

Our Revised Proposals

January 2024



In March 2023, Hive submitted a planning application for proposals to carefully extract pulverised fuel ash ('PFA') from former ash disposal lagoons located to the north of Retford near Lound and Sutton cum Lound to Nottinghamshire County Council ('NCC').

The project site, known as the RCEP Site (indicated in red in Figure 1) comprises approximately 113.55 hectares (279 acres) of predominantly agricultural land and part of the former Bellmoor Quarry processing site.

Most of the land is elevated above prevailing ground levels; with its land uses and ground cover being characteristic of surrounding agricultural and industrial uses.

Located to the south and east of the RCEP site is the Sutton and Lound Gravel Pits Site of Special Scientific Interest ('SSSI'), which is part of the Idle Valley Nature Reserve, with a public footpath crossing the site between Sutton cum Lound and the nature reserve.

Significant industrial land uses to the north and south of the RCEP Site include the pre-cast concrete works on Chainbridge Lane and the Bellmoor Industrial Estate off the A638.

After submitting our planning application to NCC, we received additional feedback from a range of stakeholders including members of the public, the Environment Agency, Nottinghamshire Wildlife Trust, and the Highways Authority. Careful consideration of this feedback over the last seven months has contributed towards the revised proposals we recently submitted to NCC.

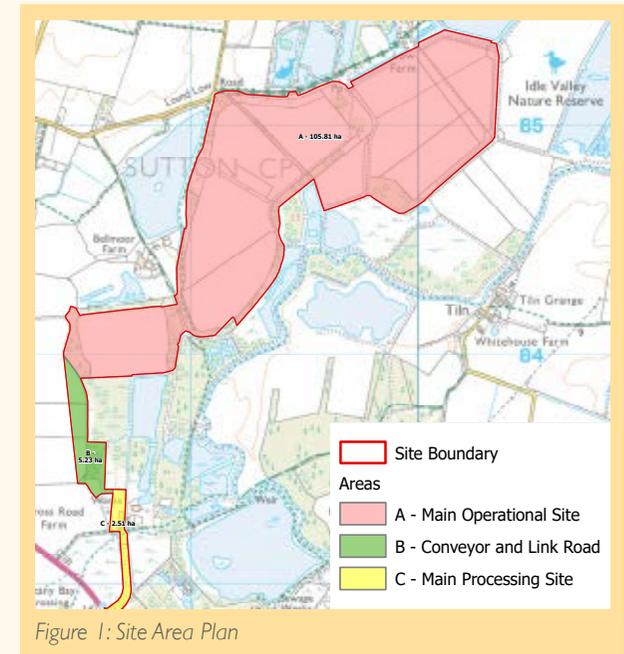


Figure 1: Site Area Plan

1. Updating our Original Proposals

We have amended the proposals in light of consultee comments and in response to a request for further information from NCC.

NCC formally issued a Regulation 25 request to us on 2nd November 2023 requesting further environmental information to determine the planning application.

Appointing additional industry experts to review the request alongside our existing environmental and planning advisors, we have invested in preparing an updated working scheme and restoration plan.

These provide operational benefits, environmental benefits, and respond to the consultation responses received. The revised scheme is hereafter referred to as the 'Amended Proposed Development'.

The Regulation 25 submission includes updated documents comprising an Environmental Statement Addendum and a suite of new and revised plans and drawings.

Regulation 25 – Request for further information and updated application

Regulation 25 of the EIA Regulations allows a local planning authority to request further information in respect of an Environmental Statement to help it make an informed decision on the planning application.



2. Overview of Amended Proposed Development

The main drivers for the Amended Proposed Development are:

- **Further reduce the potential for dust, noise, and visual amenity** associated with extraction and processing activities on the surrounding area, including the closest residential properties, by providing more robust, clear, and detailed management and mitigation measures to control any potential impacts.
- **Minimise impacts on the Sutton and Lound Gravel Pits SSSI**, including avoidance of direct impacts. The small area of embankment with SSSI designation that sits outside of woodland within the RCEP Site will be permanently retained, avoiding any direct impacts on the SSSI.
- **Provide further improvements to the proposed restoration scheme** to deliver greater ecological Benefits, increased Biodiversity Net Gain, and high quality formal and permissive routes for recreation and public access to nature.

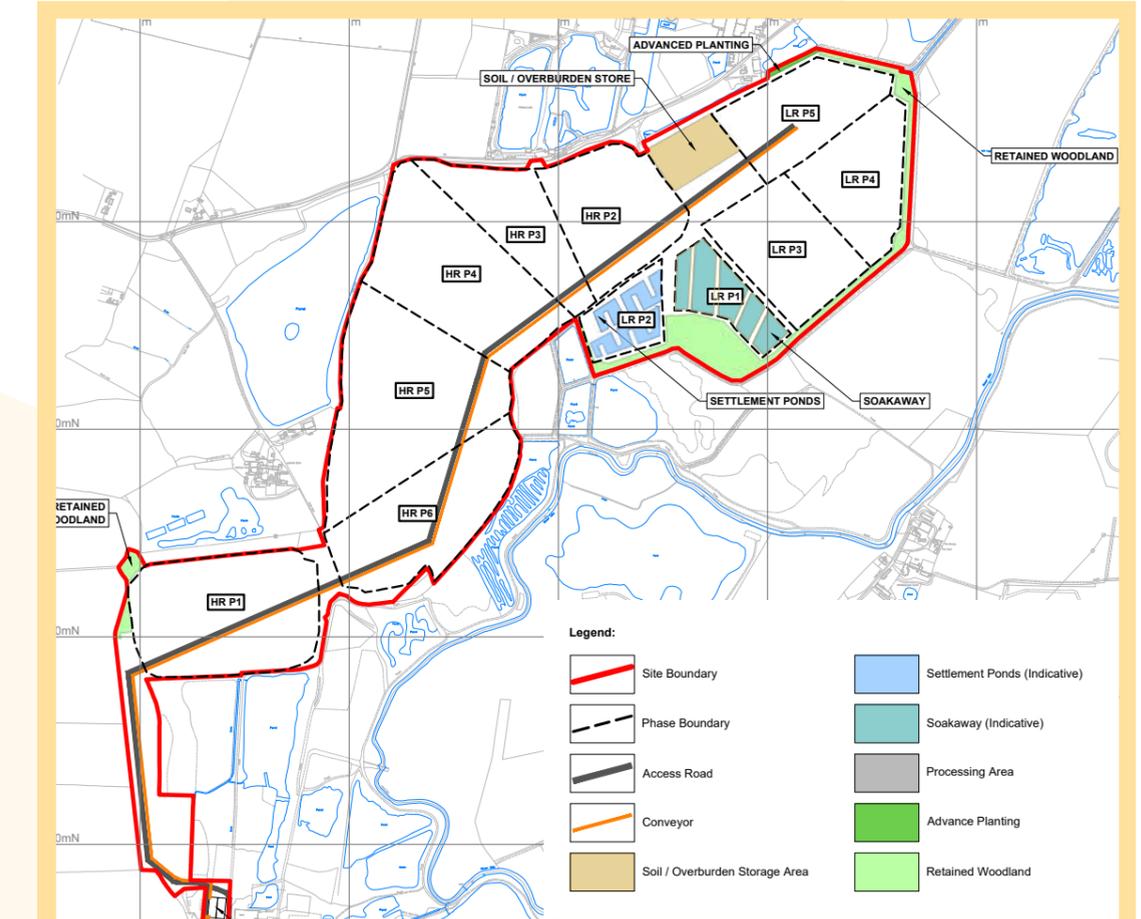


Figure 2: Outline Site Layout

Guiding Principles

In response to these drivers, a Revised Working Scheme has been developed as a key part of the Amended Proposed Development, with the following guiding principles:

- Operations have been placed at the centre of the site away from residential properties to the north and the nature reserve to the south of the extraction area to reduce any impacts associated with dust, noise and visual amenity.
- A focussed method of extraction working at a lower level behind the existing lagoon embankments to screen activity;
- Maximise the use of covered conveyors, so open air activities are contained within a small area;



Figure 4: Conveyor close-up



Figure 5: Conveyor distance shot

Example close up and long shot images of the covered field conveyor shows how it could seamlessly blend into the natural landscape, making it largely invisible while also eliminating airborne dust generation.

- Adoption of a progressive and systematic approach to extraction that works in 'Micro-Phases' east from HR P1 (the first extraction phase), so extraction activities are contained in a single small area comprising <1% of the RCEP site, reducing the area of impact;
- Minimise vehicle movements and tracking through the extraction area by moving the conveyor reception hopper and processing equipment with the extraction face to reduce travel distance by 100s of metres; and
- No pumping and dewatering of the extraction void to protect water levels in the nature reserve and other ponds/lakes in the surrounding area.

