that the reinstatement of this internal hedgerow would provide a vantage point for predators overlooking the habitat, deterring a primary habitat function. Beyond this, removed hedgerow would be largely reinstated to existing lengths albeit impacted by the inceptor drain and drainage basin along eastern and western boundaries of the arable area (Phases 1 to 9).

796. As the applicant is proposing a progressive restoration scheme, this would enable the land to be brought back into a beneficial afteruse as soon as possible. The submitted LEMP also confirms that the existing perimeter woodland and hedgerows would be included in the aftercare scheme to ensure that the current level of visual screening to the proposed mineral extraction works is maintained throughout the duration of operations.

797. In relation to part c) of Policy MLP 9 it is noted that no additional public rights of way or public access is proposed as part of this restoration scheme. The applicant states that *“the proposed restoration scheme does not intend to create any additional public rights of way or publicly accessible areas. This is owing to the extensive public access available through and adjacent to the site, achievable via public footpaths and bridleways as well as an approximate 60 hectares area of Common Land designation that is fully retained during and post-development. The proximity of the proposed restoration areas, to include wetland and nature conservation enhancement, to publicly accessible areas would serve as a benefit to the enjoyment of this area”*. As recommended by the County Landscape Officer, County Archaeologist and Earth Heritage Trust, a condition is recommended requiring an interpretation strategy for cultural heritage, landscape, ecology and geodiversity.

798. On balance, the Head of Planning and Transport Planning considers that the proposal strikes an acceptable compromise between the reinstatement of BMV agricultural land and the creation of wetland / nature conservation areas, and is, therefore, considered to be essential for operational reasons to be in accordance with Policy WCS 5 of the adopted Worcestershire Waste Core Strategy.

799. Policy MLP 26: ‘Efficient Use of Resources’ of the adopted Worcestershire Minerals Local Plan refers to *“mineral development will be permitted where it is demonstrated that the proposed development will make efficient use of natural resources. A level of technical assessment appropriate to the proposed development will be required to demonstrate that, throughout its lifetime, the proposed development will... c) balance the benefits of maximising extraction with any benefits of allowing sterilisation of some of the resource, taking account of:...the appropriateness of importing fill materials on to site, and the likely availability of suitable fill materials”*.

800. In relation to the availability of suitable fill materials, the applicant states that *“it is anticipated that inert materials would be sourced within a 20-mile radius of the application site, derived within a catchment containing large towns and cities including Worcester, Tewkesbury, Cheltenham and Gloucester. The application site is positioned centrally in relation to these large settlements and benefits from excellent transport links given proximity to the motorway network”*.

801. The applicant also states that *“the need for inert landfill void space (and indeed the proposed sand and gravel) is evident in reviewing development aspirations for the catchment area. The Gloucester, Cheltenham and Tewkesbury Joint Core Strategy, adopted in December 2017, sets out the long-term vision and objectives for the area, shaping new development and their locations up to 2031. The plan period is coincident of the anticipated life of the proposed quarry. Policy SP1 of the Joint Core Strategy sets out the need for new development for the area. The policy outlines a need for 35,175 new homes and delivery of a minimum of 192 hectares of employment land across the plan period”*.

802. The applicant also references Draft Policy SWDPR 1: ‘Employment, Housing and Retail Requirements’ of the emerging South Worcestershire Development Plan Review stating that *“across the plan period, the policy aspires to plan, monitor and manage the delivery of at least 13,957 additional new dwellings and 316 hectares of new employment land”*. In view of this, the applicant considers that the availability of suitable inert material would not be in short supply and would not result in the

diversion of inert waste restoration material from existing sites. The applicant has also submitted 3 letters of support from a prospective customer base, to demonstrate a need for void space for the disposal of inert material.

803. The applicant has clarified that they operate two aggregate recycling facilities at their Netherhills base and at Dairy Farm Quarry, Ashton Keynes. It is, therefore, in their interest to ensure that any opportunity to extract additional value from inert fill / muck away contracts is utilised via these two facilities. In view of this, the applicant has confirmed that where appropriate, material brought to site for restoration purposes would have already been screened at existing aggregate recycling facilities within Gloucestershire. This would limit the potential for disposal of recyclable material in the restoration of the proposed quarry.

804. The materials proposed to be imported to the site would be inert waste materials suitable for direct placement without any pre-treatment required, in accordance with the Environment Agency's Position Statement on the Contaminated Land: Applications in Real Environments (CL:AIRE): 'Definition of Waste: Development Industry Code of Practice'. In order to ensure all loads meet these criteria they would be visually and olfactory examined when brought onto the site prior to being placed. Imported material would also be subject to Waste Acceptance Criteria and the applicant's inert tipping protocol. The Environment Agency have also confirmed that importation of any inert waste material would require an Environmental Permit from them.

805. In response to comments from local residents regarding concerns about potentially downgrading wastes to make them inert and, therefore, suitable as restoration materials. The Environment Agency comment that whilst some natural soils may be contaminated with hazardous elements, there is currently a ban on mixing / blending wastes to simply "dilute" hazardous components down to safe levels. Barring changes to existing environmental protection legislation, any review of current hazardous classifications would of course require very careful technical assessment, it is not simply a case of "relabelling" materials to say they are now "inert".

806. The Head of Planning and Transport Planning notes that letters of representation have been received stating that the submitted working scheme shows phases 1 to 3 not being restored and raising objections on the grounds of open pits being left unrestored. The Head of Planning and Transport Planning notes that the submitted working scheme shows a progressive restoration scheme which does show the mineral extraction areas being progressively restored, including Phases 1 to 3.

807. The Head of Planning and Transport Planning considers that in principle the restoration of part of the site by the importation of inert materials is acceptable in this instance, and the risk of a lack of availability of suitable fill materials can be satisfactorily addressed by the imposition of appropriate conditions relating to phasing, progressive working and restoration schemes, annual surveys of the ground levels, long-term aftercare period and detailed restoration and aftercare schemes. This would ensure that there was limited disturbed land at any one time, and that the site is restored at the earliest opportunity and to high environmental standards. A condition is also recommended requiring the site to be restored within 9 years of commencement of the development.

808. In view of the above matters, the Head of Planning and Transport Planning considers that the proposal is in accordance with Policies MLP 9 and MLP 26 of the adopted Worcestershire Minerals Local Plan and Policy WCS 5 of the adopted Worcestershire Waste Core Strategy.

809. In relation to financial guarantees, the responsibility for the restoration and aftercare of mineral sites lies with the operator, and in case of default the landowner. The applicant is a Member of the Mineral Products Association Restoration Guarantee Fund, which provides guarantees to planning authorities against a restoration default. Paragraph Reference ID: 27-048-20140306 of the PPG states that *“a financial guarantee to cover restoration and aftercare costs will normally only be justified in exceptional cases. Such cases include:*

- *very long-term new projects where progressive reclamation is not practicable, such as an extremely large limestone quarry;*
- *where a novel approach or technique is to be used, but the minerals planning authority considers it is justifiable to give permission for the development;*
- *where there is reliable evidence of the likelihood of either financial or technical failure, but these concerns are not such as to justify refusal of permission.*

However, where an operator is contributing to an established mutual funding scheme, such as the Mineral Products Association Restoration Guarantee Fund, it should not be necessary for a mineral planning authority to seek a guarantee against possible financial failure, even in such exceptional circumstances”. Furthermore, the application proposes progressive restoration over a total of 11 phases, and it is not considered that 9 years to restore the site is very long-term in the context of mineral extraction and restoration. The development does not propose a novel approach or technique to mineral extraction or restoration, and the Head of Planning and Transport Planning has no reason to believe that there is a likelihood of financial or technical failure. Therefore, it is not necessary for the MPA to seek a financial guarantee in this instance.

Economic impact

810. Letters of representation have been received both supporting the proposal and objecting to the proposal on economic grounds. Those in support consider that the proposal would provide job opportunities in the area benefiting the community, note that minerals can only be worked where they are found, and the proposal meets the need for increased aggregate supply which is essential for the construction industry. Objectors to the proposal consider that there would be job losses as the proposal would adversely impact nearby businesses, adversely impacting the local economy.

811. The NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development. Achieving sustainable development means that the planning system has three overarching objectives (economic, social and environmental), which are independent and need to be pursued in mutually supportive ways, so that opportunities can be taken to secure net gains across each of the different objectives. In particular, the NPPF sees the economic role of planning as *“to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure”* (paragraph 8).

812. The NPPF at paragraph 81 states that *“planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development”*.

813. In addition, paragraph 209 of the NPPF states that *“it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation”*. Paragraph 211 of the NPPF states that *“When determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy”*.

814. The applicant states that the proposal is critical to sustaining both the gravel and concrete side of their business, as they estimate they have 2 to 3 years of remaining sand and gravel reserve before all of their operational sites are exhausted. The applicant states they currently have no other mineral sites in the pipeline; therefore, this site is fundamental to their overall business.

815. The applicant anticipates that the proposal would employ 20 full-time members of staff. By creating new job opportunities, the proposal would support communities and thereby provide a social benefit. Furthermore, by providing jobs and a service to other businesses, it would contribute to the local economy. In so far as it provides these social and economic benefits, the proposal would accord with the aims of the NPPF.

816. The adopted South Worcestershire Development Plan sets out targets for growth up the plan period of 2030, including the building of 28,400 new houses, the development of 280 hectares of land for employment, and an additional 39,507 square metres of retail floor space. These developments will require aggregate raw material to allow the various development projects to proceed. Furthermore, the emerging South Worcestershire Development Plan Review sets out updated targets for growth up to the plan period of 2041, including delivery of at least 13,957 additional new dwellings, 316 hectares of new employment land and 2,000 square metres of new retail floorspace.

817. It is also noted that the Minerals Product Association estimates that *“the construction of a typical new house uses up to 50 tonnes of aggregates - from the foundations through to the roof tiles”*. Further aggregates are required for the construction of any supporting infrastructure and in the maintenance and refurbishment of the existing housing stock and other types of development. But broadly, based on this figure of 50 tonnes, the proposed development would provide enough aggregate for the construction of approximately 30,000 homes.

818. The Head of Planning and Transport Planning acknowledges that the NPPF affords significant weight to the need to support economic growth and notes that paragraph 209 of the NPPF states that *“it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs”*. Paragraph 217 of the NPPF also states that *“when determining planning applications, great weight should be given to the benefits of the mineral extraction, including to the economy”*. It is considered that the proposal would provide a small

number of direct employment opportunities, as well as contributing to the wider growth aspirations for the county through the supply of local aggregates to the construction market. Therefore, it is considered that the proposal would provide substantial sustainable economic growth benefits to the local economy in accordance with the NPPF and this weighs in its favour.

Climate change and sustainability

819. It is acknowledged that both Malvern Hills District Council declared a climate emergency in July 2019 and that Worcestershire County Council declared a climate emergency in July 2021 and a commitment to tackle its own impacts on climate change through the Worcestershire County Council Net Zero Plan (2020).

820. Policy MLP 26: 'Efficient Use of Resources' of the adopted Worcestershire Minerals Local Plan states that *"mineral development will be permitted where it is demonstrated that the proposed development will make efficient use of natural resources. A level of technical assessment appropriate to the proposed development will be required to demonstrate that, throughout its lifetime, the proposed development will: a) minimise use of water and energy in buildings, plant and transport; b) optimise on-site energy generation from renewable and low-carbon sources; and c) balance the benefits of maximising extraction with any benefits of allowing sterilisation of some of the resource..."*

821. Policy WCS 1: 'Presumption in favour of sustainable development' of the adopted Worcestershire Waste Core Strategy sets out a presumption in favour of sustainable development and how it should be applied locally.

822. Policy WCS 11: 'Sustainable design and operation of facilities' of the adopted Worcestershire Waste Core Strategy states that *"waste management facilities will be permitted where it is demonstrated that the design of buildings, layout, landscaping and operation of the facility, and any restoration proposals take account of sustainable development practices and climate change mitigation and resilience through: ...b) reducing water demand where possible and considering water efficiency in the design and operation of all new built development; and c) reducing energy demand where possible and considering energy efficiency in the design and operation of all new built development; and ...e) the consideration of land stability and subsidence; and f) landscaping which enhances, links and extends natural habitats, reflects landscape character or acts as a carbon 'sink'"*.

823. Policy SWDP 28: 'Management of Flood Risk of the adopted South Worcestershire Development Plan states in relation to FRAs that they *"will...include appropriate allowance for climate change"*.

824. In relation to climate change the NPPF states that *"the planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure"* (paragraph 152).

825. Achieving sustainable development is a fundamental objective of the NPPF. Paragraph 8 of the NPPF states:

“Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

*a) **an economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*

*b) **a social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and*

*c) **an environmental objective** – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.*

These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area”.

826. In defining the economic objectives of the proposal, the applicant states that *“it is considered that the extraction of mineral at the site is the “right type” of development, on account of the high-grade underlying sand and gravel resource; it is the “right place” for mineral development given its position within the Lower Severn Strategic Corridor and Area of Search for sand and gravel resources; and is the “right time” for the development owing to the proven demand for 11.5 million tonnes of sand and gravel within Worcestershire over the next 15 years”.*

827. In addition, the applicant states that *“the proposed development provides for local and regional economic benefits through additional employment (estimated that up to 20 employees would be needed to manage and operate the site) and supply of sand and gravel resources and by-products to the wider region”.*

828. In terms of social objectives, the applicant states that this *“without providing the raw materials to enable required development, the ‘social’ objective of the NPPF cannot be delivered”.*

829. In terms of the environmental objectives of the proposal, the applicant states *“during site operations, a range of mitigation and attenuation measures would be employed to control adverse effects upon the natural, built and historic environment. These are assessed in detail within the submitted ES. Following the temporary operation, the restored mineral site would result in significant biodiversity gains whilst*

retaining high-grade agricultural land. Added to this, restoration of areas of the site to a lower level would provide for additional flood storage capacity”.

830. The ES identifies that the scheme restoration would increase the river catchment resilience to extreme weather events and future climate warming.

831. The applicant states that *“the extraction and processing of sand and gravel reserves can be a water-intensive operation. However, the proposed extraction process would avoid the need for dewatering through the construction of a clay wall around the perimeter of the extraction area. Furthermore, the processing of the extracted material would recycle water through a series of silt settlement and clean water lagoons. On this basis, the extraction and processing of material would minimise use of water and ensure the resource is used effectively and efficiently”.*

832. The applicant states that *“the proposed development has undergone an iterative design process in order to maximise access to the underlying sand and gravel resource; limit and mitigate adverse environmental and amenity impacts and provide for an array of post-restoration benefits. Sustainable measures introduced to the development scheme include use of a conveyor system to limit requirements for dump truck movements across the site, removal of ‘Flexible Working Area C’ due to ecological sensitivity of the land, and a surface water management scheme to maintain site drainage characteristics post restoration”.* The applicant also evidences that climate changes was taken into account into the drainage design and excess of 28 hectares of land would be dedicated to the creation of habitat for biodiversity gain.

833. The ES states that the proposed site *“restoration contributes to climate adaptation through enhancing and expanding the range of semi-natural habitats on-site, including open water, wetland habitat, grassland, woodland and hedgerow, all of which will aid carbon sequestration/management and resilience to extreme weather events”.*

834. The applicant also states that *“they are conscientious of climate change and carbon footprint associated with mineral extraction operations. This is evidenced by the company being accredited ISO 14001:2015 Environmental Management System (EMS). ISO 14001:2015 EMS is a systematic framework to manage the immediate and long-term environmental impacts of an organisation’s products, services and processes. By completing ISO 14001 certification, receipt organisations can assure stakeholders that the environmental management system meets international industry specific environmental standards. ISO 14001 environmental certification provides a framework for environmental management best practice to help companies:*

- *Minimise their environmental footprint*
- *Diminish the risk of pollution incidents*
- *Ensure compliance with relevant environmental legislation; and*
- *Develop their business in a sustainable manner*

835. *Accreditation of ISO 14001 is audited annually to ensure services continue to meet the requirement of the relevant standards. To maintain standards, the Cullimore Group has implemented an Environmental Policy Statement”.*

836. Gloucestershire Wildlife Trust comment that much of the land on the Gloucestershire side of the border is proposed to return to arable use following

extraction. The restoration plan on the Gloucestershire side of the border should revert more land to semi-natural habitat in order to compensate for the ecological and climate impacts of the extraction. Considering the carbon impact of this activity, Gloucestershire Wildlife Trust also asks for a carbon audit of the scheme. Twynning Parish Council and letters of representation also request a carbon offset plan.

837. The Head of Planning and Transport Planning notes that there are no adopted policies in the Development Plan for the area that expressly require a carbon audit or carbon offset plan. Furthermore, the ES does not have to contain every last possible detail of environmental information. It only needs to cover the “main effects” or “likely significant effects”. It is considered that the effects of climate change and the vulnerability of the development proposal to these changes has been adequately considered as part of the preparation of the ES and supporting documents, particularly in terms of the air quality, hydrology / flood risk and ecology. The effects upon air quality are considered further in the ‘Residential amenity’ section of this report, the effects of hydrology / flood risk is considered further in the ‘Water environment and flood risk’ section of this report and the proposed restoration scheme and biodiversity enhancements are considered in detail in the ‘Ecology, biodiversity and geodiversity’ and ‘Restoration and aftercare of the site’ sections of this report, and considered acceptable subject to the imposition of appropriate conditions. The proposed restoration in the administrative area of Gloucestershire and is a matter for Gloucestershire County Council to consider.