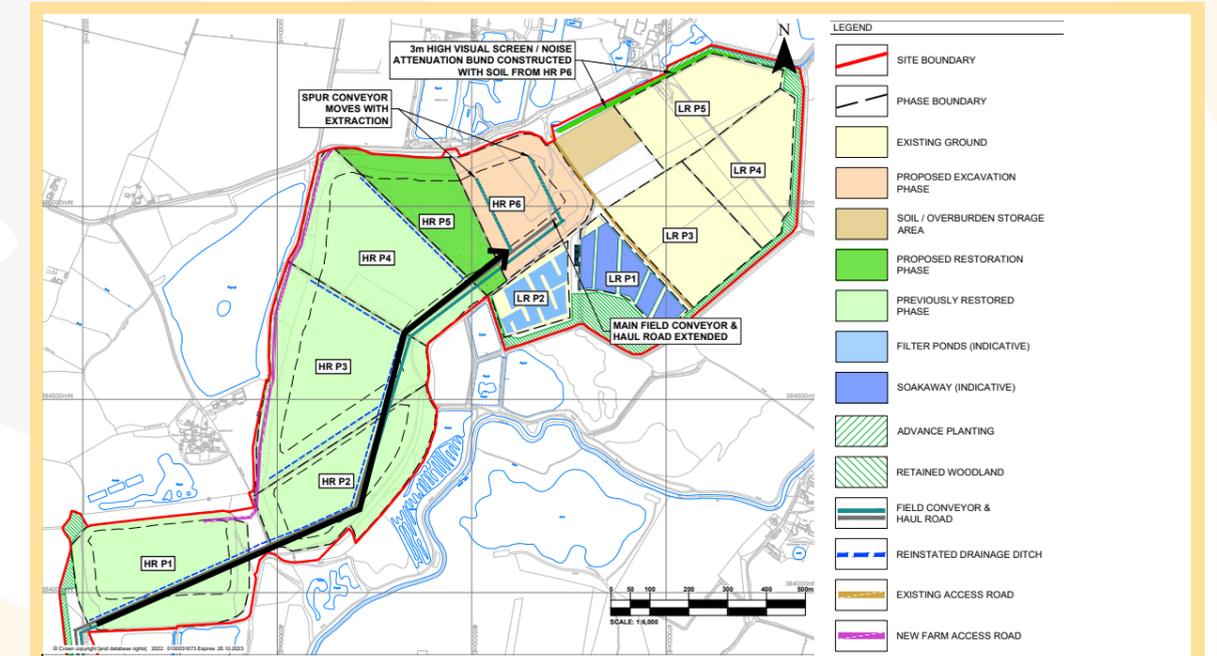


Figure 6: Phasing plan

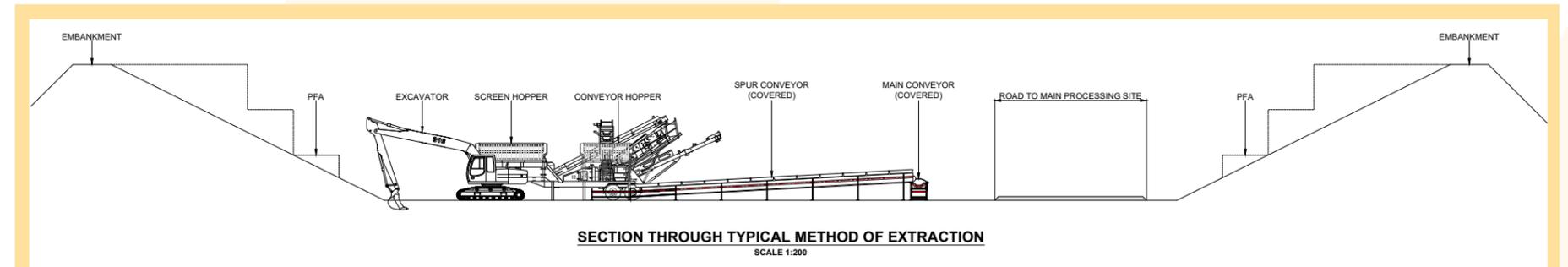


Figure 7: Example Extraction Method Plan & Section

3. Advantages of the Revised Working Scheme

The Revised Working Scheme presents several advantages over the original scheme;

- Enabling the maintenance road and the conveyor to be extended progressively at a lower level through the created void behind the lagoon embankments as extraction commences easterly through the extraction area.
- Additionally, the use of covered conveyors prevents PFA from being impacted by wind and eliminates the production of dust here and the need for vehicles travelling backwards and forwards to the Main Processing Site.
- Removing the semi-fixed Processing Areas by positioning mobile processing equipment (shredder; screen and conveyor hopper) close to the extraction face which can move with each Micro-Phase eliminates the requirement for remote processing and long haulage distances.
- The removal of the Processing Area under the new Micro-Phase approach also means the existing access and maintenance track from Lound Low Road to the NWT land will remain open in its current form;