838. Given that the proposal is well located close to the potential markets it would serve; located close to the primary road network; the applicant is proposing use of conveyors where possible to reduce dump truck movements across the site and thereby reduce vehicle emissions; on site recycling of water; the restoration scheme would make provision for SuDS; flood risk betterment; extensive habitat creation; and reinstatement of BMV agricultural land. In view of this, the Head of Planning and Transport Planning considers that overall, the proposal would contribute to achieving sustainable development and mitigating and adapting to climate change, in accordance with Policy MLP 26 of the adopted Worcestershire Minerals Local Plan, Policy WCS 11 of the adopted Worcestershire Waste Core Strategy, and Policy SWDP 28 of the adopted South Worcestershire Development Plan.

Cumulative effects

839. Letters of representations objecting to the proposal on cumulative effects grounds have been received stating that the cumulative impact of the excavations, the phasing of the proposal and the processing and the use of the batching plant would significantly increase the volume of HGV journeys to and from the site with adverse effects greatly outweighing the benefits.

840. Ripple Parish Council also object to the proposal on the grounds of cumulative effects stating that for over a decade Ripple Parish has been host to a number of mineral working. They consider that these proposals for a further 9 years of mineral extraction at Bow Farm would not comply with the NPPF, namely *“to ensure that permitted and proposed operations do not have an adverse impact on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in the locality”* (paragraph 210 f) of the NPPF). Ripple Parish Council consider the proposal does not accord with the adopted Minerals Local Plan for Gloucestershire, in particular Policy DM02: ‘Cumulative impact’. Ripple Parish Council also raised concerns regarding

cumulative noise, dust, air quality and health impacts associated with the simultaneous working of the proposed Bow Farm Quarry and Ripple East Quarry.

841. Regulation 4 (2) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 states that the Environmental Impact Assessment must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on a number of factors this includes the interaction between the factors of population and human health, biodiversity, land, soil, water, air and climate, material assets, cultural heritage and the landscape. Schedule 4, Part 5 states in relation to information for inclusion within ESs, this includes *“the cumulation of effects with other existing and / or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources”*.

842. This is reiterated in the PPG at Paragraph Reference ID: 4-024-20170728, which states that *“each application (or request for a screening opinion) should be considered on its own merits. There are occasions, however, when other existing or approved development may be relevant in determining whether significant effects are likely as a consequence of a proposed development. The local planning authorities should always have regard to the possible cumulative effects arising from any existing or approved development”*.

843. Cumulative effects result from combined impacts of multiple developments that individually may be insignificant, but when considered together, could amount to a significant cumulative impact; as well as the inter-relationships between impacts – combined effects of different types of impacts, for example noise, air quality and visual impacts on a particular receptor.

844. With regards to inter-relationships between impacts, it is considered that based upon the studies and content of the individual chapters within the submitted ES, the underlying conclusion is that there is no single topic or combination of issues which should objectively prevent the development from proceeding.

845. With regard combined impacts of multiple developments, the ES has considered the effects that are likely to result from the proposed development in combination with other projects and activities that are being, have been or will be carried out, including the following types of projects:

- Existing completed projects
- Approved but uncompleted projects
- On-going activities
- Plans or projects for which an application has been made and which are under consideration by the consenting authorities
- Plans or projects which are reasonably foreseeable, i.e., projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects’

846. The ES concluded that the applicant is not aware of any of the above plans or projects that require due consideration as part of this development proposal and is

not aware of any anticipated development proposal likely to result in any adverse cumulative impacts upon the surrounding environment.

847. Notwithstanding the above, since the submission of the proposed Bow Farm Quarry application and the above conclusions, a separate planning application has been submitted to the County Council by CEMEX for “*proposed extraction of sand and gravel with restoration to agriculture and nature conservation, including ponds, wetlands, hedgerows and lowland mixed deciduous woodland and meadows on land at Ripple East, Bow Lane, Ripple, Worcestershire*” (MPA Ref: 22/000015/CM).

848. The Ripple East Quarry proposal seeks to extract approximately 475,000 tonnes of sand and gravel in a total of 3 phases at an approximate rate of 300,000 tonnes per year. Aggregates extracted from the site would be hauled beneath the Motorway and stored at the existing wharf for onward transportation by barge to CEMEX’s operational facility at Ryall House Farm Quarry, for further processing and onward delivery to the construction industry. CEMEX do not propose any mineral extraction to the south of the M50 Motorway. The land would be progressively restored using on site derived overburden and soils to wetlands, nature conservation and agriculture. The land would be worked and restored over an approximately 3-year period. The majority of the Ripple East Quarry application site is located immediately north of the M50 Motorway and west of Bow Lane, with a section of the application site covering the wharf, barge loading and surge pile adjacent the River Severn (south of the M50 Motorway and west of the restored Ripple East Quarry). The Ripple East Quarry application site is located approximately 50 metres north of Bow Farm Quarry application site.

849. Whilst the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 and Government’s PPG only require the consideration of cumulative impacts of existing or approved development, to ensure a robust consideration of the Bow Farm Quarry application, the applicant wrote to the MPA submitting additional information in the form of an addendum to the ES. The addendum provides an assessment of the potential for cumulative impacts resulting from the simultaneous operation of the proposed quarry at Bow Farm and the neighbouring proposed Ripple East Quarry. The addendum includes a suite of technical notes providing a peer review of the CEMEX ES and cumulative assessment of the following:

- Dust and air quality
- Noise
- Hydrology and flooding
- Landscape and visual impact
- Ecology
- Archaeology and cultural heritage

850. In terms of transport cumulative effects as a result of Ripple East and Bow Farm Quarry operating simultaneously, this has been scoped out of further consideration as there is considered no likelihood of significant cumulative transport effects, due to the sand and gravel being transported by barge from Ripple East Quarry to the existing processing plant at Ryall House Farm Quarry, and the exports of processed sand and gravel from Ryall House Farm would not increase as a result of Ripple East Quarry (should planning permission be granted).

851. In summary, the addendum demonstrates that no significant adverse effects would arise from the simultaneous working of the proposed Bow Farm and Ripple East Quarries. This is in large part due to the M50 Motorway acting as an attenuation buffer between the two sites. In cumulatively assessing the Ripple East Quarry proposal, the addendum also demonstrates that no conclusions previously reached within the Bow Farm Quarry ES require alteration, and there is also no need for any additional or revised mitigation embedded within the working and restoration scheme.

852. The MPA carried out further consultation on the addendum to the ES, and it is noted that the relevant technical consultees confirmed their comments remained unchanged.

853. In view of the above, the Head of Planning and Transport Planning does not consider that the cumulative impact of the proposed development would be such that it would warrant a reason for refusal of the application.

Prematurity

854. Twynning Parish Council and letters of representation object to the proposal on the grounds of prematurity, in particular the proposal coming forward before the adoption of the Worcestershire Minerals Local Plan and emerging Mineral Site Allocations DPD.

855. As set out earlier, planning law requires that applications for planning permission be determined in accordance with the Development Plan, unless material considerations indicate otherwise. Paragraphs 48 to 50 of the NPPF sets out how weight may be given to policies in emerging plans, and the limited circumstances in which it may be justified to refuse an application on the basis that it is premature.

856. The NPPF states that *“arguments that an application is premature are unlikely to justify a refusal of planning permission other than in the limited circumstances where both:*

- a) the development proposed is so substantial, or its cumulative effect would be so significant, that to grant permission would undermine the plan-making process by predetermining decisions about the scale, location or phasing of new development that are central to an emerging plan; and*
- b) the emerging plan is at an advanced stage but is not yet formally part of the Development Plan for the area”* (paragraph 49).

857. The NPPF goes on to state that *“refusal of planning permission on grounds of prematurity will seldom be justified where a draft plan has yet to be submitted for examination; or – in the case of a neighbourhood plan – before the end of the local planning authority publicity period on the draft plan. Where planning permission is refused on grounds of prematurity, the local planning authority will need to indicate clearly how granting permission for the development concerned would prejudice the outcome of the plan-making process”* (paragraph 50). This is reiterated within the PPG Paragraph Reference ID: 21b-014-20190315.

858. The Head of Planning and Transport Planning notes that the Worcestershire Minerals Local Plan was adopted by the County Council on 14 July 2022 and now forms part of the Development Plan, replacing the minerals policies in the County of

Hereford and Worcester Minerals Local Plan. The Head of Planning and Transport Planning considers that on the whole, the proposal is broadly in accordance with the adopted Worcestershire Minerals Local Plan.

859. It is considered that as the emerging Mineral Site Allocations DPD is at an early stage of preparation, and has not been subject to consultation, tested at examination or adopted by the County Council, that it should be given very limited weight in the determination of this application.

860. In view of the above, the Head of Planning and Transport Planning considers that refusal of planning permission on the grounds of prematurity could not be justified in this instance.

Other matters

Impact upon tourism

861. Letters of representation have been received objecting to the proposal on the grounds of adverse impacts upon tourism, particularly Puckrup Hall Hotel and Golf Course. Noting the conclusions of the submitted ES and associated assessments and the conclusions of this report, particularly in relation to residential amenity (including noise, dust, air quality, vibration, lighting and health impacts), landscape character and appearance of the local area, traffic, highway safety and impact upon public rights of way, and restoration and aftercare of the site, which are considered to be acceptable subject to the imposition of appropriate conditions. The Head of Planning and Transport Planning considers that refusal of planning permission on the grounds of adverse impacts upon tourism could not be justified in this instance.

Site security

862. With regard to site security the applicant states that they would implement company protocols to maintain site security during non-working hours. The applicant has confirmed that they would instigate routine daily checks of any boundary, perimeter and gated access to ensure they remain fit for purpose. All entrances would be locked when not in use. Facilities in the form of steel containers would be in use within the proposed processing plant site area to store valuable plant and machinery. Mobile plant / machinery would be fitted with tracking capabilities.

863. The applicant has confirmed that the proposal does not include measures to enclose the site with perimeter fencing. This is owing in part due to interaction between the site and areas of open access or public right of way. Nonetheless, any particularly accessible areas (which are not permitted public access) would be blocked by bunding or temporary post-and-rail fencing. The proposed processing plant site would also be bound by 4 metre and 5-metre-high perimeter storage bunds.

864. With regard to Closed Circuit Television (CCTV) the applicant has confirmed that subject to reasonable broadband capability, the proposed processing plant site and site access would be monitored by CCTV. This would be remotely monitored outside of hours of operation.

865. The applicant states that they have operated a number of sites which interact with public rights of way, and in their experience, the presence of public rights of way within the boundaries of a quarry has not resulted in anti-social behaviour during non-operational hours.

866. West Mercia Police have been consulted and raise no concerns or objections with this application in relation to issues of crime and disorder.

867. Gloucestershire Constabulary comments that the applicant's submitted protocols in relation to crime and security offers hints in the right direction but lacks any level of detail. They request further information and clarification is provided, preferable prior to the determination of the application regarding boundary treatments and their specifications. They also consider that CCTV should be used to monitor more areas of the site, including gates and site offices and requests further details.

868. In view of the above, it is considered that the proposal is acceptable in terms of its impact upon crime and antisocial behaviour, subject to conditions requiring details of boundary treatments and CCTV, as recommended by Gloucestershire Constabulary.

Utilities / pipelines

869. A 11kV overhead electricity lines crosses part of the site in Worcestershire, predominantly located in the north-east and south-east of the main extraction area (broadly Phases 1, 2, 3, 4, 6 and 7).

870. The applicant states that they would enter into discussions with Western Power Distribution to either provide the appropriate stand-off from the overhead lines and thus pursue a compensation claim for the existence of the pylons, or Western Power Distribution would divert the overhead lines at their cost.

871. Western Power Distribution have been consulted and they raise no adverse comments to the proposal, stating that the applicant should contact them should any diversions be required. They also state that any excavations in the vicinity of their apparatus should be carried out in accordance with the document titled: 'HSE Executive Guidance HS(G)47, Avoiding Danger from Underground Services' and 'GS6, Avoidance of Danger from Overhead Electric Lines'.

872. Cadent Gas Ltd have been consulted as their gas assets are in close proximity to the application site, and they raise no objections to the proposal from a planning perspective.

873. Gigclear Ltd, Zayo Group UK Ltd and Wales and West Utilities also have apparatus located outside but in close proximity to the application site, situated within the public highway in Gloucestershire.

874. An underground Exolum Pipeline System oil pipeline and DIO redundant oil pipeline are also located in Gloucestershire running north to south though the application site on land between the proposed processing plant site and the access onto the A38. The pipelines are located outside the proposed extraction boundary.

875. According to the Environment Agency's records, the Exolum Pipeline System oil pipeline is notified as a COMAH pipeline. The Environment Agency state that the developer is advised to check with the pipeline operator to inform land use planning and before proceeding. HSE has been consulted and comments that the proposed development does not lie within a consultation distance of a major hazard site or

major accident hazard pipeline, therefore, HSE does not need to be consulted on this proposal.

876. The applicant states that they have been in dialogue with advisors of the pipelines, which has the potential to be affected by the haul route. As a result, the proposal now includes a short Bailey bridge over the location of the pipelines to maintain integrity of the underground pipes throughout the duration of works.

877. DIO state that their pipeline has been declared redundant and the necessary legal charges have been removed. Should works be required in close proximity to the pipeline they recommend that the applicant seek the advice of a specialist pipeline contractor by contacting the Pipeline Industries Guild.

878. Exolum Pipeline System confirm that their previous objection comments are withdrawn following discussions with the applicant. They request that the applicant contacts them to discuss the proposal and enter into a Works Consent.

879. As the pipelines and above apparatus are located in Gloucestershire, it is a matter for Gloucestershire County Council to consider if the impact of the proposal is acceptable upon these assets, but it is noted that no adverse comments have been received from Gigclear Ltd, Zayo Group UK Ltd, Wales and West Utilities, DIO or Exolum Pipeline System.

880. In view of the above, the Head of Planning and Transport Planning is satisfied that the proposed development would not have an unacceptable impact upon utilities.

Adequacy of the ES and Environmental Impact Assessment team and expertise

881. Letters of representation have been received objecting to the proposal on the grounds that the ES is inadequate and should be disregarded as it has been completed by the applicant's consultants, and not independent consultants.

882. The Head of Planning and Transport Planning notes that the aim of Environmental Impact Assessment is to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision-making process. The aim of Environmental Impact Assessment is also to ensure that the public are given early and effective opportunities to participate in the decision-making procedures.

883. The ES must include at least the information reasonably required to assess the likely significant environmental effects of the development specified in Regulation 18 (3) and meet with the requirements of Regulation 18 (4) and include any additional information specified in Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, which is relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.

884. The applicant is responsible for the preparation of the ES. In order to ensure the completeness and quality of the ES, Regulation 18 (5) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires the applicant to ensure that the ES is prepared by competent experts, and the ES must

be accompanied by a statement from the developer outlining the relevant expertise or qualifications of such experts. This is in order to ensure the completeness and quality of the ES.

885. The ES was compiled and coordinated by David Jarvis Associates Ltd, a multidisciplinary consultancy specialising in planning and design, and a registered practice of the Landscape Institute. It has a team of professional chartered town planners, urban designers and landscape architects. As part of the submission the applicant included the qualifications and membership to professional bodies of the authors of each of the chapters of the ES.

886. In view of this, the Head of Planning and Transport Planning is satisfied that the applicant has engaged competent experts to prepare the ES. The Head of Planning and Transport Planning has also reviewed the ES and accompanying documents and undertaken extensive public and technical consultation on the submission. Taking into account the submitted ES, the Regulation 25 Submissions (further information) and consultation responses, the Head of Planning and Transport Planning is satisfied with the adequacy of the ES and considers it accords with Regulations 18 (3) and 18 (4) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.

Monitoring and enforcement

887. The Environment Agency have confirmed that the importation of any inert waste post extraction is a landfilling activity which would require an Environmental Permit under the Environmental Permitting Regulations, which would be monitored by the Environment Agency.

888. The County Council, as the County Planning and MPA also has a Planning Monitoring and Enforcement Officer who investigates alleged breaches of planning control in relation to minerals and waste management development. Furthermore, the MPA carry out proactive monitoring of minerals and landfill sites, as under Regulation 15 of the Town and Country Planning (Fees for Applications, Deemed Applications, Requests and Site Visits) (England) Regulations 2012 (as amended), MPAs dealing with County Matter applications can charge to monitor mineral and landfill permissions. This covers initial implementation to the end of the period of aftercare required by a condition of the planning permission (Paragraph Reference ID: 22-046-20180222 of the PPG).

889. It should be noted that the imposition of a condition is recommended should planning permission be granted, requiring the applicant to submit a scheme that sets out measures for liaison arrangements with the local community, and for this local liaison to be carried out for the duration of the development.

Consultation

890. Letters of representation have been received objecting on the grounds of inadequacy of the applicant's pre-application public consultation.

891. It is noted that there is no statutory requirement for applicants to undertake pre-application public consultation on such applications. However, it is considered good practice for applicants to undertake public consultation on all application proposals at the pre-application stage. This is emphasised by the NPPF (paragraphs 39 and 40) and in the County Council's Statement of Community Involvement (October 2021).

892. The application was accompanied by a Statement of Community Involvement, which states that the applicant held a public consultation event at Ripple Parish Hall on 28 February 2019 (12:00 to 20:30 hours). Pre-event publicity included pre-notifications to officers and Members from Gloucestershire and Worcestershire County Councils, Malvern Hills District Council and Tewkesbury Borough Council; Parish Councils; local MPs; local business and groups; nearest local residents; and the local media. The event was staggered into a statutory consultee preview (attended by 11 people), local residents preview for the nearest local residents who could be potentially most affected by the proposal (attended by 10 people) and open to the general public (attended by 40 people).