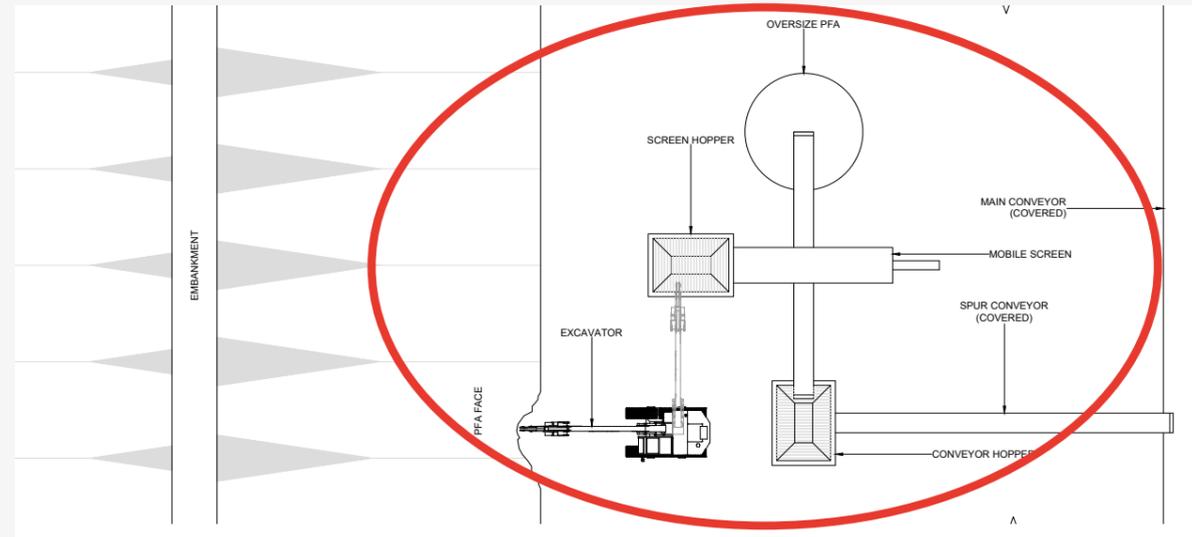


Figure 8: Example extraction method

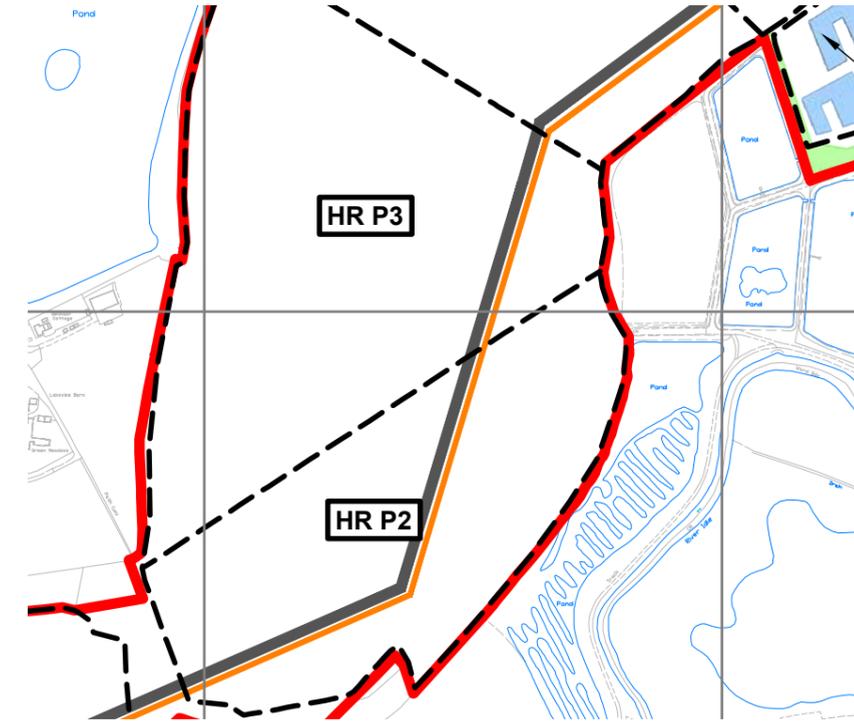


Figure 9: Site Establishment & HR Phase I Excavation

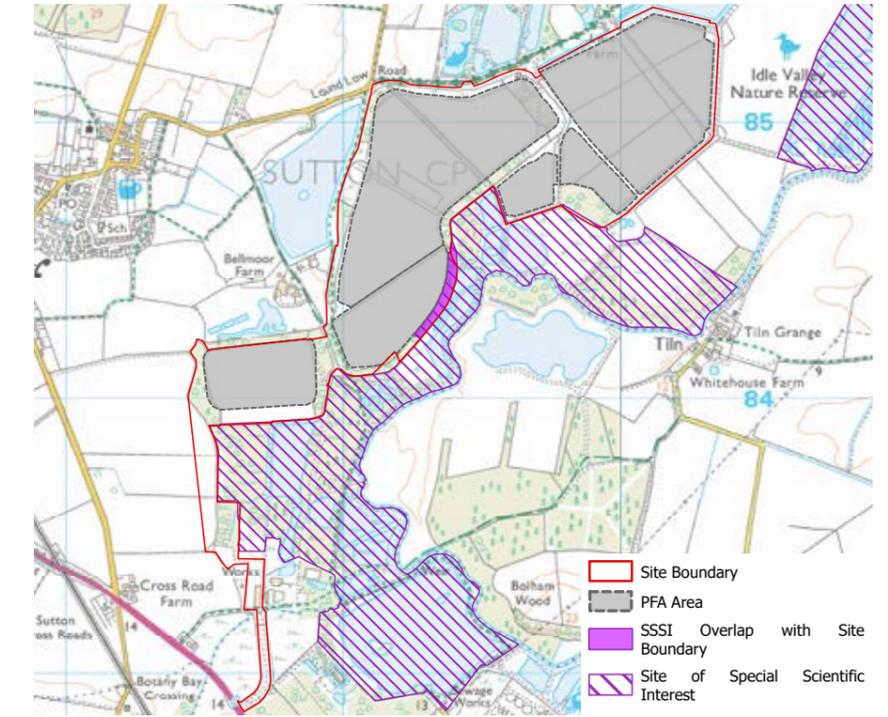


Figure 10: SSSI embankment overlap

- The repositioning of the main conveyor further away from the SSSI, with the addition of a new, adjustable spur conveyor to place the reception hopper as close as possible to the extraction face, to limit the open-air handling of PFA.
- This includes using enclosed conveyor belts to transport PFA from the extraction face to the Main Processing Site. Importantly, when the PFA is fed into the conveyor hopper, dust is eliminated from this point on because handling and processing is fully enclosed.
- The design effectively provides a cut-off for dust generating activities at the conveyor hopper in the extraction area.
- Permanently retaining a large section of the lagoon embankment along the southern boundary of the extraction area, including where the RCEP Site boundary overlaps with a small section of the SSSI (marked in purple in Figure 10 above), to avoid any direct impacts on the SSSI and ensure a permanent buffer is retained to the features for which the SSSI is designated.

Micro-Phases

Extraction will be carried out in Micro-Phases. This means that each phase would be split into smaller areas that would be stripped and then extracted progressively.

The Micro-Phases illustrated in Figure 11 are approximately 0.5-1.0 ha each in area, meaning less than 1% of the total extraction area would be undergoing active extraction at any given time.

Additionally, restoration would begin on each Micro-Phase as soon as the extraction of PFA is complete. Material available in the lagoon embankments and stored on-site would be used to immediately cover each area and achieve the required restoration levels – serving to extensively limit uncovered areas at any given time.

It is acknowledged that soil stripping, which is required to access the PFA and must take place at surface level, has greater potential to give rise to dust, noise and visual impacts. However, it is important to establish that soil stripping is only required for a maximum of 10 days per year, and minimum of around four days per year.

Additionally, by using Micro-Phases, we have greater control over when stripping takes place. This means that adverse weather conditions could be avoided (for example, particularly windy or dry conditions), and it is possible to work outside of key seasons for sensitive ecological receptors.

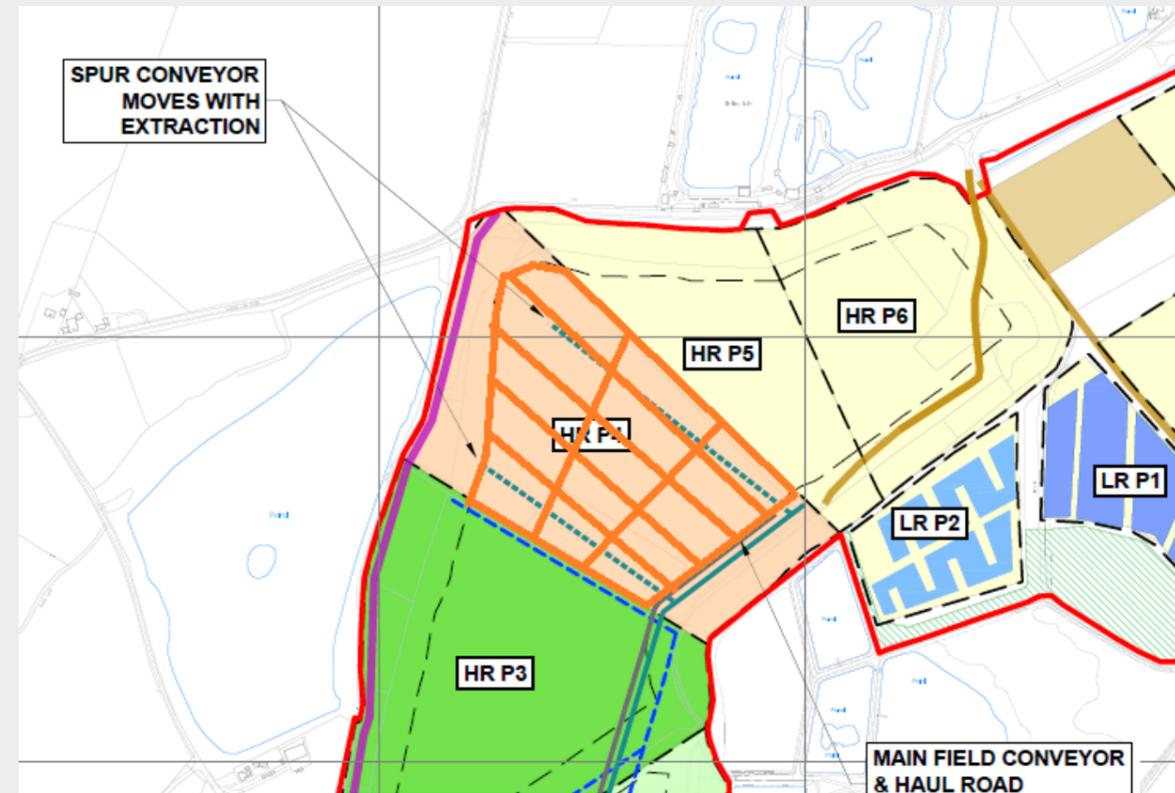


Figure 11

Embankment Screening

Approximately 82% of the extraction process would occur within the High-Rise ('HR') lagoons where most sensitive receptors are closest to the RCEP Site.

By working progressively eastwards, the extraction process would take place at a lower level and be contained behind the existing sandstone embankments, which are around eight metres high.

Where extraction would take place in the Low-Rise ('LR') lagoon area, where embankments are still two to three metres high, the existing screening would be supplemented with three metre high earth embankments and/or acoustic fencing at the locations denoted by the green lines shown in Figure 12 to further mitigate impacts.