893. A total of 23 feedback forms were received during the event. The applicant's Statement of Community Involvement identified that the main concerns were associated with vehicle movements on and access to the A38. Concerns were also raised regarding impacts upon groundwater / surface water and flooding; amenity, in particular noise and dust; restoration and public access; processing facility and the close proximity to areas of habitation and leisure; and need for sand and gravel. The applicant states whilst there were some concerns expressed by the local community, in general the feedback indicates the attendees were pleased to have the opportunity to view and comment on the proposals.

894. The statutory requirements for consultation on planning applications by local planning authorities are outlined in the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended), the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended by the Town and Country Planning (Development Management Procedure, Listed Buildings and Environmental Impact Assessment) (England) (Coronavirus) (Amendment) Regulations 2020 and subsequent Town and Country Planning (Local Planning, Development Management Procedure, Listed Buildings etc.) (England) (Coronavirus) (Amendment) Regulations 2020.

895. The statutory requirement is for a site display in at least one place on or near the land to which the application relates for not less than 30 days and by publication of the notice in a newspaper circulating in the locality in which the land to which the application relates is situated.

896. For the consultations that took place in December 2019 – January 2020; January 2022 – February 2022; and June – July 2022, 9 Public Notices were erected on and in the vicinity of the application site; a Press Notice was published in the Gloucestershire Citizen & Echo, giving at least 30 days' notice and neighbour consultation letters were sent out to local residents / businesses in both Worcestershire and Gloucestershire. Copies of Public Notices were also sent to the Parish Councils and neighbouring Parish and Town Councils so that they could be displayed on notice boards or similar in the local area.

897. The public consultation that took place in August 2020 – October 2020 was undertaken in accordance with Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended by The Town and Country Planning (Development Management Procedure, Listed Buildings and Environmental Impact Assessment) (England) (Coronavirus) (Amendment) Regulations 2020. For the consultation that took place in April 2021 – May 2021,

public consultation was undertaken in accordance with Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended by The Town and Country Planning (Local Planning, Development Management Procedure, Listed Buildings etc.) (England) (Coronavirus) (Amendment) Regulations 2020. This was because the applicant was not able to make copies of an ES available at a named address because it was not reasonably practicable to do so for reasons connected to the effects of coronavirus, including restrictions on movement. For these consultations, additional methods of consultation were undertaken to that listed above, including publishing details of the application on the County Council's social media accounts and the applicant writing to the local residents, businesses and stakeholders on their consultation database.

898. In view of this, the Head of Planning and Transport Planning is satisfied that the MPA has complied with the appropriate procedures.

Human Rights Act 1998

899. Letters of representation have been received objecting to the proposal on the grounds of adverse impacts upon Human Rights, in particular Article 8.

900. Article 8 of the Human Rights Act 1998 (as amended) states that everyone has the right to respect for his private and family life. A public authority cannot interfere with the exercise of this right except where it is in accordance with the law and is necessary (amongst other reasons) for the protection of the rights and freedoms of others. Article 1 of Protocol 1 of the Act entitles every natural and legal person to the peaceful enjoyment of his possessions.

901. The law provides a right to deny planning permission where the reason for doing so is related to the public interest. Alternatively, having given due consideration to the rights of others, the local planning authority can grant planning permission in accordance with adopted policies in the Development Plan.

902. All material planning issues raised through the consultation exercise have been considered and it is concluded that by determining this application the County Planning Authority would not detrimentally infringe the human rights of an individual or individuals.

Obligations under the Equality Act 2010

903. The MPA in carrying out its duties must have regard to the obligations placed upon it under the Equality Act and due regard has, therefore, been had to the requirements of Section 149 (Public Sector Equality Duty) to safeguard against unlawful discrimination, harassment, victimisation and any other conduct prohibited by the Act. It also requires public bodies to advance equality of opportunity between people who share a protected characteristic and people who do not share it; and foster good relations between people who share a protected characteristic and people who do not share it. The Head of Planning and Transport Planning considers that the proposed development would not give rise to significant adverse effects upon the communities in the area or socio-economic factors, particularly those with 'protected characteristics' by virtue that the impacts of the proposal can be mitigated so that they would not have a significant impact on groups with 'protected characteristics'.

Other points

904. Concerns have been raised by local residents that their house prices would be adversely affected by the proposal. The Head of Planning and Transport Planning notes their concerns but advises Members that property values are not a relevant material consideration in the determination of this planning application.

905. Ripple Parish Council request the applicant contributes funding for improvements to Ryall Recreation Ground and a recreation area for the community. However, the Head of Planning and Transport Planning considers that this would not pass the tests for planning obligations (necessary to make the development acceptable in planning terms; directly related to the development; and fairly and reasonably related in scale and kind to the development). As set out at paragraph 57 of the NPPF, planning obligations must only be sought where they meet all of these tests.

Summary

The Proposal

906. The proposal seeks planning permission for extraction of sand and gravel with restoration using site derived and imported inert material at Bow Farm, Bow Lane, Ripple, Worcestershire.

907. The application site straddles the administrative boundaries of Worcestershire and Gloucestershire. Parallel applications have been submitted to both Worcestershire County Council and Gloucestershire County Council. The majority of the mineral extraction is proposed within Worcestershire, with the proposed processing plant site and access onto the A38 within Gloucestershire (Gloucestershire County Council Ref: 19/0081/TWMAJM).

908. The proposed development is seeking to extract approximately 1.44 million tonnes of sand and gravel, that would be extracted at an estimated rate of approximately 250,000 tonnes per year. It is estimated that the site would be exhausted of mineral and restored within 9 years of the commencement of the development.

909. The site would be progressively restored using a combination of site derived soils, overburden and imported inert waste material. The application submission defines imported inert waste as *“including uncontaminated or treated sub-soils, as well as construction, demolition and excavation waste such as, but not limited to concrete; bricks; tiles; and ceramics that will not undergo any physical, chemical or biological transformations of significance and will not give rise to environmental pollution or risk harm to human health as a result of coming into contact with other matter”*. Approximately 1.4 million tonnes of inert waste material would be required to return Phases 1 to 9 back to pre-extraction levels. The estimated annual rate of disposal would be about 165,222 tonnes per year.

910. The flexible working areas are proposed to be worked wet (i.e., without dewatering). Flexible Working Areas A and B would be restored using site derived soils and overburden only, thereby returning the land to a lower level than pre-extraction conditions.

Worcestershire's landbank of sand and gravel reserves

911. Paragraph 213 of the NPPF states “*minerals planning authorities should plan for a steady and adequate supply of aggregates by...maintaining landbanks of at least 7 years for sand and gravel...whilst ensuring that the capacity of operations to supply a wide range of materials is not compromised*”. As required by the NPPF the County Council has produced a Local Aggregate Assessments (LAA), to assess the demand for and supply of aggregates in Worcestershire.

912. The LAA (published February 2022) covers the period up to 31 December 2020 and, in accordance with the NPPF (paragraph 213), calculates annual provision requirements on a rolling average of 10 years' sale data in Worcestershire and other relevant local information. The annual production guideline for sand gravel identified by the LAA is 0.853 million tonnes. Based on this production guideline and the stock of permitted reserves of approximately 2.504 million tonnes of sand and gravel, Worcestershire had a landbank of approximately 2.94 years on 31 December 2020. This is below the 7-year landbank required by national policy and indicates that there is currently a shortfall of permitted reserves in the county.

913. Since 31 December 2020, the MPA granted planning permission on 25 March 2021 (MPA Ref: 18/000036/CM, Minute No. 1069 refers) for a proposed sand quarry, on land adjacent to former Chadwich Lane Quarry, Chadwich Lane, Bromsgrove. Based on the proposed extraction of approximately 1.35 million tonnes per year, this has increased the landbank by approximately 1.58 years.

914. Assuming production guideline for sand and gravel set out in the LAA (0.853 million tonnes) continued in 2021, then the landbank of permitted reserves on 31 December 2021 would be approximately 3.001 million tonnes of sand and gravel, equating to about 3.52 years. Consequently, on 31 December 2021 Worcestershire did not have sufficient reserves of sand and gravel available with planning permissions to meet its annual production guidelines based on sales and other relevant local information, in accordance with national planning policy and guidance.

915. Since 31 December 2021, the MPA granted planning permission on 8 July 2022 (MPA Ref: 21/000029/CM, Minute No. 1102 refers) for the proposed importation of inert restoration material and extraction of approximately 245,000 tonnes of sand to enable engineering operations for stability purposes and completion of site restoration at (Western portion of the former) Sandy Lane Quarry, Wildmoor. This has increased the landbank by approximately 0.29 years.

916. Assuming production guideline for sand and gravel set out in the LAA (0.853 million tonnes) continued in 2022, then the landbank of permitted reserves on 30 September 2022 would be approximately 2.606 million tonnes of sand and gravel, equating to about 3.06 years. Consequently, at the time of the determination of this application, Worcestershire has a land landbank of sand and gravel reserves below the minimum 7-years required by national policy and indicates that there is currently a shortfall of permitted reserves in the county.

917. Should this planning application be granted permission, it would increase the landbank by approximately 1.69 years, equating to a landbank of approximately 4.75 years, which is still below the minimum landbank for at least 7 years for sand and gravel.

918. It is considered that the proposal would contribute to providing a balanced geographical spread of mineral reserves and provide an additional mineral site, contributing to a steady and adequate supply of mineral and adding to resilience to the mineral supply in Worcestershire, which is currently provided by a limited number of active sites. In view of this, it is considered the proposal is consistent with paragraph 213 f) of the NPPF, as it would contribute towards the MPA's landbank for sand and gravel.

Location of the development

919. Paragraph 209 of the NPPF states that *“since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation”*.

920. The Government's PPG further states that *“planning for the supply of minerals has a number of special characteristics that are not present in other development: minerals can only be worked (i.e., extracted) where they naturally occur, so location options for the economically viable and environmentally acceptable extraction of minerals may be limited...”* (Paragraph Reference ID: 27-001-20140306).

921. Policy MLP 1: 'Spatial Strategy' of the adopted Worcestershire Minerals Local Plan sets out a spatial strategy for the location of minerals extraction, seeking to direct such development within the Strategic Corridors. The proposed development would be located within the 'Lower Severn Strategic Corridor' as shown and defined on the Minerals Local Plan Policies Map, in accordance with Policy MLP 1 of the adopted Worcestershire Minerals Local Plan.

922. The adopted Worcestershire Minerals Local Plan designates “areas of search”, and Policy MLP 3 sets out a policy framework in how to consider applications within and outside “areas of search” but located in Strategic Corridors.

923. Phases 1 to 9 of the proposal would be located within an “area of search” as shown and defined on the Minerals Local Plan Policies Map. However, Flexible Working Areas A and B, lie outside the “area of search”.

924. In considering the proposal against Policy MLP 3 of the adopted Worcestershire Minerals Local Plan, it is concluded that proposal would meet the relevant criteria of this policy, namely there is a shortfall in extant sites and allocated specific sites and / or preferred areas to meet the scale of provision required over the life of the plan; and in relation to the flexible working areas, the deposits were not known, or were not considered to be resources of local or national importance, and therefore did not inform the identification of mineral allocations, and sufficient geological and market data has been provided by the applicant to demonstrate the presence of a nationally or locally important mineral resource.

925. In view of the above, the Head of Planning and Transport Planning considered that the location of the proposed development accords with the strategic locational policies of the adopted Worcestershire Minerals Local Plan, in accordance with Policies MLP 1 and MLP 3 of the adopted Worcestershire Minerals Local Plan.

BMV agricultural land

926. With regard to the soil resource and BMV agricultural land, approximately 32.9 hectares of the existing agricultural land (in Gloucestershire and Worcestershire

combined) is Grades 2 (located in Gloucestershire) and 3a, which are BMV agricultural land. The proposed restoration seeks to establish new areas of nature conservation and wetland and approximately 30 hectares of agricultural land, restored to Grade 3a, equating to an overall net loss of BMV by approximately 2.9 hectares (Worcestershire and Gloucestershire combined). The applicant has confirmed that there would be a loss of approximately 3.36 hectares of BMV agricultural land in Gloucestershire due to the retention of the clean water pond and silt ponds and surrounding habitats. However, in Worcestershire there would be a gain of approximately 0.46 hectares as the applicant proposes to create additional BMV agricultural land on the swathe of former Grade 3b agricultural land in part of Phases 1 to 9. Natural England raises no objections to the proposal, stating that they are satisfied with the Detailed Restoration and LEMP and Soils Handling Strategy, except they consider that the applicant should design under land drainage into the scheme at the start rather than rely on retro designing if needed.

927. In view of the above, the Head of Planning and Transport Planning considers that, subject to the imposition of appropriate conditions relating to the management of the soil resource, including the development being carried out in accordance with the submitted Soil Handling Strategy, detailed drainage scheme, an updated Outline Aftercare Scheme and Detailed Aftercare Scheme, then the objectives of the NPPF in respect of soils and their use in the restoration of BMV agricultural land would be met, and the scheme would be in accordance with Policies MLP 34 and MLP 35 of the adopted Worcestershire Minerals Local Plan.

Alternatives

928. With regard to the consideration of alternatives, the PPG states that the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 do not require an applicant to consider alternatives. However, where alternatives have been considered, Paragraph 2 of Schedule 4 requires the applicant to include in their ES a description of the reasonable alternatives studied and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects. The applicant considered a number of alternatives including: no development option; alternative extraction sites option; alternative methods of extraction and processing; alternative methods of transportation; and alternative restoration. In view of the above, the Head of Planning and Transport Planning considers that the applicant's approach to the consideration of alternatives is acceptable in this instance.

929. Letters of representations object to the proposal suggesting the development should be carried out on alternative land elsewhere not near any villages. The Head of Planning and Transport Planning considers this is not one of the exceptional cases where an alternative scheme is relevant. Vague alternative schemes should be given very little if any weight and does not constitute a valid reason for refusing this application in this instance. Members are advised that this application should be determined on its own merits, in accordance with the Development Plan, unless material considerations indicate otherwise.

Traffic, highway safety and impact upon public rights of way

930. The proposal would generate approximately 144 HGV movements per day (72 HGVs entering the site and 72 HGVs exiting the site per day), equalling 13 two-way HGV movements per hour, or 1 HGV movement in either direction every 4 to 5 minutes during a weekday. This equates to an increase of approximately 3.3% of total traffic movements along the A38. The impact on Worcestershire's highway network is

limited to trips travelling on the A38 north of the M50 Motorway. This is estimated to represent only approximately 5% of the HGV activity, which equates to approximately 7 two-way trips per day.

931. Vehicular access into the site would be achieved via a bell mouth priority junction onto the A38 in Gloucestershire, leading to an internal haul road. The suitability of the access and the impacts upon the highway network in Gloucestershire are matters for Gloucestershire County Council to consider. In view of this, a condition is recommended restricting commencement of the development unless planning permission has been obtained for access to and from the site via the proposed haul road and access onto the A38 in Gloucestershire. Based on the advice of National Highways, the County Highways Officer, County Footpath Officer, the Ramblers Association and Malvern Hills District Footpath Society, the British Horse Society (East and West Midlands), and the British Horse Society (South-West), the Head of Planning and Transport Planning is satisfied that the proposal would not have an unacceptable impact upon traffic, highway safety or public rights of way in Worcestershire, in accordance with Policies MLP 30 and MLP 39 of the adopted Worcestershire Minerals Local Plan, Policy WCS 8 of the adopted Worcestershire Waste Core Strategy, and Policy SWDP 4 of the adopted South Worcestershire Development Plan, subject to the imposition of appropriate conditions.

Residential amenity (including noise, dust, air quality, vibration, lighting and health impacts)

932. Based on the advice of Worcestershire Regulatory Services, Environment Agency, UK Health Security Agency and the County Public Health Practitioner. The Head of Planning and Transport Planning considers that, subject to the imposition of appropriate conditions that there would be no unacceptable adverse noise, dust, air pollution, vibration or lighting impacts on residential amenity or that of human health, in accordance with Policies MLP 28 and MLP 29 of the adopted Worcestershire Minerals Local Plan, Policy WCS 14 of the adopted Worcestershire Waste Core Strategy, and Policy SWDP 31 of the adopted South Worcestershire Development Plan.

Landscape character and appearance of the local area

933. The Head of Planning and Transport Planning considers that should planning permission be granted, conditions should be imposed requiring the permission to be restored within a set timescale, being carried out in accordance with the Soil Handling Strategy, design of screening bunds, phased working scheme, design of conveyors, boundary treatments, annual topographical surveys, detailed drainage scheme and management plan, restricting lighting, Noise, Vibration and Dust Management Plans and monitoring schemes, Biodiversity Mitigation Scheme, updated LEMP, being carried out in accordance with the Arboricultural Report, limiting the height of stockpiles, updated restoration scheme, aftercare scheme, 10-year aftercare period, interpretation strategy, and removing permitted development rights.

934. In view of the above and based on the advice of the County Landscape Officer, Malvern Hills District Council and the Cotswolds Conservation Board, the Head of Planning and Transport Planning considers that the proposed development would not have an unacceptable impact upon the character and appearance of the local area, including the Cotswolds AONB National Landscape and views from public rights of way, subject to the imposition of appropriate conditions. The Head of Planning and Transport Planning considers that the proposal is in accordance with Policy MLP 33

of the adopted Worcestershire Minerals Local Plan, Policies WCS 9, WCS 12 and WCS 14 of the adopted Worcestershire Waste Core Strategy, and Policies SWDP 23 and SWDP 25 of the adopted South Worcestershire Development Plan.