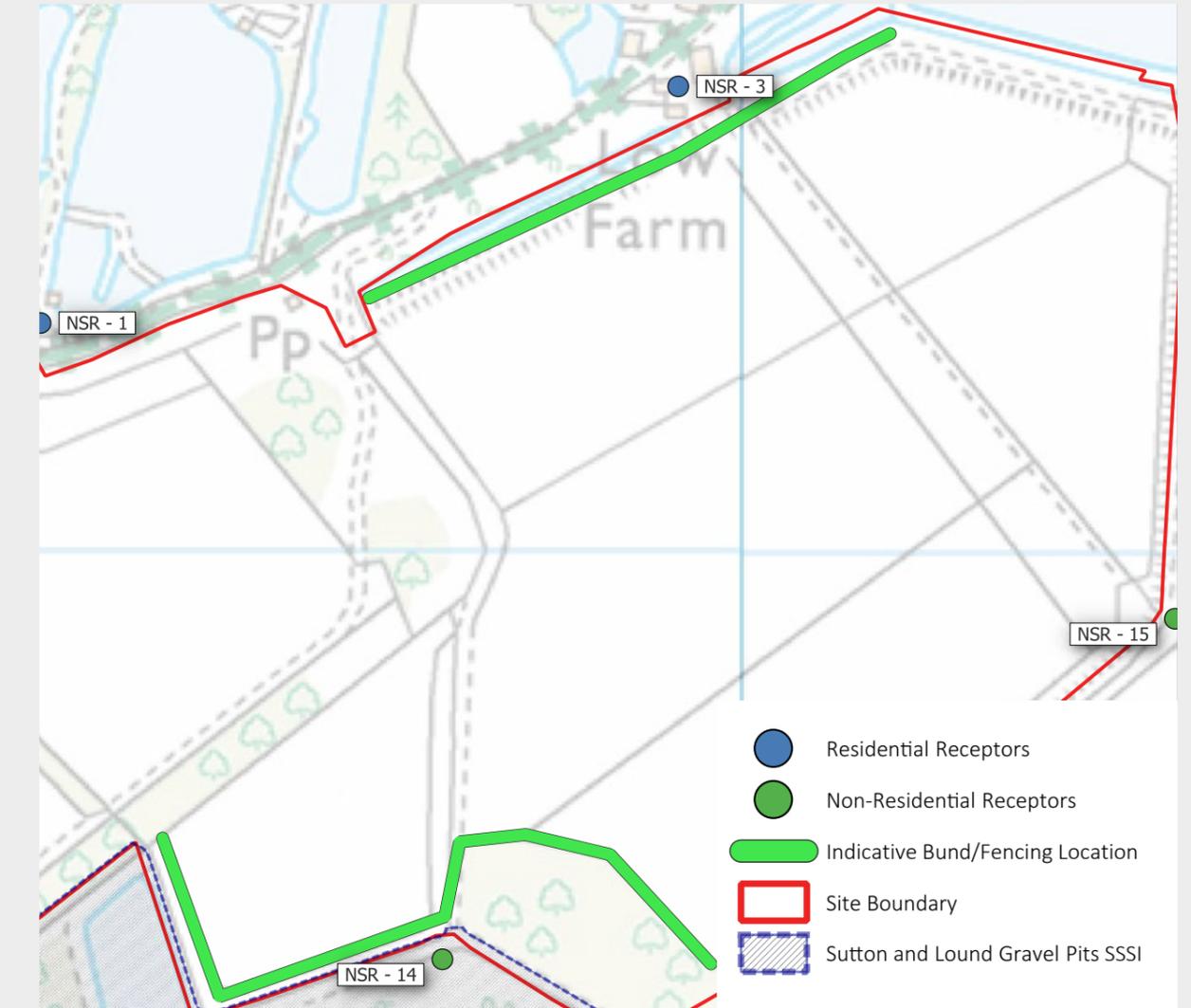


Figure 12: Low Rise lagoon bund location

4. Project Stages

1

Stage 1

Stage 1 would be undertaken within the High-Rise area in the southwest of the RCEP Site. Following soil stripping, extraction would start by digging a cut into the southern western corner of HR P1 (the first extraction phase) and digging an extraction base down to around five metres below surface in an area located as far away from noise sensitive receptors as is possible.

The maintenance road and conveyor would then be extended into the cut to create the extraction area and facilitate the means to transport PFA from the extraction area to the Main Processing Site on the Bellmoor Industrial Estate.

Following extraction of the PFA, HR P1 would be restored using material available in the lagoon embankments to achieve the required restoration levels. Importantly, the HR P1 embankments would only be removed when extraction is complete, meaning that extraction is always screened.

The conveyor and maintenance road would then be extended into HR P2 over a revised crossing location. The extraction process, conveyor and maintenance road would then be progressively extended.

The direction of extraction through the Site is detailed in Figure 13.

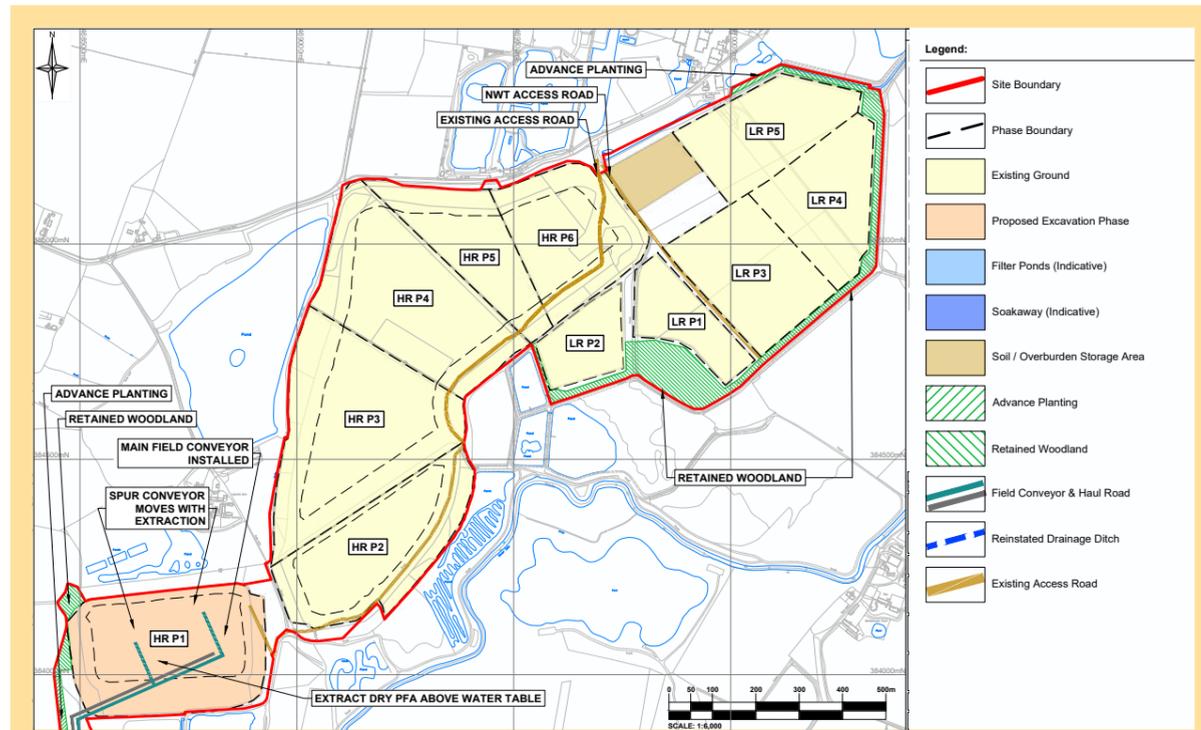


Figure 13: Stage 1 - Site establishment & HR Phase 1 excavation

2

Stage 2

A filter pond would be constructed with LR P2 and a soakaway in LR P1 to manage water (for water bowser use etc). If necessary, it could also clean collected surface water.

The filter ponds and soakaway were required under the original scheme to manage water pumped from the extraction void. This is no longer necessary because pumped dewatering is no longer proposed.

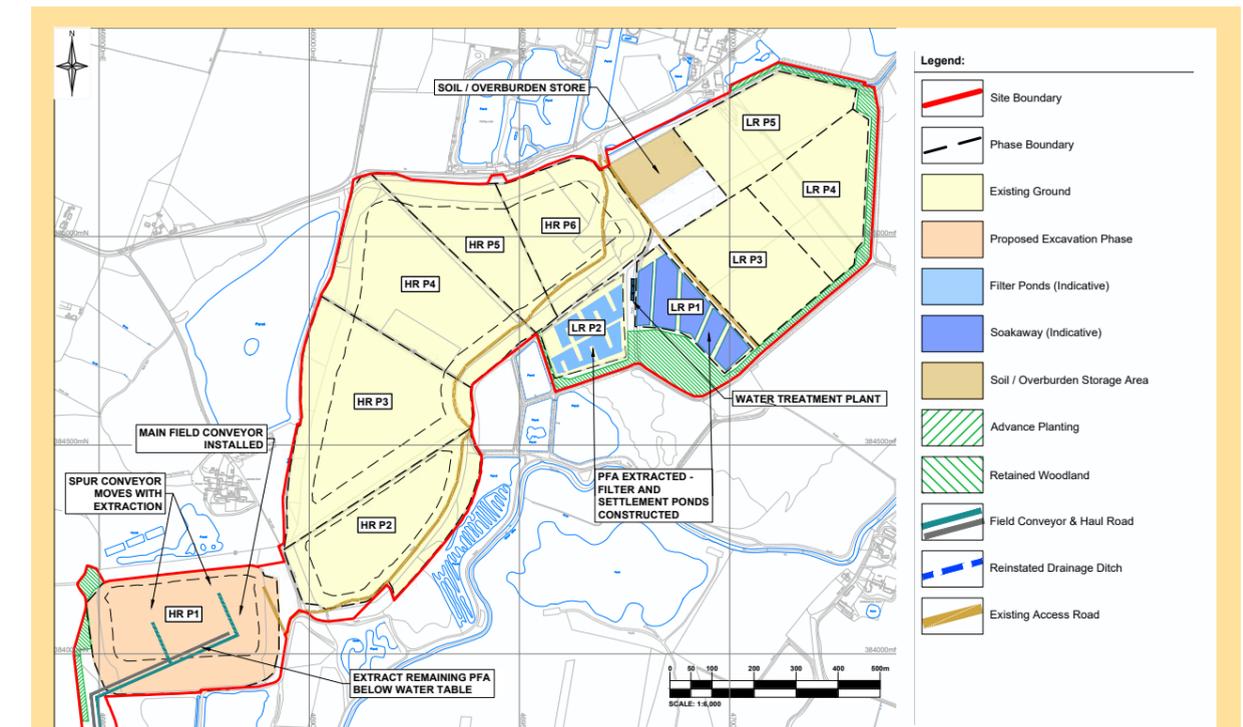


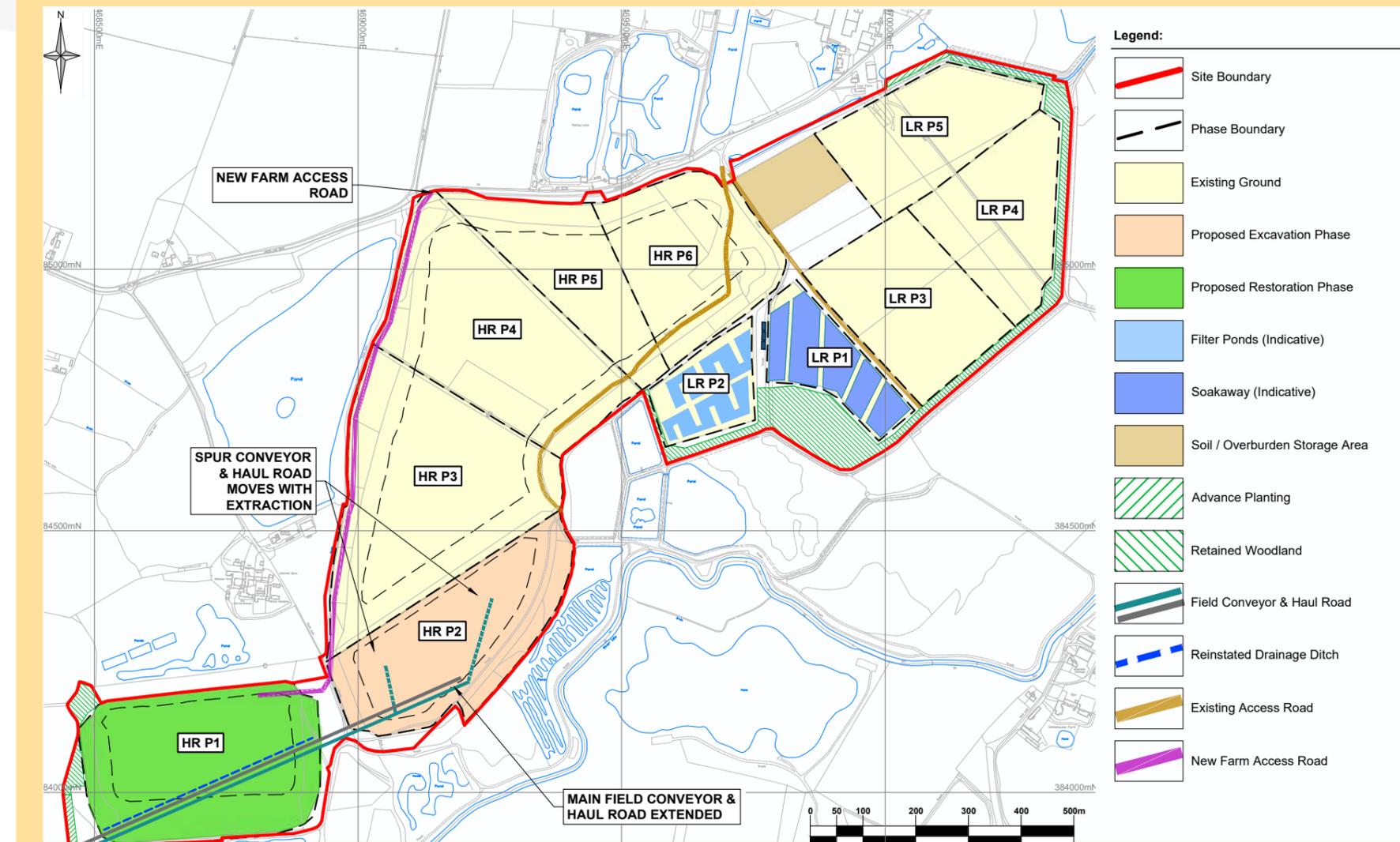
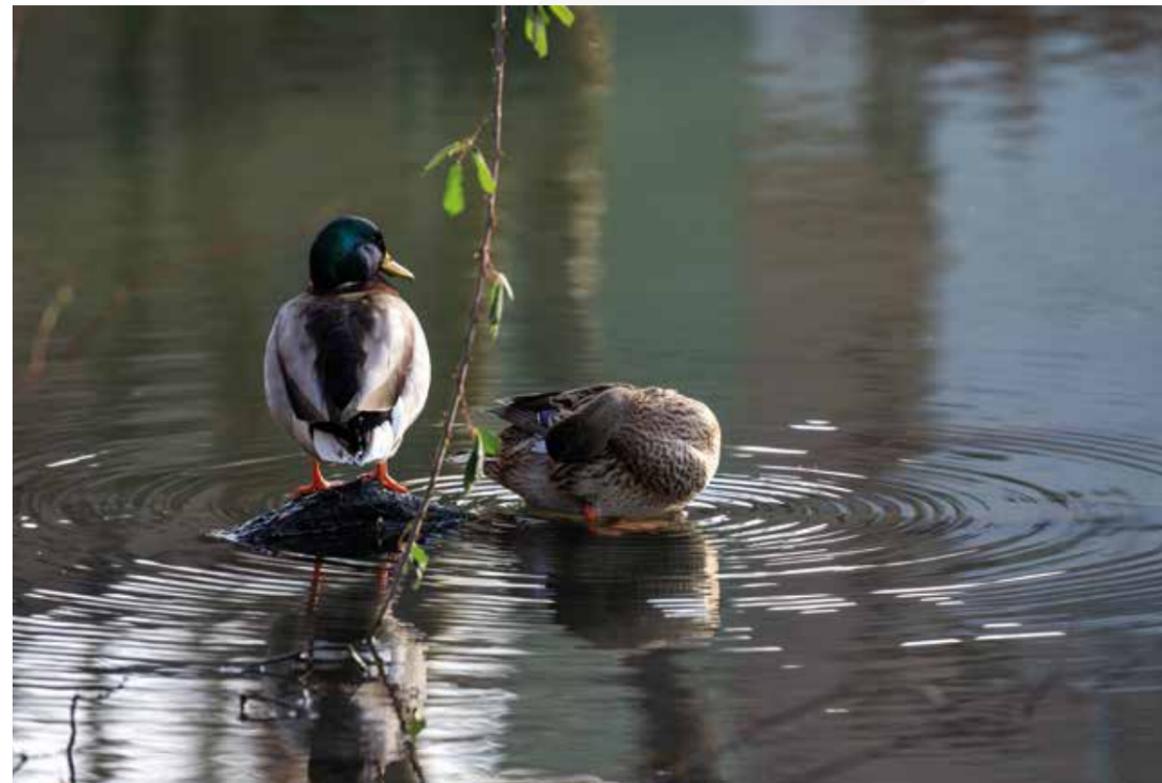
Figure 14: Stage 2 HR Phase 1 excavation, settlement / soakaway ponds

Stage 3

The conveyor and maintenance route would continue to be extended into HR P2 where soil stripping would also continue progressively.

As before, the extraction in the High-Rise area, such as HR P2, would be carried out in small Micro-Phases behind the lagoon embankments. The conveyor and maintenance road would be progressively extended as extraction takes place.

Restoration using the lagoon embankments would follow only after extraction is complete.



Stages 4 – 7

Stage 4 through to Stage 7 would again entail the progressive soil stripping and extraction in small Micro-Phases while extending the maintenance road and conveyor belt easterly. This would see the remaining High-Rise phases (HR P3, HR P4, HR P5, and HR P6) successively extracted before moving into the Low-Rise area in Stage 8.

Restoration using the lagoon embankments would follow in each phase only after extraction is complete.