Historic environment

935. There are a number of heritage assets with the context of the application site. The Head of Planning and Transport Planning considers that the proposals would lead to 'less than substantial' harm to the significance of the designated heritage assets of Towbury Hill Camp Schedule Monument, the Grade II Listed Buildings of Puck Cottage, Twyning Farm including Walled Garden and Dairy, Shuthonger Villa, Shuthonger House, boundary wall, gates and gate piers to Shuthonger House and Crown Cottage and Ripple and Uckinghall Conservation Areas. Notwithstanding this harm is less than substantial, the harm must still be given considerable importance and weight, and considerable weight must be given to the desirability of preserving the setting of the designated heritage assets. Consequently, the fact of harm to designated heritage assets is still to be given more weight than if simply a factor to be taken into account along with all other material considerations.

936. The Head of Planning and Transport Planning considers that subject to the imposition of appropriate conditions, that on balance, in view of the public benefits of the proposal, namely the creation of a small number of direct employment opportunities (approximately 20 employees), as well as contributing to the wider growth aspirations for the County through the supply of local aggregates to the construction market, that this outweighs the temporary and less than substantial harm to these designated heritage assets.

937. Based on the advice of the County and District Archaeologists, the Head of Planning and Transport Planning considers that on balance, subject to the imposition of an appropriate condition, that the impact upon the non-designated archaeological assets is not of such significance as to constitute a refusal reason in this instance. The Head of Planning and Transport Planning considers that the proposal is in accordance with Policy MLP 32 of the adopted Worcestershire Minerals Local Plan, Policies WCS 9, and WCS 12 of the adopted Worcestershire Waste Core Strategy, and Policies SWDP 6 and SWDP 24 of the adopted South Worcestershire Development Plan.

Ecology, biodiversity and geodiversity

938. The application site is located approximately 40 kilometres north-east of the Severn Estuary SPA and SAC which are European sites. The Severn Estuary is also notified as a Ramsar Site (of international importance) and at a national level as the Upper Severn SSSI. Despite the distance from these European sites, the application site is hydrologically linked to them and hence has the potential for impacts through functional hydrological connectivity and the potential presence of migratory species within the upper River Severn catchment.

939. Consultants on behalf of the MPA as the competent authority have carried out a HRA Screening Assessment to identify whether the proposal would result in likely significant effects upon European sites. The HRA Screening Assessment concludes that the proposal could result in likely significant effects to the Severn Estuary SAC / SPA / Ramsar site. Therefore, these effects require further consideration at the HRA AA stage to determine whether, in light of any mitigation and avoidance measures,

they would result in adverse effects on the integrity of the above European sites, either alone, or in combination with other plans and projects.

940. The HRA AA concludes that with appropriate mitigation and protective measures, there would be no effect on the integrity of the Severn Estuary SAC / SPA / Ramsar site in view of its conservation objectives, and as such an adverse effect in combination is also ruled out and no further assessment is required.

941. Based on the advice of Natural England, Worcestershire Wildlife Trust, the County Ecologist and the Earth Heritage Trust, it is considered that subject to the imposition of appropriate conditions, that the proposed development would have no unacceptable adverse effects on the ecology, biodiversity and geodiversity at the site or in the surrounding area, including European sites, and would protect, conserve and enhance the application site's value for biodiversity, in accordance with Policies MLP 31 and MLP 36 of the adopted Worcestershire Minerals Local Plan, Policies WCS 9 and WCS 10 of the adopted Worcestershire Waste Core Strategy, and Policy SWDP 22 of the adopted South Worcestershire Development Plan.

Water environment and flood risk

942. A Flood Risk Assessment accompanied the application, as the proposed development spans all three Flood Zones as shown on the Environment Agency's Indicative Flood Risk Map. The submitted Flood Risk Assessment demonstrate that no net loss of floodplain storage would occur throughout the life of the proposed development. As all of the site area would be restored to or below pre-excitation ground levels, it would provide a net gain in floodplain storage and conveyance.

943. With regard to groundwater, the applicant has confirmed they would install a below ground clay cut-off around the perimeter of the site and key this into the underlying weathered bedrock clay / mudstone to create an impermeable hydraulic seal between the Phase 1 to 9 excavation area and the surrounding sand and gravel aquifer. The placement of an impermeable seal would prevent the groundwater flow from passing westwards through Phases 1 to 9. This has the potential, if there is no mitigation, to prevent groundwater base flow from entering the surface waterbodies (such as Ripple Lake and Napps LWS and the Ripple Quarry Lake) west of the proposed excavation area.

944. In order to mitigate this potential impact, a groundwater interceptor ditch is proposed around the north, south and eastern periphery of the extraction area (Phases 1 to 9), excavated to the base of the gravel. Groundwater level monitoring is proposed throughout the operational period of the quarry to confirm the integrity of the hydraulic seal around Phase 1 to 9 and to demonstrate the adequacy of the groundwater interception ditch and re-infiltration system.

945. Based on the advice of the Environment Agency, Canal and River Trust, Lead Local Flood Authority, Gloucestershire County Council's Lead Local Flood Authority, South Worcestershire Land Drainage Partnership and Severn Trent Water Limited, the Head of Planning and Transport Planning considers that the proposal would have no unacceptable adverse effects on the water environment, including flooding, subject to the imposition of appropriate conditions. The Head of Planning and Transport Planning considers that the proposal is in accordance with Policies MLP 37 and MLP 38 of the adopted Worcestershire Minerals Local Plan, Policy WCS 10 of the adopted

Worcestershire Waste Core Strategy, and Policies SWDP 28, SWDP 29 and SWDP 30 of the adopted South Worcestershire Development Plan.

Restoration and aftercare of the site

946. The proposal seeks to progressively restore Phases 1 to 9 to BMV agricultural land (arable), but with Flexible Working Areas A and B being restored to wetland areas for nature conservation purposes, with wetland features including a mosaic of wetland grassland, scrapes and shallows and open water. The proposed restoration of Flexible working Areas A and B would also provide flood storage benefits. The application states that compared to the current baseline, the proposed restoration would result in the replacement of over 29.7 hectares of agricultural land with biodiversity and nature conservation gain, seeking to establish approximately 16.1 hectares of wet grassland and scrub, approximately 2.5 hectares of wetland marginal habitat, approximately 1.2 hectares of field margins containing floristically rich, tussocky grassland, and approximately 1.6 hectares of deciduous woodland creation. In addition, the proposal would create approximately 2.3 hectares of drainage basin, approximately 2.9 hectares of interceptor ditch, approximately 2.1 hectares of waterbodies and approximately 2 hectares of scrapes. The scheme seeks to preserve and reinstate the characteristic hedgerow patterns where possible. However, overall, there would be a loss of hedgerow length of approximately 587 metres. Fundamental to this overall loss is the removal of approximately 500 metres of internal hedgerow within the flexible working area phases. A restoration aim within this area is to attract ground nesting birds through the delivery of wetland scrapes and grassland. It is considered that the reinstatement of this internal hedgerow would provide a vantage point for predators overlooking the habitat, deterring a primary habitat function. Beyond this, removed hedgerow would be largely reinstated to existing lengths albeit impacted by the inceptor drain and drainage basin along eastern and western boundaries of the arable area (Phases 1 to 9).

947. The Head of Planning and Transport Planning considers that the proposal strikes an acceptable compromise between the reinstatement of BMV agricultural land and the creation of wetland / nature conservation areas and, therefore, in principle the restoration of Phases 1 to 9 by the importation of inert materials is acceptable in this instance, and the risk of a lack of availability of suitable infill materials can be satisfactorily addressed by the imposition of appropriate conditions relating to phasing, progressive working and restoration schemes, annual surveys of the ground levels, requiring the site to be restored within 9 years of commencement of the development, long-term aftercare period and detailed restoration and aftercare schemes. This would ensure that there was limited disturbed land at any one time, and that the site is restored at the earliest opportunity and to high environmental standards. In view of the above, it is considered that the proposal accords with Policies MLP 9 and MLP 26 of the adopted Worcestershire Minerals Local Plan, and Policy WCS 5 of the adopted Worcestershire Waste Core Strategy.

Economic impact

948. The Head of Planning and Transport Planning acknowledges that the NPPF affords significant weight to the need to support economic growth and that great weight should be given to the benefits of the mineral extraction, including to the economy. It is considered that the proposal would provide a small number of direct employment opportunities (20 full-time equivalent jobs), as well as contributing to the wider growth aspirations for the county through the supply of local aggregates to the construction market. Therefore, it is considered that the proposal would provide

substantial sustainable economic growth benefits to the local economy in accordance with the NPPF and this weighs in its favour.

Climate change and sustainability

949. Given that the proposal is well located close to the potential markets it would serve; located close to the primary road network; the applicant is proposing use of conveyors where possible to reduce dump truck movements across the site and thereby reduce vehicle emissions; on site recycling of water; the restoration scheme would make provision for SuDS; flood risk betterment; extensive habitat creation; and reinstatement of BMV agricultural land. In view of this, the Head of Planning and Transport Planning considers that overall, the proposal would contribute to achieving sustainable development and mitigating and adapting to climate change, in accordance with Policy MLP 26 of the adopted Worcestershire Minerals Local Plan, Policy WCS 11 of the adopted Worcestershire Waste Core Strategy, and Policy SWDP 28 of the adopted South Worcestershire Development Plan.

Cumulative effects

950. Cumulative effects result from combined impacts of multiple developments that individually may be insignificant, but when considered together, could amount to a significant cumulative impact; as well as the inter-relationships between impacts – combined effects of different types of impacts, for example noise, air quality and visual impacts on a particular receptor.

951. With regards to inter-relationships between impacts, it is considered that based upon the studies and content of the individual chapters within the submitted ES, the underlying conclusion is that there is no single topic or combination of issues which should objectively prevent the development from proceeding.

952. With regard combined impacts of multiple developments, the ES states that the applicant is not aware of any of the above plans or projects that require due consideration as part of this development proposal and is not aware of any anticipated development proposal likely to result in any adverse cumulative impacts upon the surrounding environment.

953. Since the submission of the proposed Bow Farm Quarry application and the above conclusions, a separate planning application has been submitted to the County Council by CEMEX for Ripple East Quarry (MPA Ref: 22/000015/CM), located approximately 50 metres north of Bow Farm Quarry application site.

954. To ensure a robust consideration of cumulative effects the applicant submitted additional information in the form of an addendum to the ES. The addendum provides an assessment of the potential for cumulative impacts resulting from the simultaneous operation of the proposed quarry at Bow Farm and the neighbouring proposed Ripple East Quarry. The addendum demonstrates that no significant adverse effects would arise from the simultaneous working of the proposed Bow Farm and Ripple East Quarries, and no conclusions previously reached within the Bow Farm Quarry ES require alteration, and there is also no need for any additional or revised mitigation embedded within the working and restoration scheme.

955. In view of the above, the Head of Planning and Transport Planning does not consider that the cumulative impact of the proposed development would be such that it would warrant a reason for refusal of the application.

Prematurity

956. Objections have been received on the grounds of prematurity, in particular in relation to the proposal coming forward before the adoption of the Worcestershire Minerals Local Plan and emerging Mineral Site Allocations DPD. The NPPF states that *“arguments that an application is premature are unlikely to justify a refusal of planning permission other than in the limited circumstances where both:*

- a) the development proposed is so substantial, or its cumulative effect would be so significant, that to grant permission would undermine the plan-making process by predetermining decisions about the scale, location or phasing of new development that are central to an emerging plan; and*
- b) the emerging plan is at an advanced stage but is not yet formally part of the Development Plan for the area”* (paragraph 49).

957. The Head of Planning and Transport Planning notes that the Worcestershire Minerals Local Plan was adopted by the County Council on 14 July 2022 and now forms part of the Development Plan, replacing the minerals policies in the County of Hereford and Worcester Minerals Local Plan. The Head of Planning and Transport Planning considers that on the whole, the proposal is broadly in accordance with the adopted Worcestershire Minerals Local Plan.

958. It is considered that as the emerging Mineral Site Allocations DPD is at an early stage of preparation, and has not been subject to consultation, tested at examination or adopted by the County Council, that it should be given very limited weight in the determination of this application.

959. In view of the above, the Head of Planning and Transport Planning considers that refusal of planning permission on the grounds of prematurity could not be justified in this instance.

Conclusion

960. In accordance with paragraph 11 c) of the NPPF, development proposal that accord with an up-to-date Development Plan should be approved without delay. On balance, taking into account the provisions of the Development Plan and in particular Policies MLP 1, MLP 3, MLP 7, MLP 9, MLP 14, MLP 15, MLP 26, MLP 28, MLP 29, MLP 30, MLP 31, MLP 32, MLP 33, MLP 34, MLP 35, MLP 36, MLP 37, MLP 38, MLP 39, and MLP 40 of the adopted Worcestershire Minerals Local Plan, Policies WCS 1, WCS 2, WCS 5, WCS 6, WCS 8, WCS 9, WCS 10, WCS 11, WCS 12, WCS 14 and WCS 15 of the adopted Worcestershire Waste Core Strategy and Policies SWDP 1, SWDP 2, SWDP 4, SWDP 5, SWDP 6, SWDP 21, SWDP 22, SWDP 23, SWDP 24, SWDP 25, SWDP 28, SWDP 29, SWDP 30, SWDP 31, SWDP 32 and SWDP 33 of the adopted South Worcestershire Development Plan, it is considered the proposal would not cause demonstrable harm to the interests intended to be protected by these policies or highway safety.

Recommendation

961. The Head of Planning and Transport Planning recommends that, having taken the environmental information into account, planning permission be

granted for proposed extraction sand and gravel quarry using site derived and imported inert material to wetland, nature conservation and agriculture (cross-boundary application) on land at Bow Farm, Bow Lane, Ripple, Worcestershire, subject to the following conditions:

Commencement

- 1) The development hereby approved must be begun not later than the expiration of 3 years beginning with the date of this permission.
- 2) The operator shall provide written notification to the Mineral Planning Authority at least 14 days prior to:
 - i. The commencement of the development hereby approved;
 - ii. The commencement of soil stripping operations in any phase;
 - iii. The commencement of mineral extraction in any phase;
 - iv. The commencement of infilling operations in any phase; and
 - v. The completion of soil replacement operations in any phase.

Time Limits

- 3) All mineral extraction operations shall cease, and the site shall be restored in accordance with the approved restoration scheme as required by Condition 54) of this permission, within 9 years of commencement of the development hereby approved. Should mineral extraction operations cease before this date, the Mineral Planning Authority shall be notified in writing within 1 month of mineral extraction operations ceasing.

Approved Plans

- 4) The development hereby approved shall be carried out in accordance with the details shown on the following approved drawings, except where otherwise stipulated by conditions attached to this permission:
 - 2636-4-4-3-Fig.2-S4-P6, titled: 'Existing Conditions';
 - 2636-4-4-2-1-DR-0002-S4-P9, titled: 'Initial Works and Phase 1 Extraction';
 - 2636-4-4-2-1-DR-0003-S4-P8, titled: 'Phases 3 and 4 Extraction';
 - 2636-4-4-2-1-DR-0004-S4-P8, titled: 'Phases 5 and 6 Extraction';
 - 2636-4-4-2-1-DR-0005-S4-P8, titled: 'Phases 7,8 and B Extraction';
 - 2636-4-4-2-1-DR-0006-S4-P9, titled: 'Phase 9 Extraction';
 - 2636-4-4-2-1-DR-0007-S4-P9, titled: 'Proposed Restoration';
 - 2636-4-4-2-1-DR-0008-S4-P2, titled: 'Overburden Depth Isopachyte';
 - 2636-4-4-2-1-DR-0009-S4-P2, titled: 'Mineral Depth Isopachyte';
 - 2636-4-4-2-1-DR-0010-S4-P1, titled: 'Bridge Detail';
 - 2636-4-4-2-DR-0011-S4-P1, titled: 'Site Location';
 - 2636-4-4-2-1-DR-0012-S4-P2, titled: 'Borehole Location Plan';
 - 2636-4-4-2-1-DR-0013-S4-P4, titled: 'Proposed Plant Site Cross Sections';
 - 2636-4-4-2-2-DR-0014-P3, titled: 'Cross Section – Interceptor Ditch';
 - 2636-4-4-2-1-DR-0015-P5, titled: 'Plant Site Details';
 - 2636-4-4-2-1-DR-0016-P3, titled: 'Plant Site Elevations';
 - 2636-4-4-2-1-DR-0017-P2, titled: 'Proposed Pipeline Crossing';
 - 2636-4-4-2-1-DR-0018-P2, titled: 'Proposed Bridleway Crossing Detail';

- 2636-4-4-2-1-DR-0019-P2, titled: 'Bridleway, Common Land and Haul Route';
- 2636-4-4-2-1-DR-0020-P1, titled: 'Common Land Designation';
- 2636-4-4-2-1-DR-0021-S4-P3, titled: 'Tree Protection Plan';
- 2636-4-4-2-1-DR-0022-P1, titled: 'GCC Cross Sections';
- 2636-4-4-2-1-DR-0023-P1, titled: 'Towbury Hillfort SAM Sections'; and
- 2636-4-4-2-1-DR-0024-P1, titled: 'Flexible Working Area A Restoration Cross Section'.

Extraction Boundary

- 5) Notwithstanding the submitted details, no soil stripping operations shall take place until a drawing showing the limit of mineral extraction has been submitted to and approved in writing by the Mineral Planning Authority. The limit of mineral extraction shall exclude land underneath the eastern soil screening bund. Thereafter, the development shall be carried out in accordance with the approved details.

Waste Acceptance

- 6) No waste materials other than those defined in the application or stipulated by conditions(s) attached to this permission shall be imported to the site.
- 7) Inert waste material that is imported for the purpose of infilling and restoration purposes shall consist of uncontaminated or treated sub-soils and construction, demolition and excavation waste such as but not limited to: concrete, bricks, tiles, and ceramics that will not undergo any physical, chemical or biological transformations of significance and will not give rise to environmental pollution or risk harm to human health as a result of coming into contact with other matter.

Phasing and Restoration

- 8) The site shall be progressively worked and restored in accordance with the phased working programme and contiguous restoration scheme as shown on the approved drawings numbered: 2636-4-4-2-1-DR-0002-S4-P9, titled: 'Initial Works and Phase 1 Extraction'; 2636-4-4-2-1-DR-0003-S4-P8, titled: 'Phases 3 and 4 Extraction'; 2636-4-4-2-1-DR-0004-S4-P8, titled: 'Phases 5 and 6 Extraction'; 2636-4-4-2-1-DR-0005-S4-P8, titled: 'Phases 7,8 and B Extraction'; and 2636-4-4-2-1-DR-0006-S4-P9, titled: 'Phase 9 Extraction', except where otherwise stipulated by conditions attached to this permission.

Working Hours

- 9) Except in emergencies, all operations and uses on the site including the running of any plant or machinery, shall only take place between 07:00 to 18:00 hours Mondays to Fridays, inclusive, and 07:00 to 13:00 hours on Saturdays, with no operations on the site at any time on Sundays, Bank or Public Holidays. The Mineral Planning Authority shall be informed in writing within 48 hours of an emergency occurrence that would cause working outside the stipulated hours.

Design

- 10) Notwithstanding the submitted details, prior to the construction of the overland and radial conveyors, as shown on approved drawing numbered: 2636-4-4-2-1-DR-0002-S4-P9, titled: 'Initial Works and Phase 1 Extraction',

detailed design drawings of the conveyors including dimensions, materials, colour and finishes, shall be submitted to the Mineral Planning Authority for approval in writing. Thereafter, the development shall be carried out in accordance with the approved details.

Highways

- 11) No development shall commence until planning permission has been obtained for access to and from the site via the haul road and access onto A38 as shown on approved drawing numbered: 2636-4-4-2-1-DR-0002-S4-P9, titled: 'Initial Works and Phase 1 Extraction'.
- 12) Access to and from the site shall only be gained via the haul road and access onto A38 as shown on approved drawing numbered: 2636-4-4-2-1-DR-0002-S4-P9, titled: 'Initial Works and Phase 1 Extraction'.
- 13) Prior to the commencement of mineral extraction, a Geotechnical Assessment shall be submitted to and approved in writing by the Mineral Planning Authority, in consultation with National Highways. The Geotechnical Assessment must demonstrate that:
 - i. The side slope of the excavation does not undermine the M50 Motorway in the short or long-term;
 - ii. The inspection regime for the edge of the excavation adjacent to the M50 Motorway and procedures for addressing any stability issues are identified and agreed with National Highways; and
 - iii. The dewatering and lowering of the groundwater table during excavation does not undermine the M50 Motorway or the adjacent Bow Lane bridge structure.

Thereafter, the development shall be carried out in accordance with the approved scheme.

Boundary Treatment

- 14) Details of any new fences, walls and other means of enclosure shall be submitted to the Mineral Planning Authority for approval in writing prior to being erected. Thereafter the development shall be carried out in accordance with the approved details.

CCTV

- 15) Details and locations of any Closed-Circuit Television (CCTV) to be installed at the site shall be submitted to the Mineral Planning Authority for approval in writing prior to being erected. Thereafter, the development shall be carried out in accordance with the approved details.

Topographical Survey

- 16) During the 12th month following the commencement date for mineral extraction as notified under Condition 2 Part iii of this permission, a topographical survey of the application site as shown edged red on approved drawing numbered: 2636-4-4-2-DR-0011-S4-P1, titled: 'Site Location', shall be carried out and the resulting data submitted to the Mineral Planning Authority within 2 months from the date the survey was carried out. Every 12th month thereafter, a topographical survey of the site

as shown edged red on approved drawing numbered: 2636-4-4-2-DR-0011-S4-P1, titled: 'Site Location' shall be carried out and the resulting data shall be submitted to the Mineral Planning Authority within two months of the survey date. Supplementary topographical surveys shall be undertaken upon the written request of the Mineral Planning Authority and submitted to the Mineral Planning Authority within 2 months of such a request. Each topographical survey shall be submitted to the Mineral Planning Authority at a scale of 1:1250, with all levels related to Ordnance Datum. Each topographical survey shall include the extent of land open for quarrying or undergoing restoration and include quarry floor levels. The requirement to undertake an annual topographical survey of the site shall cease upon the expiration of this permission, as set out in Condition 3 of this permission.

Water Environment

- 17) Prior to the commencement of the development hereby approved, a scheme to monitor ground and surface water features (including but not limited to springs, boreholes, and wells) shall be submitted to and approved in writing by the Mineral Planning Authority in consultation with the Environment Agency, having regard to the approved 'Water Environment and Flood Risk' section of the Environmental Statement, Revision P2, dated 31 October 2019, and section 12: 'Water Environment' of the Environmental Statement Regulation 25 Addendum, Revision P2, dated 7 August 2020, and 'Bow Farm Sand and Gravel Quarry Development Hydrogeological and Hydrological Impact Assessment and Flood Risk Assessment undertaken by GWP Consultants, Report Ref: 190714, Version v.02, dated 27 August 2019. The scheme shall include: frequency and location of monitoring boreholes; method and nature of sampling. Thereafter monitoring shall be carried out and reviewed in accordance with the approved scheme.

- 18) If the monitoring scheme approved under Condition 17) of this permission, shows any adverse risk of deterioration to the water features then extraction shall cease until proposals: to investigate the cause of deterioration; to remediate any such risks; and to monitor and amend any failures of the remediation undertaken, have been submitted to the approved in writing by the Mineral Planning Authority, in consultation with the Environment Agency. Thereafter, the development shall be carried out in accordance with the approved details.

- 19) Prior to the commencement of development hereby approved, a scheme for flood storage compensation including flood risk betterment (post scheme) and improvements to flood flow, in accordance with the approved 'Bow Farm Sand and Gravel Quarry Development Hydrogeological and Hydrological Impact Assessment and Flood Risk Assessment undertaken by GWP Consultants, Report Ref: 190714, Version v.02, dated 27 August 2019, including Appendix 13: 'Floodplain Storage Compensation Assessment' and accompanying drawing numbered: Appendix 13.1, Version B, Drawing Ref: BOWFHIA1907, shall be submitted to and approved in writing by the Mineral Planning Authority in consultation with the Environment Agency. Thereafter, the development shall be carried out in accordance with the approved scheme.

- 20) Notwithstanding the submitted details, no development shall commence until detailed design drawings for surface water drainage have been submitted to and approved in writing by the Mineral Planning Authority. Thereafter the development shall be carried out in accordance with the approved details.
- 21) No works in connection with site drainage shall commence until a Sustainable Drainage Systems (SuDS) Management Plan which shall include details on future management responsibilities, together with maintenance schedules for all SuDS features and associated pipework has been submitted to and approved in writing by the Mineral Planning Authority. The Management Plan shall also detail the strategy that will be followed to facilitate the optimal functionality and performance of the SuDS scheme throughout its lifetime. The approved SuDS Management Plan shall be implemented in full in accordance with the agreed terms and conditions and shall be managed and maintained in accordance with the approved Management Plan and thereafter.
- 22) Flexible Working Areas A and B as shown on approved drawing numbered: 2636-4-4-3-Fig.2-S4-P6, titled: 'Existing Conditions' shall not be dewatered.
- 23) There shall be no discharge of foul or contaminated drainage from the site into either groundwater or any surface water whether direct or via soakaways.
- 24) Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound shall be at least equivalent to the capacity of the tank, vessel or the combined capacity of interconnected tanks or vessels plus 10%. All filling points, associated pipework, vents, gauges and sight glasses shall be located within the bund or have separate secondary containment. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework shall be located above ground and protected from accidental damage. All filling points and tank or vessel overflow pipe outlets shall be detailed to discharge downwards into the bund.
- 25) Prior to the commencement of the development hereby approved, details of pollution control measures, including pollution incident response procedures shall be submitted to, and approved in writing by the Mineral Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.
- 26) Repair, maintenance and fuelling of vehicles, plant and machinery shall only take place on an impervious surface drained to a sealed interceptor and the contents of the interceptor shall be removed from the site.
- 27) Notwithstanding the submitted details, prior to the construction of the bridges, as shown on approved drawing numbered: 2636-4-4-2-1-DR-0002-S4-P9, titled: 'Initial Works and Phase 1 Extraction', the detailed design of the bridges, including surfacing details, materials, colour and finishes shall be submitted to the Mineral Planning Authority for approval in writing.

Thereafter, the development shall be carried out in accordance with the approved details.

Lighting

- 28) No external lighting shall be installed on the part of the application site falling within the administrative boundaries of Worcestershire, as detailed at paragraph 7.5 of the approved 'Ecological Impact Assessment', Revision P2, dated 6 November 2019.

Noise and Vibration

- 29) Notwithstanding the submitted details, no soil stripping operations shall take place until a Noise and Vibration Management Plan has been submitted to and approved in writing by the Mineral Planning Authority, which shall include a scheme for noise and vibration monitoring. Thereafter, the development shall be carried out in accordance with the approved scheme.
- 30) The noise attributable to mineral operations from the site shall not exceed the levels set out below at the receptor locations identified in approved Appendix 5: 'Noise and Vibration Response and Noise Management Plan – NVC Ltd', dated July 2020 of the 'Environmental Statement – Regulation 25 Addendum', Revision P2, dated August 2020, as updated by Appendix 5: 'Noise Response', dated May 2021 of the 'Environmental Statement – Regulation 25 Addendum', Revision P2, dated August 2021, when measured in terms of an LAeq 1-hour level (free field), as measured at a point closest to the noise source with the microphone at a height of 1.2 metres above ground level:
- Silvermead (North): LAeq, 1-hour 55dB;
 - Bow Farm: LAeq, 1-hour 54dB;
 - Puck Cottage, Bow Cottage, Bowfields, Threshing Bow, The Bow (East): LAeq, 1-hour 54dB;
 - Bowbridge Cottage, Scarecrow Stables, Dadsley Cottage (East): LAeq, 1-hour 54dB
 - Puckrup Lane (Puckrup Hall): LAeq, 1-hour 53dB;
 - Fairfield Bungalow: LAeq, 1-hour 55dB;
 - Twyning Farms and Owls End (South-East): LAeq, 1-hour 54dB;
 - Redpools Farm (South): LAeq, 1-hour 55dB;
 - Windmill Tump and Bushley Green (South-West): LAeq, 1-hour 53dB;
 - The Stall, Bredon School, and Church End Farm (West): LAeq, 1-hour 54dB; and
 - Far End / Church End Nursery: LAeq, 1-hour 55dB.

- 31) During the removal of soils and superficial deposits and the creation of any screen bunds or restoration works, the noise limit at the receptor locations identified in approved Appendix 5: 'Noise and Vibration Response and Noise Management Plan – NVC Ltd', dated July 2020 of the 'Environmental Statement – Regulation 25 Addendum', Revision P2, dated August 2020, as updated by Appendix 5: 'Noise Response', dated May 2021 of the 'Environmental Statement – Regulation 25 Addendum', Revision P2, dated August 2021, shall not exceed 70dB LAeq 1-hour (free field), as measured at a point closest to the noise source with the microphone at a height of 1.2 metres above ground level. Such temporary operations shall not exceed a total of 8 weeks duration at any of the identified receptor locations in any

continuous 12-month period. Prior written notice of at least 5 working days, being Mondays to Fridays inclusive, shall be given to the Mineral Planning Authority of the commencement and the duration of such operations.

- 32) Within 21 days from receipt of a written request from the Mineral Planning Authority, the operator shall, at its expense, employ an independent qualified acoustic consultant to assess the noise impact from the development hereby approved upon the nearest sensitive properties. The scope, methodology and timescales for delivery of the noise assessment shall be agreed in writing with the Mineral Planning Authority before assessment begins. Thereafter, the noise assessment shall be completed in accordance with the agreed scope and shall be presented to the Mineral Planning Authority within the timescales for delivery.
- 33) Upon receipt of the independent consultant's noise assessment by the Mineral Planning Authority required under Condition 32) of this permission, including all noise measures and any audio recordings, where the Mineral Planning Authority is satisfied of an established breach of noise limits set out in the Conditions 30) and / or 31) of this permission, and upon notification by the Mineral Planning Authority in writing to the quarry operator, the quarry operator shall within 21 days propose a scheme of mitigation for the written approval of the Mineral Planning Authority. The scheme of mitigation shall be designed to mitigate the breach and to prevent its future recurrence. This scheme shall specify the timescales for implementation. Thereafter, the scheme shall be implemented in accordance with the approved details.
- 34) Notwithstanding the submitted details, no soil stripping operations shall take place, until the detailed design of the soil screening bunds as shown on approved drawing number: 2636-4-4-2-1-DR-0002-S4-P8, titled: 'Initial Works and Phase 1 Extraction' has been submitted to and approved in writing by the Mineral Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details and soil screening bunds shall be constructed prior to mineral extraction taking place within the application site within the administrative boundaries of Worcestershire.
- 35) All vehicles, plant and machinery operated within the site shall be maintained in accordance with the manufacturers' specifications at all times, and this shall include the fitting and use of silencers. Except for maintenance purposes, no machinery shall be operated with its covers either open or removed.
- 36) All mobile plant and machinery used on the site shall incorporate white noise reversing warning devices.
- 37) Internal roads shall be maintained such that their surface remains in a good condition free of potholes or other defects.
- 38) No soil stripping operations shall take place until a scheme to monitor vibrations has been submitted to and approved in writing by the Mineral Planning Authority. The scheme shall include: method, nature, frequency, duration and locations of monitoring, trigger levels and contingency and

mitigation proposals should a trigger level be breached. Thereafter monitoring shall be carried out in accordance with the approved scheme.

Dust

- 39) The development hereby approved shall be carried out in accordance with the approved 'Dust Management Plan – Proposed Quarry at Bow Farm', Revision D, dated 8 December 2021.
- 40) Notwithstanding the provisions of Condition 39) of this permission, the following measures shall be undertaken to suppress dust emissions on the site arising from all operations, including vehicular movements, mineral extraction, infilling operations and restoration:
- i. The provision of a water bowser and spraying units which shall be used at all times when there is a risk of dust arising from operations at the site;
 - ii. All plant vehicles shall have upward facing exhausts to ensure that emissions are directed away from the ground; and
 - iii. There shall be a maximum speed limit of 10mph within the site.
- 41) No soil stripping operations shall take place, until a scheme for continuous dust monitoring has been submitted to and approved in writing by the Mineral Planning Authority. The scheme shall include: method, nature, frequency, duration and locations of monitoring, trigger levels and contingency and mitigation proposals should a trigger level be breached. Thereafter monitoring shall be carried out in accordance with the approved scheme.

Archaeology

- 42) No development shall take place until a programme of archaeological work, including a Written Scheme of Investigation, has been submitted to and approved in writing by the Mineral Planning Authority. The scheme shall include an assessment of significance and research questions and:
- i. The programme and methodology of site investigation and recording;
 - ii. The programme for post investigation assessment;
 - iii. Provision to be made for analysis of the site investigation and recording;
 - iv. Provision to be made and timetable for publication and dissemination of the analysis and records of the site investigation;
 - v. Provision to be made and timetable for archive deposition of the analysis and records of the site investigation; and
 - vi. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

Thereafter, the development shall be carried out in accordance with the approved details.

Ecology

43) Prior to the commencement of the development hereby approved, a Biodiversity Mitigation Scheme shall be submitted to and approved in writing by the Mineral Planning Authority. The Scheme shall be based on Sections 8, 9.1 to 9.4 and Appendix 5 of the approved 'Ecological Impact Assessment', Revision P2, dated 6 November 2019 and Sections 3.14 to 3.25 of the 'Detailed Restoration Proposals and Landscape and Ecological Management Plan', Revision P4, dated 17 December 2021. The Scheme shall be compiled by a suitably qualified ecologist and include method statements with details of further surveys, protection measures, translocation arrangements, timings of works, creation or enhancement of habitats and features, related aftercare management, monitoring, and contingency measures. The Scheme shall include (but not limited to) appropriate and precautionary method statements for:

- i. Roosting bats in trees;**
- ii. Badgers plus hedgehogs and polecats;**
- iii. Hedgerow, tree and ground nesting birds;**
- iv. Flora that will be lost;**
- v. Grass snakes and other reptiles;**
- vi. Otters;**
- vii. Other wild mammals;**
- viii. Any other legally protected or priority species that might be encountered (precautionary measures only);**
- ix. Buffer or stand-off zones for all retained hedgerows, trees, plantations and watercourses;**
- x. Checking of temporary bunds and stockpiles for protected species and their protection prior to bund or stockpile removal;**
- xi. Measures to control and prevent the spread of non-native invasive species;**
- xii. A work schedule of tasks (including a 10 year timetable and a long-term strategy for protected and priority species);**
- xiii. Monitoring and remedial or contingency measures; and**
- xiv. Ecological Clerk of Works responsible for implementation of the scheme.**

Thereafter, the development shall be carried out in accordance with the approved details. Any significant modifications to the approved details for example as a result of a protected species licence being required must be submitted to and approved in writing by the Mineral Planning Authority.