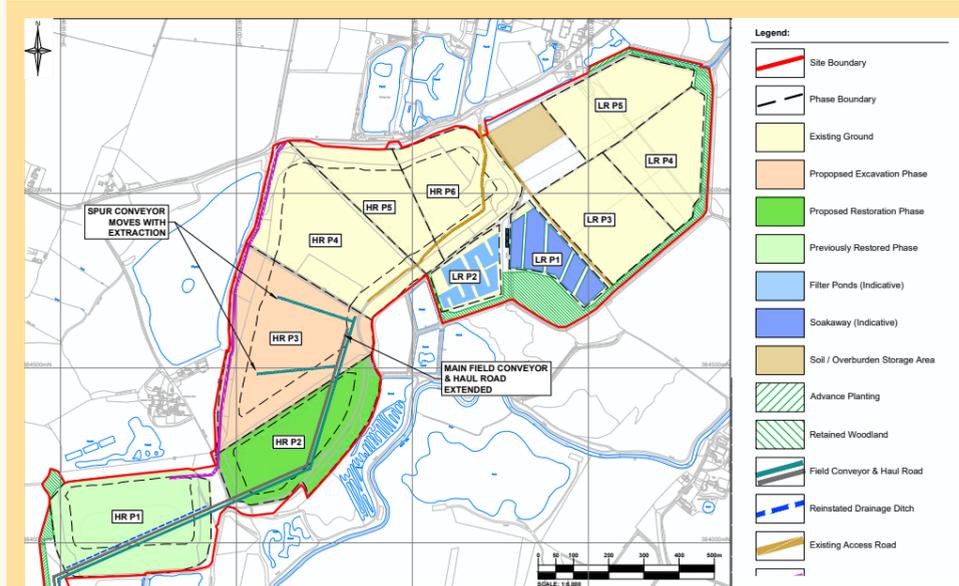


Figure 16: Stage 4 HR Phase 2 restoration & HR Phase 3 excavation

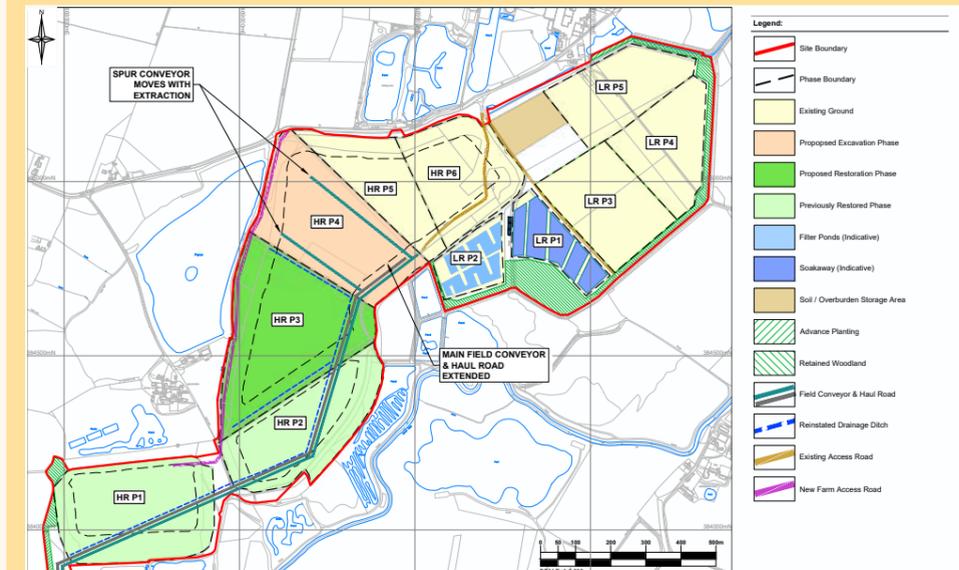


Figure 17: Stage 5 HR Phase 3 restoration & HR Phase 4 excavation

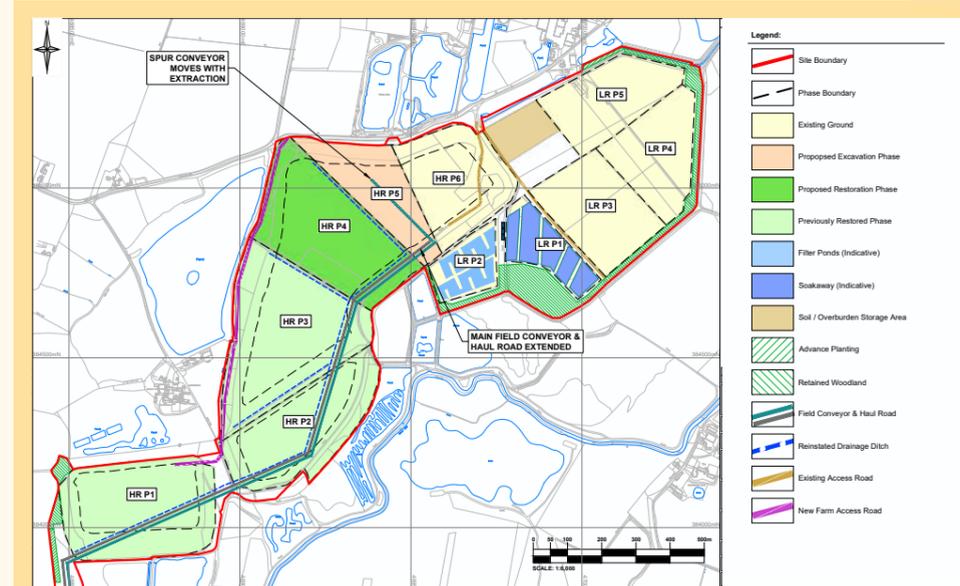


Figure 18: Stage 6 HR Phase 4 restoration & HR Phase 5 excavation

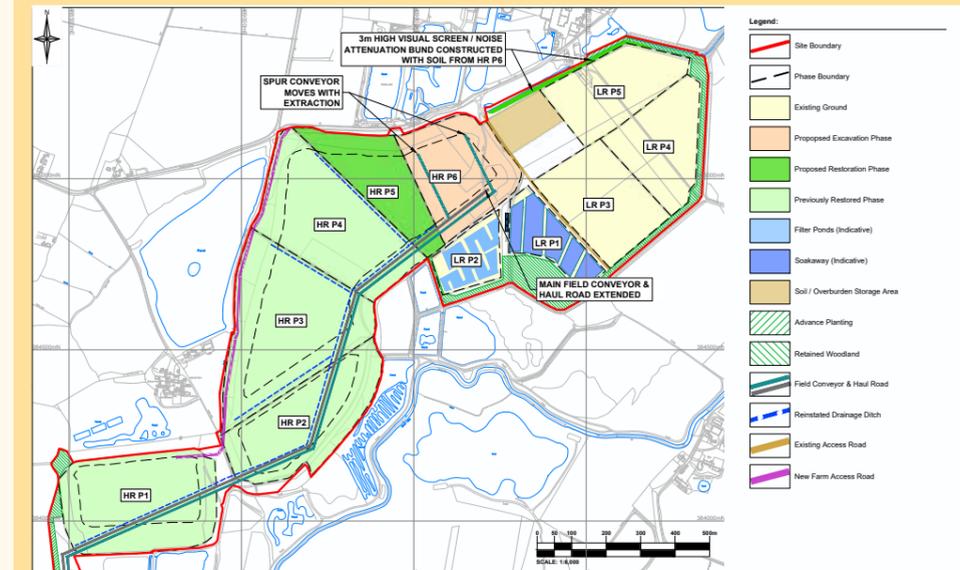


Figure 19: Stage 7 HR Phase 5 restoration & HR Phase 6 excavation



Figure 20: Photograph showing a high rise embankment

Stage 8

The conveyor and maintenance road would be extended from the High-Rise into the Low-Rise area. This would involve firstly digging a cut into LR P3, with extraction then commencing in Micro-Phases at a lower level.

Restoration using the lagoon embankments and stored soils would follow only after extraction is complete.

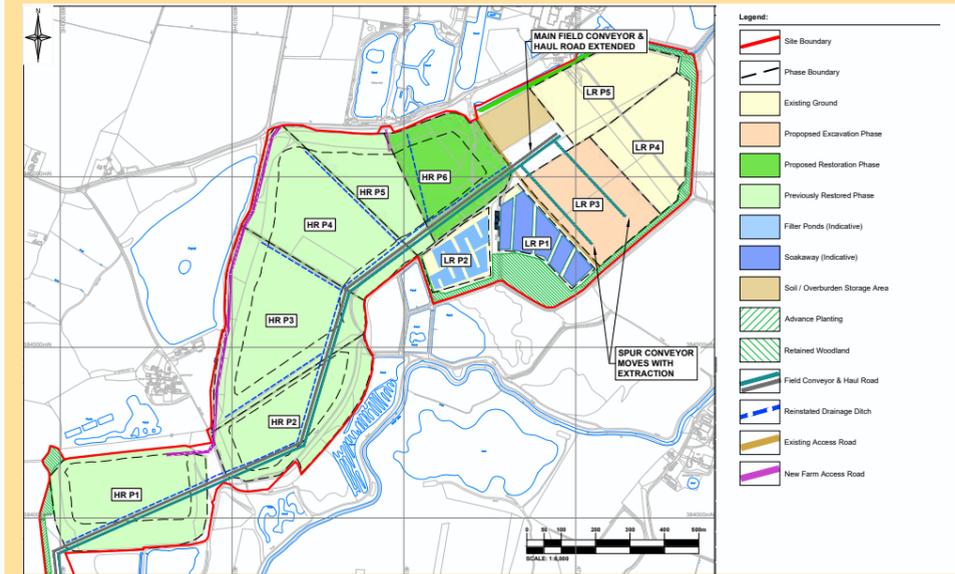


Figure 21: Stage 8 - HR Phase 6 restoration & LR Phase 3 excavation

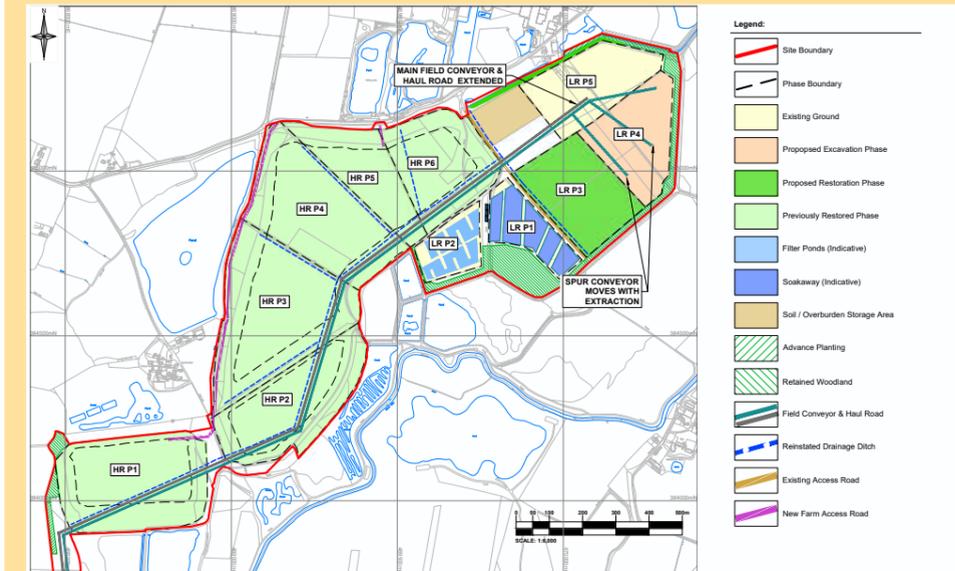


Figure 23: Stage 9 LR Phase 3 restoration & LR Phase 4 excavation

Stage 11

The conveyor and maintenance road would finally be extended into the remaining phases, LR P1 and LR P2, and extraction would again progress in Micro-Phases. Any remaining PFA would be removed, and the filter ponds and soakaway decommissioned.

Subsequently, LR P1 and LR P2 would then be restored, and the conveyor and maintenance road removed.

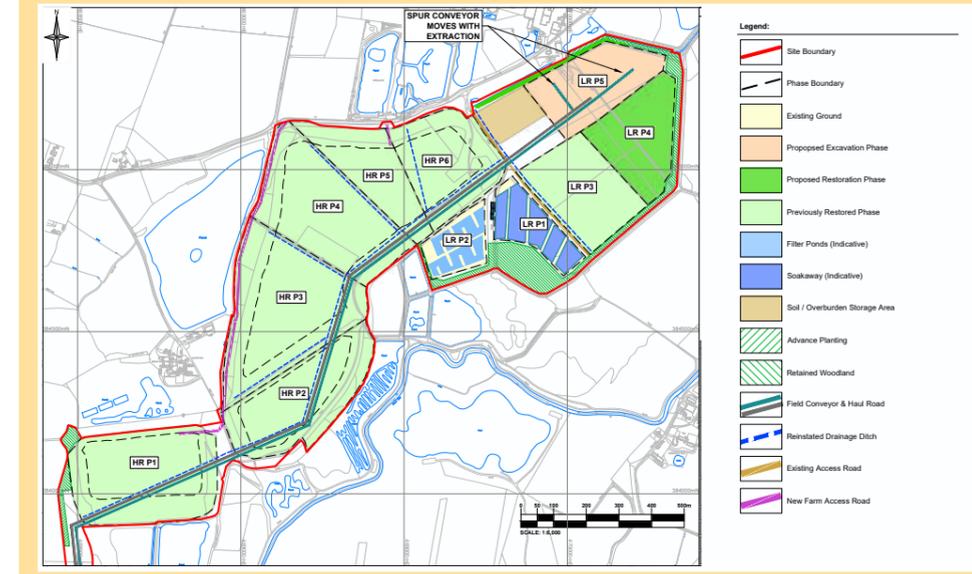


Figure 24: Stage 10 LR Phase 4 restoration & LR Phase 5 excavation

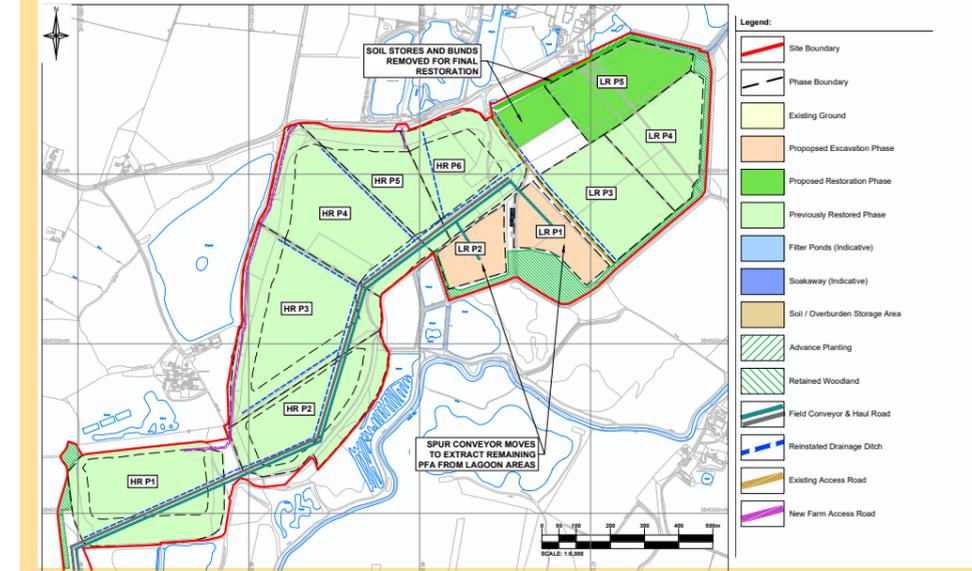


Figure 25: Stage 11 LR P1 & P2 excavation, LR P5 restoration

Stages 9 and 10

In Stages 9 and 10, LR P4 and LR P5 would, in the same way as LR P3, be extracted from in Micro-Phases. Works in these areas would involve the same process of progressive soil stripping and extraction, while extending the maintenance road and conveyor belt progressively through the phases.

Restoration using the lagoon embankments would follow in each phase only after extraction is complete.

5. Restoration Scheme

Improved restoration scheme

The original restoration scheme featured extensive areas of open water, long and narrow areas of wet grassland and reedbed, with larger areas of pasture, and scattered blocks of woodland and shelterbelts.

Following comments received from the local community and a workshop attended by key stakeholders, including NCC and the Nottinghamshire Wildlife Trust, changes have been made guided by the following overarching design principles.

- Greater emphasis on biodiversity with more wet grassland and reedbeds, and a reduction in pasture;
- The complete retention of the SSSI embankment located within the RCEP Site;
- Improvements to the quality of public access within the site, and a new permissive brideway parallel to the east of existing Footpath 1 allowing views across the wetlands created through the restoration scheme;
- No importation of dedicated fill material from off-site;
- Progressive restoration and landscape management;

- The minimisation of vehicle movements over the restored landscape through use of covered conveyors;
- The replacement of large open water bodies with more shallows and clusters of ponds to encourage amphibians and aquatic invertebrates, using on site restoration materials to raise levels, including the lagoon embankments thereby unlocking valuable soils;
- Fewer but larger woodland blocks to maximise and improve woodland habitats; and
- A commitment to manage the land (aftercare) for 30 years.

The improved restoration scheme includes reinstatement of some of the existing farming activities, such as grazing parts of the land to provide for habitat management, rather than using machines. Wet grassland, for example, depends on grazing management to ensure it is of the highest value.

Significantly Improved Biodiversity Net Gain

As well as providing more locally valued habitats, and increased public access, a considerable improvement in Biodiversity Net Gain has been achieved, with the draft Biodiversity Plan indicating an achievable gain of over 40%. This far exceeds the forthcoming legal requirement for 10% gain and presents a very significant benefit of the RCEP. The 30-year aftercare period would include formation of a steering group, made up of Hive, the landowner, project ecologists, restoration contractor, Nottinghamshire County Council and others.

The adjacent Idle Valley Nature Reserve, including the SSSI, was largely created as a result of mineral extraction. This serves as a real example to demonstrate what can be achieved.