44) Notwithstanding the submitted details, prior to the commencement of the development hereby approved, an updated Landscape and Ecological Management Plan (LEMP) shall be submitted to and approved in writing by the Mineral Planning Authority. Thereafter, the development shall be carried out in accordance with the approved details.

45) The development hereby approved shall be carried out in accordance with the approved 'Arboricultural Report on Trees', dated December 2021 and drawing numbered: 2636-4-4-2-1-DR-0021-S4-P3, titled: 'Tree Protection Plan'. All protective structures installed shall be maintained until all works have been completed. No materials, soils, or equipment shall be stored

under the canopy of any retained tree or hedgerow within or immediately bordering the application site.

- 46) A fish rescue shall be carried out in accordance with the approved 'Fish Rescue Strategy – Land at Bow Farm, Ripple, Worcestershire – Planning Applications 19/000048/CM and 19/0081/TWMAJM', dated 31 August 2022. This shall include a post flood event review undertaken by a specialist contractor to ensure voids are investigated and cleared of any fish.

Stockpiles

- 47) The height of any stockpiles shall not exceed 5 metres.

Soil Handling and Storage

- 48) The development hereby approved shall be carried out in accordance with the approved Soil Handling Strategy, Revision P4, dated 8 December 2021.

- 49) Soil handling and placement shall be carried out in accordance with The Institute of Quarrying publication 'Good Practice Guide for Handling Soils in Minerals Workings' (July 2021), and only when the soils are dry and friable and in dry ground conditions.

- 50) Notwithstanding Condition 48) of this permission, soil handling and movement, including soil stripping and the construction of soil storage bunds shall not be carried out between the months of December to March inclusive.

- 51) All topsoil and subsoil shall be permanently retained on site and used in restoration. All available soil forming materials shall be recovered during excavation to achieve restoration of the site.

- 52) All topsoil, subsoil and soil forming materials shall be stored in separate bunds which:

- i. Shall be constructed with only the minimum amount of soil compaction to ensure stability and so shaped as to avoid collection of water in surface undulations;
- ii. Shall not be traversed by heavy vehicles or machinery except where essential for the purposes of mound construction or maintenance;
- iii. Shall not be subsequently moved or added to until required for restoration;
- iv. Shall have a minimum 3 metre stand-off buffer of undisturbed ground around each storage mound;
- v. Shall only store topsoil on like textured topsoil and subsoil on like textured subsoil;
- vi. Topsoil bunds shall not exceed 3 metres in height and subsoil (or subsoil substitute) bunds shall not exceed 5 metres in height; and
- vii. Shall, if continuous bunds are used, have dissimilar soils separated by a third material previously approved in writing by the Mineral Planning Authority.

- 53) No plant or vehicles shall cross any area of unstripped soil or subsoil, except where such trafficking is essential for the purposes of undertaking

permitted operations. Essential traffic routes shall be marked in such a manner as to give effect to this condition. No part of the site shall be excavated, traversed or used as a road for the stationing of plant or buildings or for the storage of subsoil, overburden, waste or mineral deposits, until all available topsoil has been stripped from that part. The exceptions are that topsoil may be stored on like topsoil and subsoil may be stored on like subsoil.

Restoration

54) Notwithstanding the submitted details, prior to the commencement of the development hereby approved, a detailed restoration scheme for the site, based on drawing numbered: 2636-4-4-2-1-DR-0007-S4-P9, titled: 'Proposed Restoration', shall be submitted to the Mineral Planning Authority for approval in writing. The detailed restoration scheme shall include:

- Final contour levels, with all levels related to Ordnance Datum and shall ensure the land is free from ponding and capable of receiving an effective artificial under-drainage system; and
- Final access arrangements, along with any ownership, tenancy, legal and funding mechanisms by which the long-term management will be secured.

The scheme shall be implemented as approved by the Mineral Planning Authority. Any significant modifications to the approved details, for example as a result of unforeseen circumstances, must be submitted to and approved in writing by the Mineral Planning Authority.

55) In the event that the winning and working of minerals ceases prior to the achievement of the completion of the approved restoration scheme referred to in Condition 54) of this permission which, in the opinion of the Mineral Planning Authority constitutes a permanent cessation, a revised scheme, to include details of restoration and aftercare, shall be submitted to the Mineral Planning Authority for approval in writing within 6 months of the cessation of the winning and working of minerals. The revised scheme shall be fully implemented within 12 months of being approved in writing by the Mineral Planning Authority or such revised timescale as shall be determined by the Mineral Planning Authority.

56) In any part of the site where differential settlement occurs during the restoration and aftercare period, the applicant, where required by the Mineral Planning Authority, shall fill the depression to the final settlement contours specified with suitable imported soils, to a specification to be agreed in writing with the Mineral Planning Authority prior to such soils being imported to the site.

Aftercare

57) The land within the application site shall undergo aftercare management for a 10-year period. Prior to any area being entered into aftercare the extent of the area and its date of entry into aftercare shall be agreed in writing with the Mineral Planning Authority.

58) Notwithstanding the submitted details, prior to the commencement of the development hereby approved, an updated outline aftercare scheme shall be submitted to the Mineral Planning Authority for approval in writing. Such a scheme shall specify the steps which are to be taken to bring the land up to the required standard for the land uses shown on the approved restoration scheme, as required by Condition 54) of this permission. These steps shall include the following:

- i. Control of invasive species;
- ii. Timing and pattern of vegetation establishment;
- iii. Cultivation practices;
- iv. Management of soil, fertility and weeds;
- v. Drainage;
- vi. Irrigation and watering;
- vii. A timetable for undertaking the aftercare scheme; and
- viii. The establishment of an aftercare working group comprising of the operator, the Mineral Planning Authority and ecological specialists including a timetable for frequency of meetings. The working group shall assess and review the detailed programmes of aftercare operations and the setting out of actions for subsequent years having regard to the condition of the land, progress on its rehabilitation and necessary maintenance.

59) A Detailed Aftercare Scheme shall be submitted within 6 months of the commencement of the development hereby approved. The approved scheme shall include a programme of aftercare operations and management to be carried out in the forthcoming year; a review of the previous years' aftercare operations and management; confirm which steps specified in the Outline Aftercare Strategy shall be carried out as originally intended; and include any modifications to the approved Outline Aftercare Strategy proposals. Thereafter, the development shall be carried out in accordance with the approved details in accordance with the approved timetable, or as amended in consultation with the Mineral Planning Authority following each aftercare working group meetings.

Interpretation Strategy

60) Within 6 months of the commencement of the development hereby approved, an interpretation strategy for cultural heritage, landscape, biodiversity and geodiversity shall be submitted to the Mineral Planning Authority for approval in writing. The Strategy shall include the content topic headings, design, size, quantity and location of any interpretation panels and the timescales for their installation. Thereafter, the development shall be carried out in accordance with the approved details.

Permitted Development Rights

61) Notwithstanding the provisions of Class A of Part 2, Class L of Part 7, and Class A and Class B of Part 17 of Schedule 2 of the Town and Country Planning (General Permitted Development) Order 2015 (as amended) (or any order revoking, re-enacting or modifying that Order), no gate, fence, wall or other means of enclosure, fixed or mobile plant, machinery, buildings, structures, erections or private ways shall be erected, extended,

installed, rearranged, replaced or altered within the site without the approval of the Mineral Planning Authority.

Other Matters

62) There shall be no crushing, screening, sorting or processing of any waste materials on the site.

63) No processing or treatment of mineral shall take place within the application site within the administrative boundaries of Worcestershire, as shown on approved drawing numbered: 2636-4-4-3-Fig.2-S4-P6, titled: 'Existing Conditions'.

64) The site shall not be open to the general public for commercial purposes.

65) No materials shall be burned on the site.

Local Liaison

66) No development shall commence until a scheme that sets out measures for liaison arrangements with the local community has been submitted to and approved in writing by the Mineral Planning Authority. Thereafter, the approved scheme shall be implemented for the duration of the development hereby approved.

Planning Permission

67) A copy of this decision notice, together with all approved plans and documents required under the conditions of this permission shall be maintained at the site office at all times throughout the duration of the development and shall be made known to any person(s) given responsibility for management or control of activities / operations on the site.

Contact Points

County Council Contact Points

County Council: 01905 763763

Worcestershire Hub: 01905 765765

Specific Contact Points for this report

Case Officer: Steven Aldridge, Team Manager – Development Management

Tel: 01905 843510

Email: saldridge@worcestershire.gov.uk

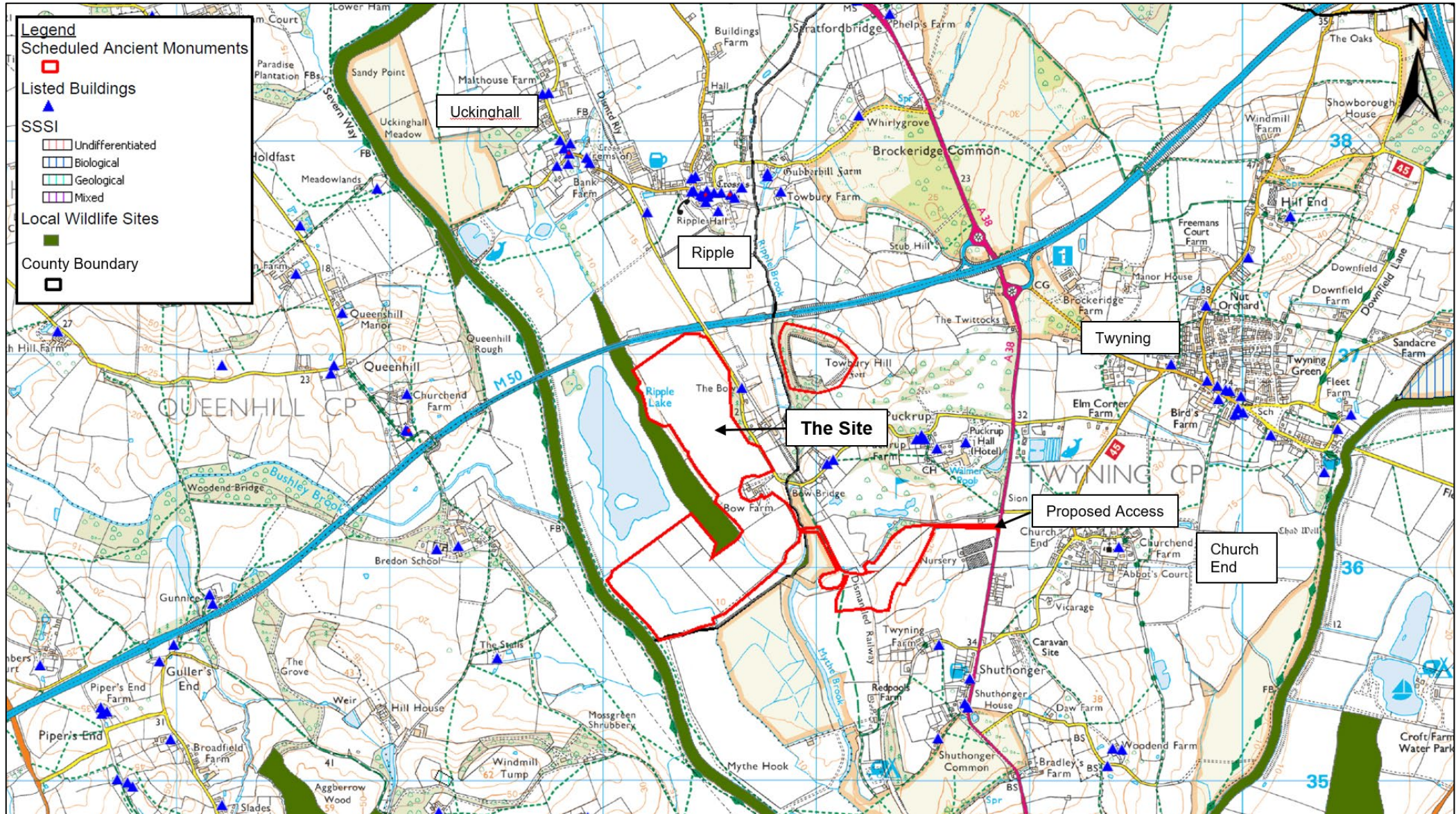
Background Papers

In the opinion of the proper officer (in this case the Head of Planning and Transport Planning) the following are the background papers relating to the subject matter of this report:

The application, plans and consultation replies in file reference: 19/000048/CM, which can be viewed online at: <http://www.worcestershire.gov.uk/eplanning> by entering the full

application reference. When searching by application reference, the full application reference number, including the suffix need to be entered into the search field. Copies of letters of representation are available on request from the Case Officer.

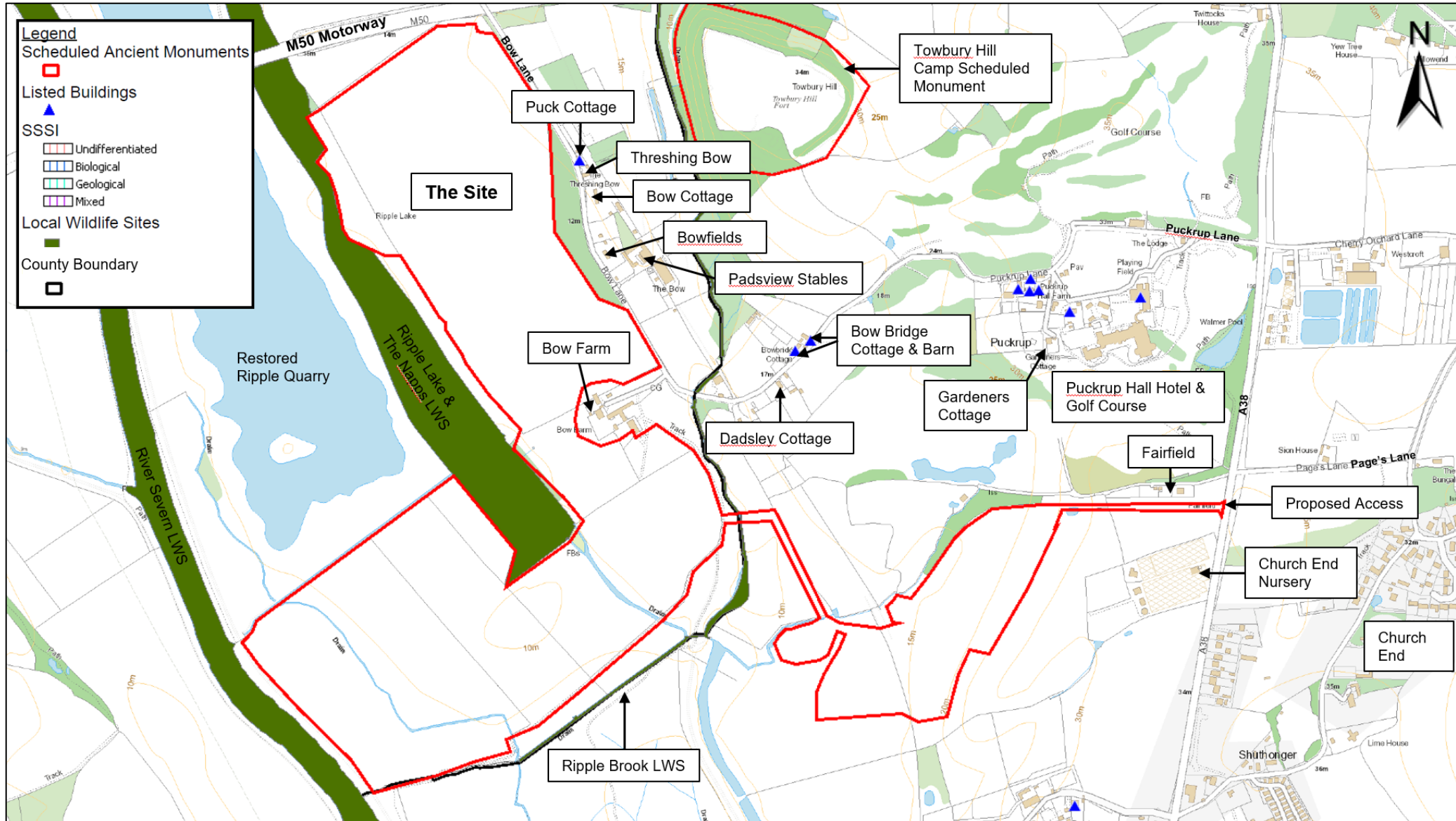
Committee Plan 1



Proposed extraction of sand and gravel with restoration using site derived and imported inert material to wetland, nature conservation and agriculture (cross-boundary application) on land at Bow Farm, Bow Lane, Ripple, Worcestershire. Ref: 19/00048/CM

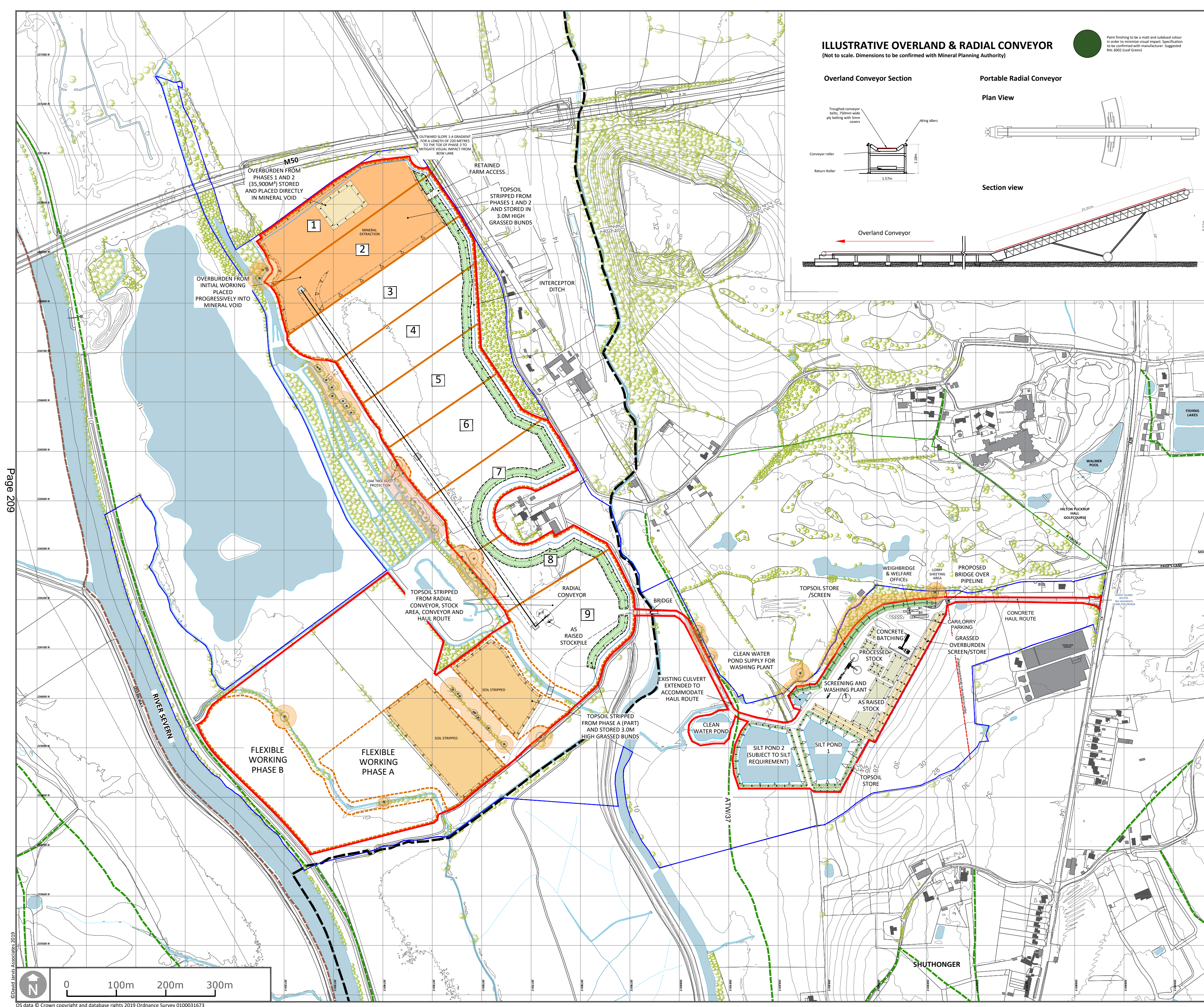
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Committee Plan 2

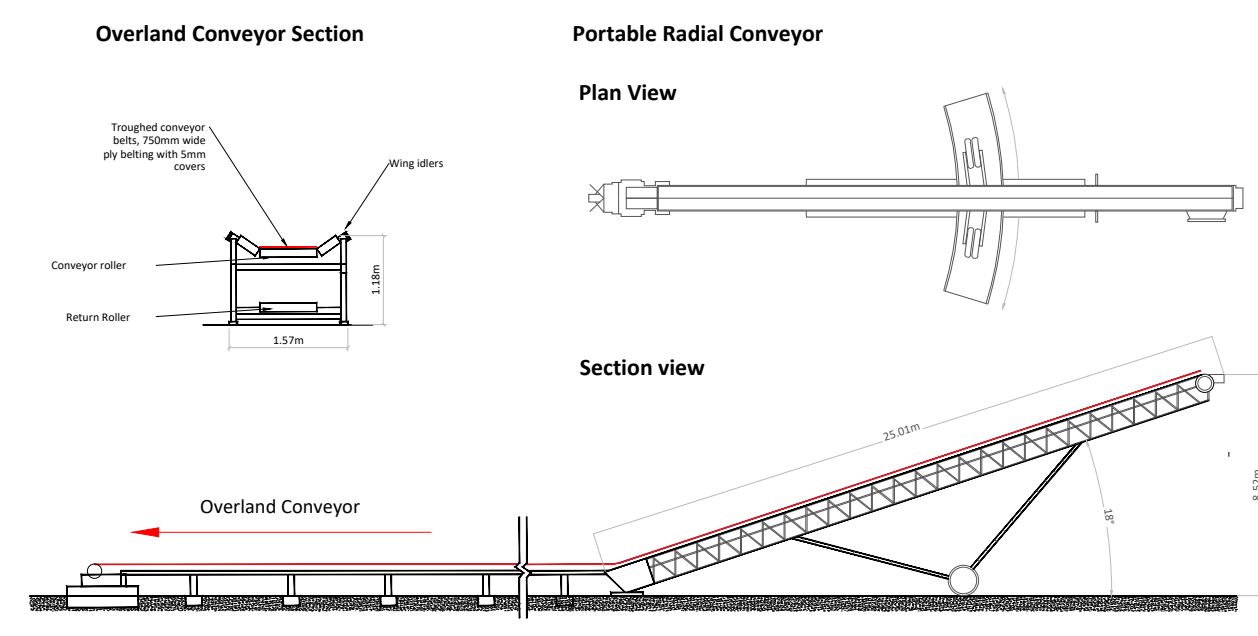


Proposed extraction of sand and gravel with restoration using site derived and imported inert material to wetland, nature conservation and agriculture (cross-boundary application) on land at Bow Farm, Bow Lane, Ripple, Worcestershire. Ref: 19/000048/CM

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ILLUSTRATIVE OVERLAND & RADIAL CONVEYOR
(Not to scale. Dimensions to be confirmed with Mineral Planning Authority)



Paint finishing to be a matt and subdued colour in order to minimize visual impact. Specification to be confirmed with manufacturer. Suggested R4, 0022 (Leaf Green)

KEY

	BOUNDARY: APPLICATION SITE
	BOUNDARY: OWNERSHIP
	EXISTING VEGETATION
	EXISTING BRIDLEWAY AND REFERENCE
	BOUNDARY: PROPOSED LIMIT OF MINERAL EXTRACTION
	BOUNDARY: PROPOSED MINERAL EXTRACTION PHASE
	EXISTING CONTOURS AT 2.0M INTERVALS
	TREE ROOT PROTECTION AREA

Notes
Existing hedgerow enhancement works to be enacted prior to the commencement of Phase 1 Restoration

Issue: Drawn by David Jarvis Associates Limited (CROWN COPYRIGHT. ALL RIGHTS RESERVED 2019 LICENCE NUMBER 0100031). This drawing is for Planning purposes only - Do not use this drawing for Construction. The information contained in the drawing should be used as a guide to the final forms and finishes of the landscape scheme. Any revisions to be approved by the Client and Local Authority

Scaling: Do not scale this drawing. Use given dimensions only.
Drawing Revision

Rev.	Date	Description	Drawn	Checked
P4	29/03/19	Changes to Silt Lagoons	JL	AC
P5	21/07/20	Interceptor ditch extension	MP	AC
P6	08/12/20	Extraction boundary revision	MP	AC
P7	19/01/21	Overland conveyor alignment	MP	AC
P8	17/08/21	Crack willow exclusion	MP	AC
P9	08/12/21	Veteran tree exclusion	MP	AC

Status
FINAL ISSUE

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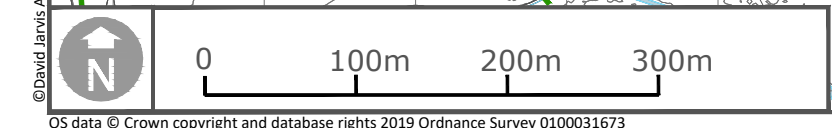
Client
M.C. CULLIMORE (GRAVELS) LTD

Project
BOW FARM

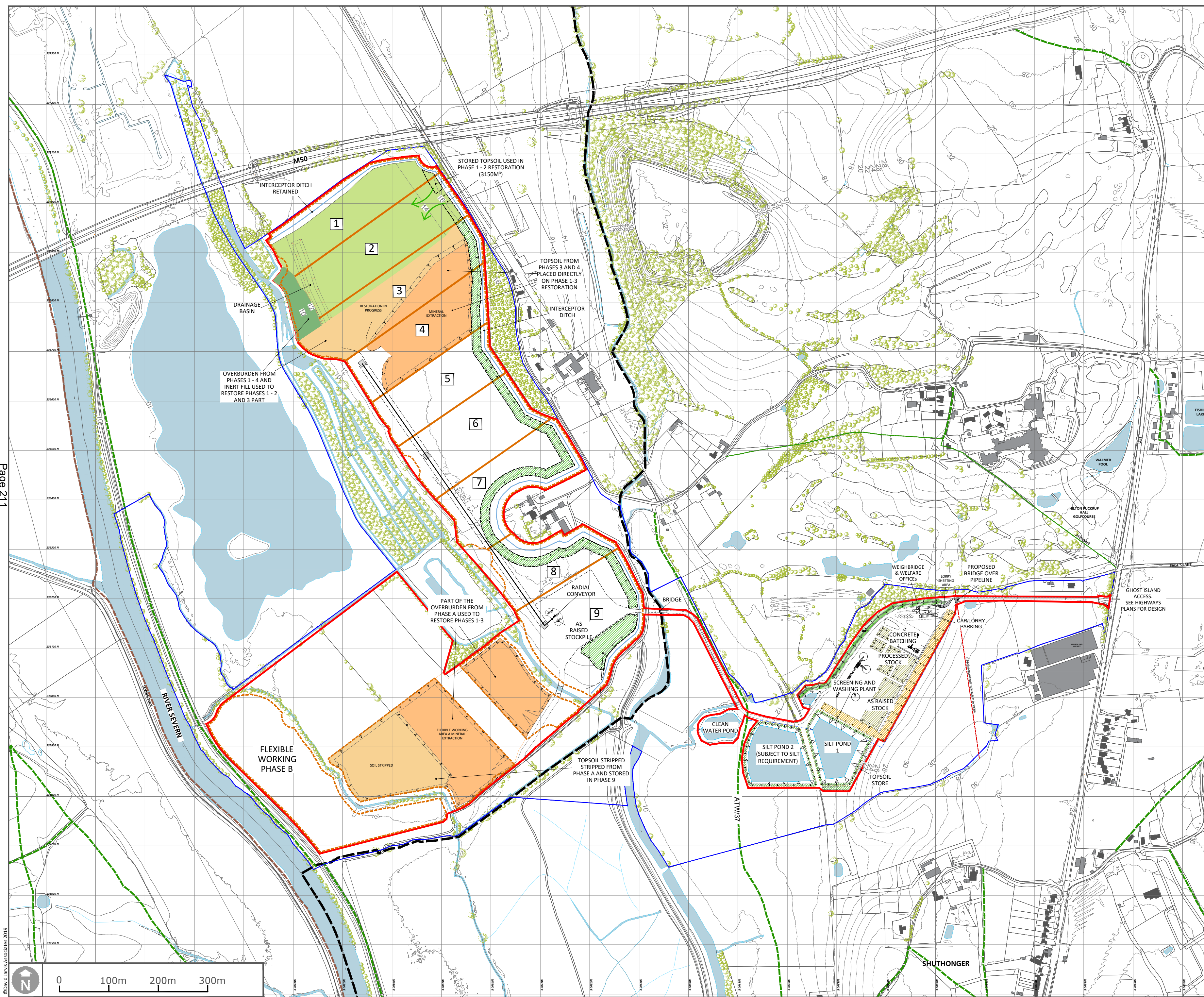
Drawing Title
INITIAL WORKS AND PHASE 1 EXTRACTION

Scale 1:5,000	Sheet Size A2	Date DEC 2021
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Client Ref. -	Drawing Ref. 2636-4-4-2-1	Drawing No. DR-0002	Status S4-P9
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KEY

- BOUNDARY: APPLICATION SITE
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- BOUNDARY: PROPOSED LIMIT OF MINERAL EXTRACTION
- BOUNDARY: PROPOSED MINERAL EXTRACTION PHASE
- EXISTING CONTOURS AT 2.0M INTERVALS

Notes

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Drawing Revision

Rev.	Date	Description	Drawn	Checked
P4	29/03/19	Changes to Silt Lagoons	JL	AC
P2	19/06/18	Changes to topsoil bunds	JL	JM
P3	19/02/19	Application boundary added	JL	AC
P4	05/11/19	Interceptor ditch addition	MP	AC
P5	21/07/20	Interceptor ditch extension	MP	AC
P6	19/02/21	Overland Conveyor alignment	MP	AC
P7	17/08/21	Crack willow exclusion	MP	AC
P8	08/12/21	Veteran tree exclusion	MP	AC

Status

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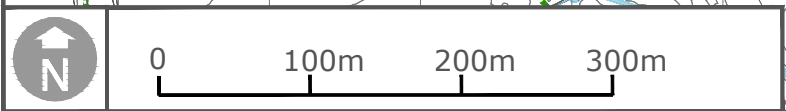
Project

BOW FARM

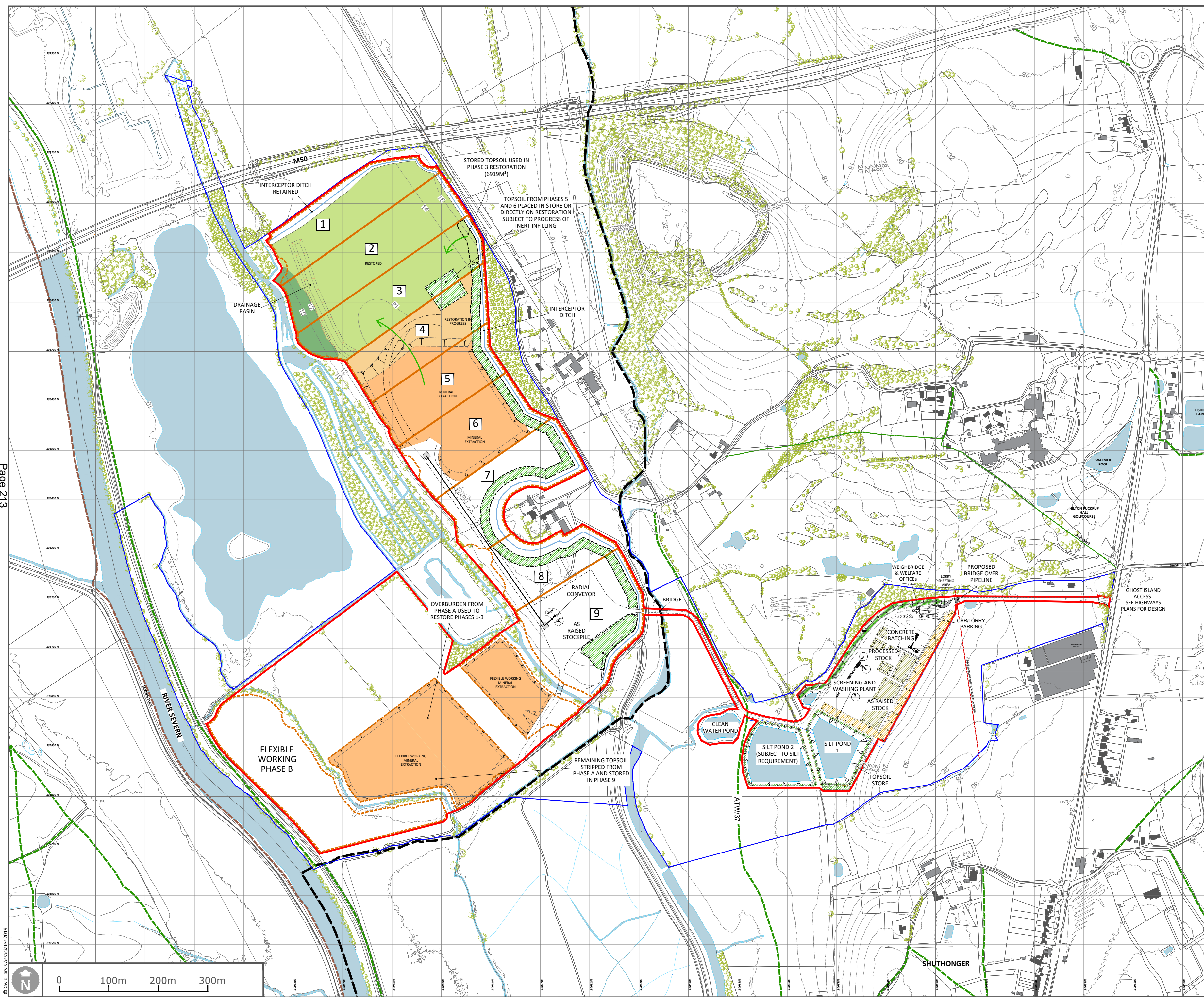
Drawing Title

PHASES 3 AND 4 EXTRACTION

Scale	Sheet Size	Date
1:5,000	A2	DEC 2021
Client Ref.	Drawing Ref.	Drawing No.
-	2636-4-4-2-1	DR-0003
Status	S4-P8	



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KEY

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- BOUNDARY: PROPOSED MINERAL EXTRACTION PHASE
- EXISTING CONTOURS AT 2.0M INTERVALS

Notes

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Drawing Revision

Rev.	Date	Description	Drawn	Checked
P2	19/06/18	Changes to topsoil bunds	JL	JM
P3	19/02/19	Application boundary added	JL	AC
P4	05/11/19	Interceptor ditch addition	MP	AC
P5	21/07/20	Interceptor ditch extension	MP	AC
P6	19/02/21	Overland Conveyor alignment	MP	AC
P7	17/08/21	Crack willow exclusion	MP	AC
P8	08/12/21	Veteran tree exclusion	MP	AC

Status

FINAL ISSUE

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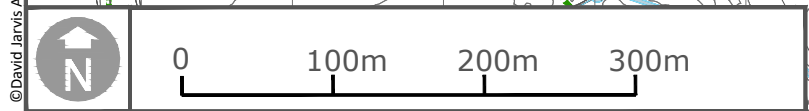
Project

BOW FARM

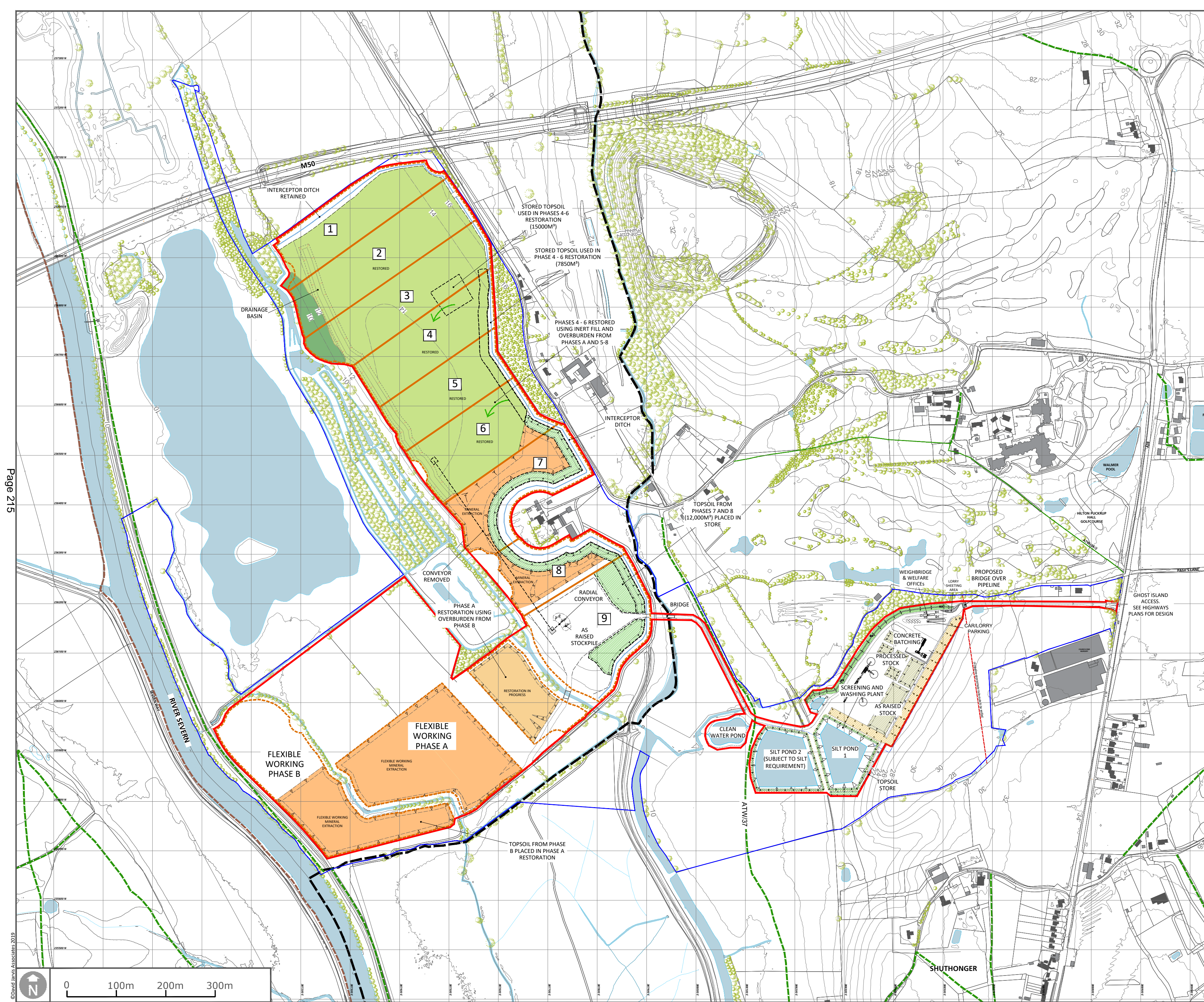
Drawing Title

PHASES 5 AND 6 EXTRACTION

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1:5,000	A2	DEC 2021	
Client Ref.	Drawing Ref.	Drawing No.	Status
-	2636-4-4-2-1	DR-0004	S4-P8



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KEY

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	BOUNDARY: PROPOSED MINERAL EXTRACTION PHASE
	EXISTING CONTOURS AT 2.0M INTERVALS

Notes

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Rev.	Date	Description	Drawn	Checked
P2	19/06/18	Changes to topsoil bunds	JL	JM
P3	19/02/19	Application boundary added	JL	AC
P4	05/11/19	Interceptor ditch addition	MP	AC
P5	21/07/20	Interceptor ditch extension	MP	AC
P6	19/02/21	Overland Conveyor alignment	MP	AC
P7	17/08/21	Crack willow exclusion	MP	AC
P8	08/12/21	Veteran tree exclusion	MP	AC

Status

FINAL ISSUE

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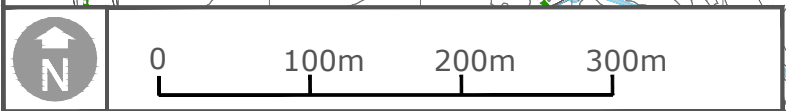
Project

BOW FARM

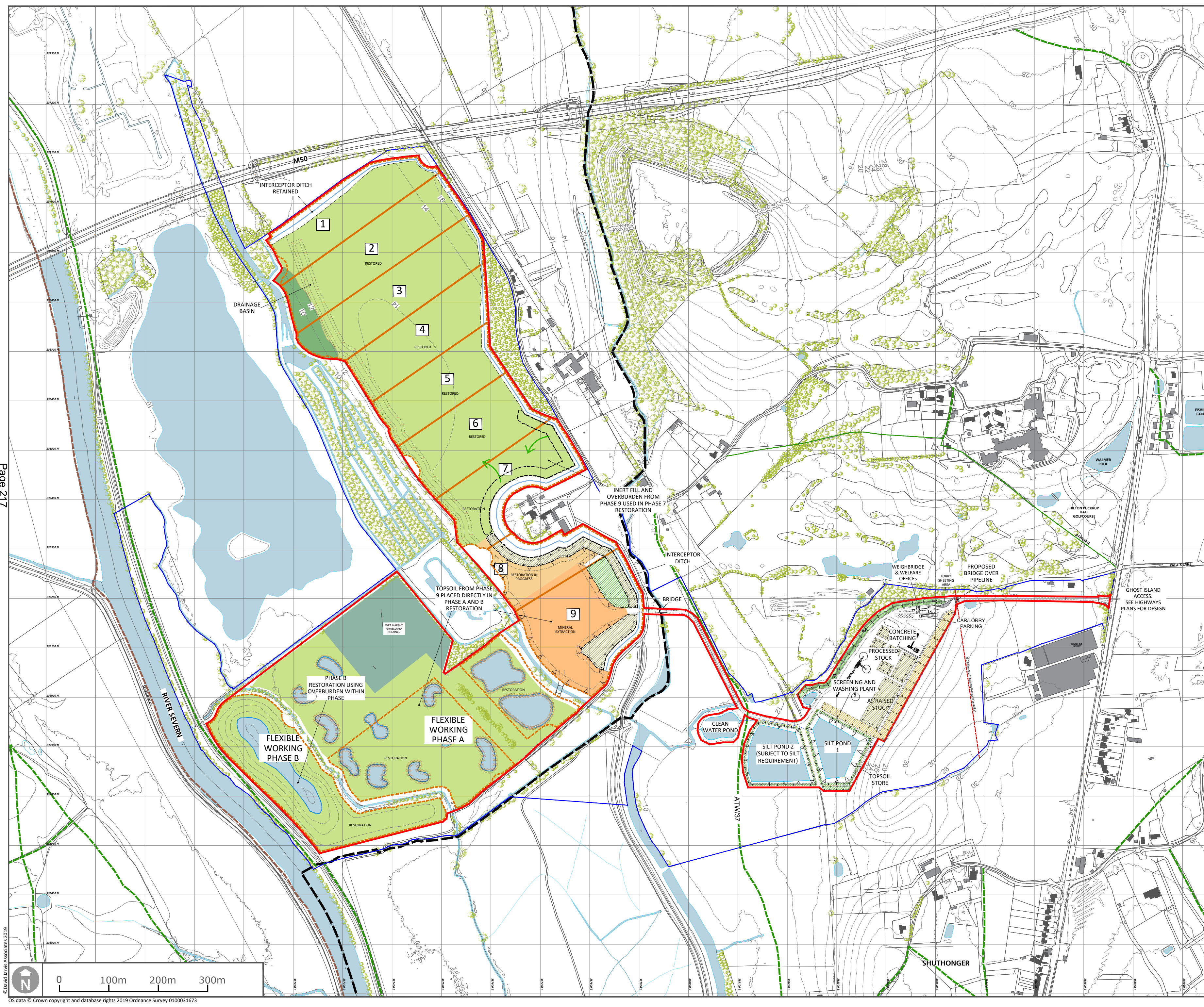
Drawing Title

PHASES 7, 8 AND B EXTRACTION

Scale	Sheet Size	Date	
1:5,000	A2	DEC 2021	
Client Ref.	Drawing Ref.	Drawing No.	Status
-	2636-4-4-2-1	DR-0005	S4-P8



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- BOUNDARY: PROPOSED MINERAL EXTRACTION PHASE
- EXISTING CONTOURS AT 2.0M INTERVALS
- PROPOSED WATERBODIES
- RETAINED MARSHY GRASSLAND

Notes

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Drawing Revision

Rev.	Date	Description	Drawn	Checked
P2	19/06/18	Changes to topsoil bunds	JL	JM
P3	19/02/19	Application boundary added	JL	AC
P4	05/11/19	Interceptor ditch addition	MP	AC
P5	21/07/20	Interceptor ditch extension	MP	AC
P6	19/02/21	Overland Conveyor alignment	MP	AC
P7	19/02/21	Drainage basin and Wet Marsh retained	MP	AC
P8	17/08/21	Crack willow exclusion	MP	AC
P9	08/12/21	Veteran tree exclusion & island removal	MP	AC

Status

FINAL ISSUE

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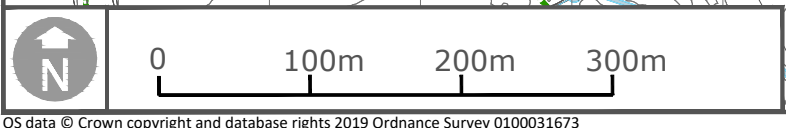
Project

BOW FARM

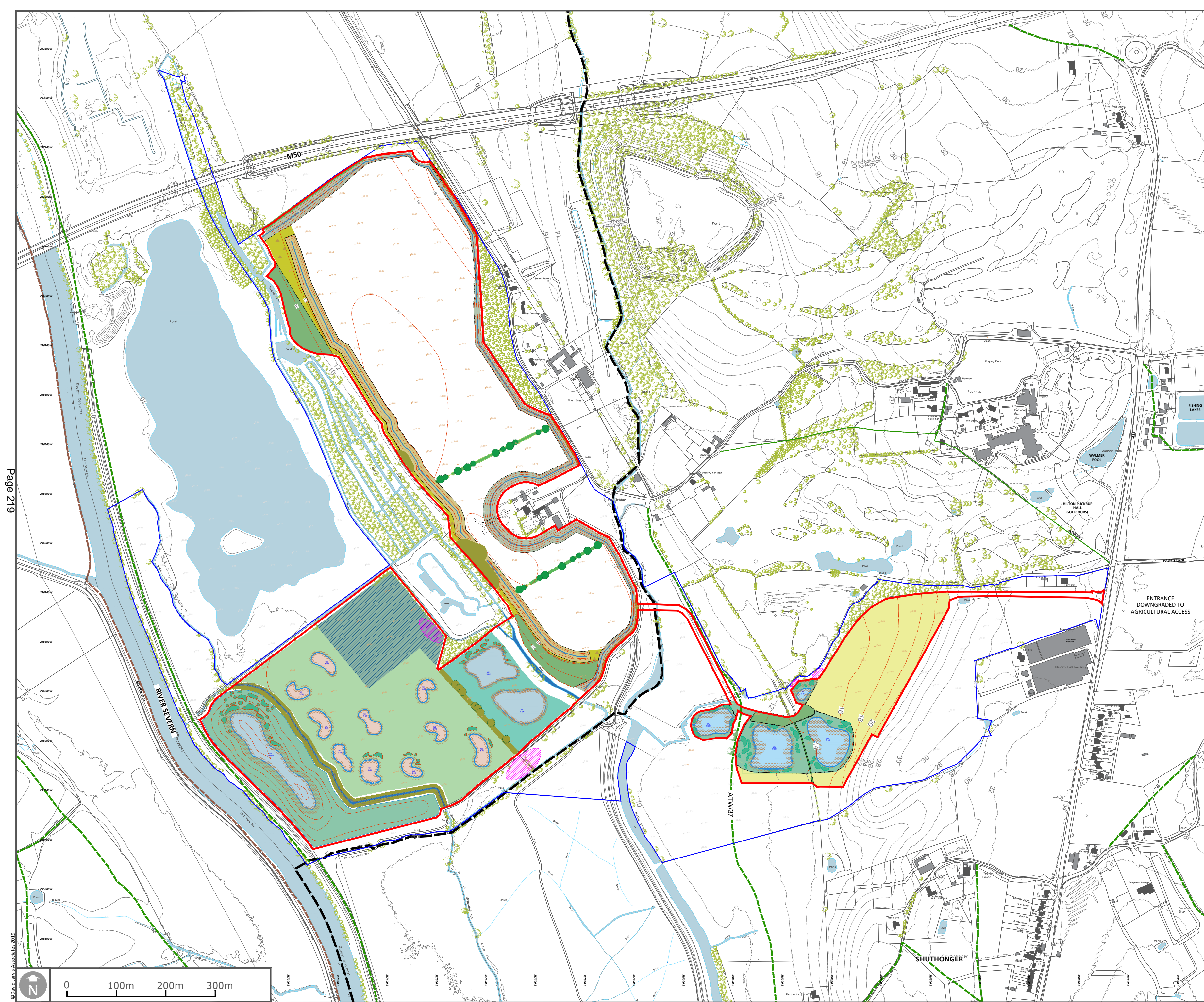
Drawing Title

PHASE 9 EXTRACTION

Scale	Sheet Size	Date
1:5,000	A2	DEC 2021
Client Ref.	Drawing Ref.	Drawing No.
-	2636-4-4-2-1	DR-0006
Status	S4-P9	



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KEY

- BOUNDARY: APPLICATION SITE
- BOUNDARY: OWNERSHIP
- EXISTING VEGETATION
- ATW/37 EXISTING BRIDLEWAY AND REFERENCE
- EXISTING CONTOURS AT 2.0M INTERVALS
- PROPOSED CONTOURS AT 2.0M INTERVALS
- REINSTATED ARABLE FARMLAND
- ARABLE FIELD MARGINS & HIBERNACULA TIMBER PILES
- PROPOSED WET GRASSLAND & SCRAPES
- PROPOSED OPEN WATER, SCRUB & WATERBODIES
- PROPOSED WET GRASSLAND & SCRUB
- PROPOSED DECIDUOUS WOODLAND
- EXISTING HEDGEROW & TREES
- REINSTATED NATIVE HEDGEROW
- PROPOSED WATERBODIES
- EXISTING WATERCOURSE
- RETAINED DRAINAGE BASIN
- RETAINED INTERCEPTOR DITCH
- RETAINED MARSHY GRASSLAND
- HIBERNACULA FELLED TIMBER

Notes

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Drawing Revision

Rev.	Date	Description	Drawn	Checked
P2	19/06/18	Updates to restoration	JL	JM
P3	19/02/19	Updates to restoration	JL	AC
P4	04/11/19	Addition of infiltration basin	MP	AC
P5	06/08/20	Changes to reflect ecologist report	MP	AC
P6	19/01/21	Root protection areas	MP	AC
P7	27/01/21	Drainage basin and marshy grassland	MP	AC
P8	17/08/21	Hibernacula piles	MP	AC
P9	08/12/21	Veteran tree exclusion & island removal	MP	AC

Status

FINAL ISSUE

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Client

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Project

BOW FARM

Drawing Title

PROPOSED RESTORATION

Scale	Sheet Size	Date	
1:5,000	A2	DEC 2021	
Client Ref.	Drawing Ref.	Drawing No.	Status
-	2636-4-4-2-1	DR-0007	S4-P9

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