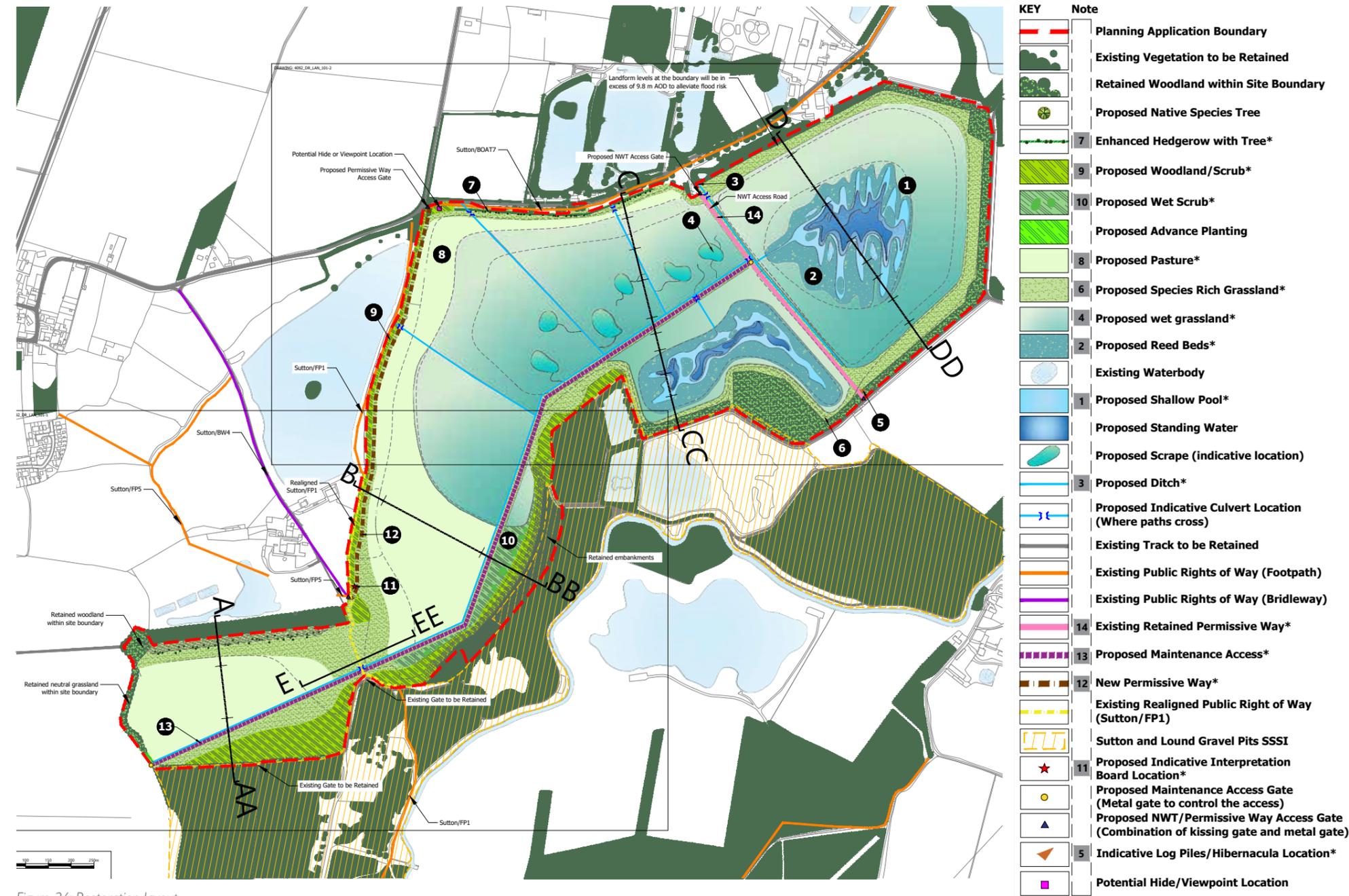


Figure 26: Restoration layout

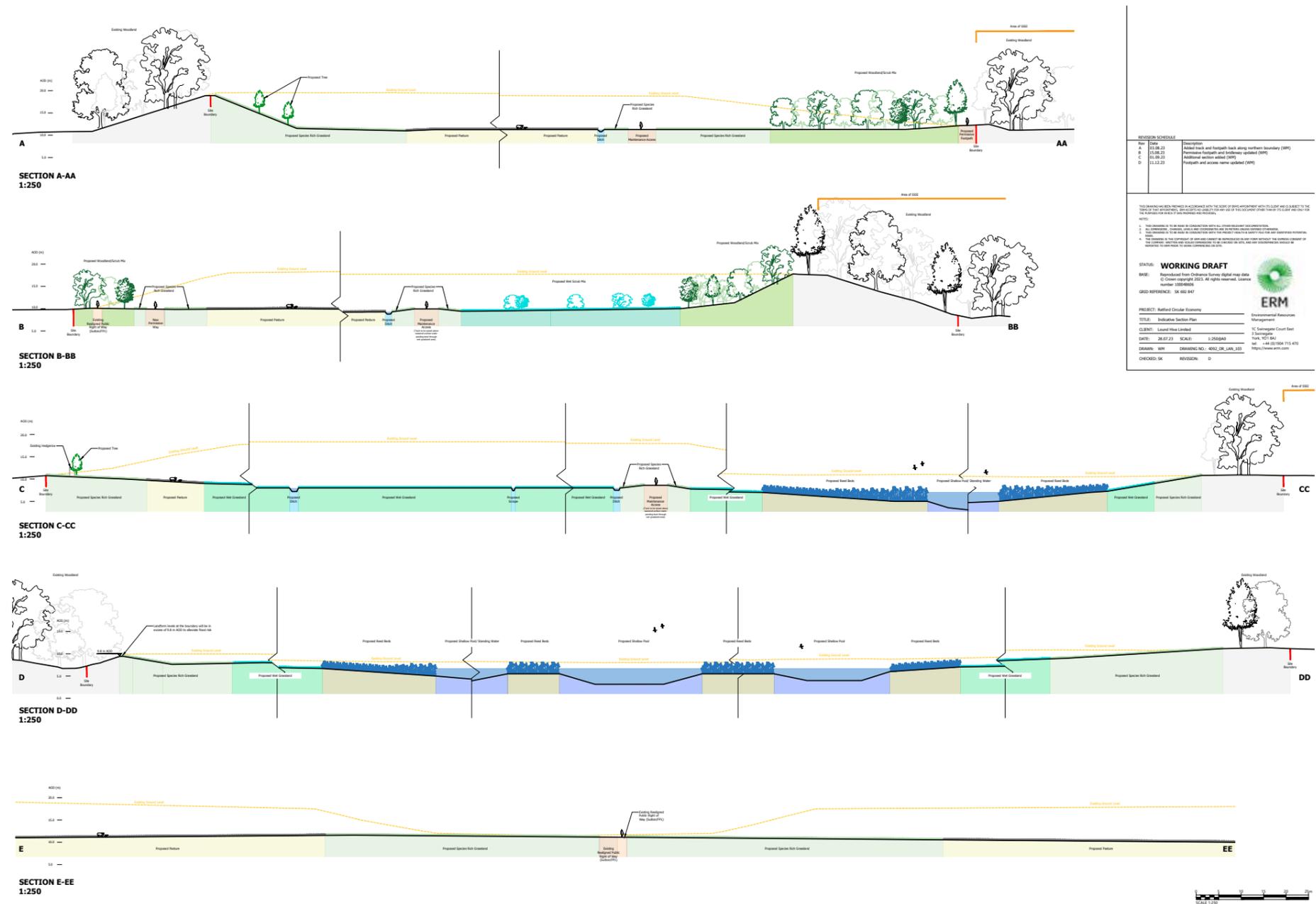


Figure 27: Proposed Restoration Cross Sections (Refer to the labels on Figure 26 for the location of each section within the site)



6. Economic Benefits

Job creation and community benefit

There would be significant job creation and other benefits for the local community:

- Supporters of the RCEP have been vocal about the jobs that would be created and the major positive impact this would have on local businesses and the economy.
- There would be around 20-30 jobs created on the RCEP Site, as well as an estimated 60 further jobs associated with the local supply chain including local hauliers, contractors and manufacturers.
- The large number of jobs has been confirmed by letters of support from local businesses, including a local haulage company representative who mentioned that 45 jobs could be created and a local conveyor belt manufacturer who mentioned that up to 12 new jobs could be created; both businesses are located within two miles of the RCEP Site.
- In response to individuals and businesses local to the site expressing an interest in servicing all aspects of the RCEP, we are proposing a 'jobs for local people' initiative that would seek to fill apprenticeships and full-time jobs through local workers.
- We are also exploring setting up a community benefit fund which could be shared between local parish councils to put towards environmental and educational purposes in response to feedback received from residents and parish councils.
- We are working with local universities, including The University of Nottingham, The University of Bradford, and The University of York, who have submitted letters of support.

Further economic benefits

The operation of the RCEP Site would enable the extraction of an important mineral product, which would have further economic benefits:

- Supporting the sustainable growth and diversity of mineral extraction in Nottinghamshire by maximising the use of its secondary mineral resource;
- Provide a significant long-term supply of PFA, a mineral of national importance the shortage of which is recognised in the National Planning Policy Framework. The RCEP alone could provide a substantial contribution to UK supply;
- Make a positive contribution towards the decarbonisation of the cement and concrete industry in the East Midlands and nationally to aid the transition to a low carbon economy;
- An investment of £30 million into the local area and beyond;
- Construction and operational workers/employees are likely to spend a proportion of their salaries in local shops, hospitality venues (including public houses) and on local accommodation;
- PFA is cheaper to produce than Portland Cement and is therefore good for UK businesses;
- PFA can improve concrete, making it stronger and extending its lifetime;
- Reduce the UK reliance on imports and open the potential for a whole new extractive industry, replacing industry that has otherwise been lost; and
- Significant business rates payment to the local authority.

Circular economy

There would be several benefits from reusing a waste product, including:

- Productive use of waste that would otherwise sit in landfill;
- One tonne of PFA replaces around 1.6 tonnes of limestone and shale used in Portland Cement production;
- Extending the life of existing quarries and reduce the need to manufacture Portland Cement;
- Conserving existing primary mineral reserves;
- Significant business rates payment to the local authority; and
- PFA can displace high volumes of carbon-intensive Portland Cement in concrete. Portland Cement requires combustion at high temperatures and a chemical reaction emitting carbon dioxide, which result in 0.8 to 1.25 tonnes of carbon emissions per tonne of Portland Cement produced.



7. Managing Environmental Effects

As a responsible operator, we would ensure operational best practice is followed at the RCEP Site to minimise any negative environmental, amenity and health impacts on the community.

We are submitting an Environmental Statement Addendum which reports on the updates and outcomes of the environmental assessments following the improvements set out in this document.



Noise

Hive has engaged with NCC and other consultees to consider potential noise impacts. The Amended Proposed Development has been designed to further reduce noise impacts by ensuring that operations take place at a lower level behind the existing lagoon embankments and new bunding/acoustic fencing.

Further, detailed noise modelling has also been carried out at the sensitive receptors closest to the RCEP Site, including numerous new locations within the SSSI. The updated assessment demonstrates that noise impacts can be fully managed without any significant adverse effects, with further improvement over the originally submitted scheme.



Dust

Dust management is placed at the centre of all operational activities and the plan takes full account of the improvement associated with the Amended Proposed Development.

An updated Dust Management and Monitoring Plan ('DMMP') has been produced that improves on those measures originally proposed and is more consistent with the higher level of information usually reserved by planning condition. The updated DMMP provides significantly more detail, including:

- A dust and weather monitoring regime;
- 24 hour management measures;
- Open air activities focussed in 1% of the extraction area only;
- Use of water bowsers and stationary sprays;
- Procedures to stop operations in certain weather conditions.

The DMMP has benefitted from the specialist input of Hatfield Site Services ('HSS'), who has over 20 years experience operating mineral processing operations, including PFA recovery operations. HSS has been engaged to provide further practical expertise on how best to mitigate dust generation and release from the RCEP. HSS is actively managing operational PFA and resource recovery sites across the UK.



Flooding

We have engaged in positive discussions with the Environment Agency to demonstrate in areas along the site perimeter that the existing lagoon embankment would be retained at a suitable height to adequately manage flood risk, taking climate change into account. There would therefore be no change to the status-quo in this area.

It has been demonstrated that the RCEP Site does not hydraulically connect to the River Idle or its floodplain and does not alter existing flow paths or introduce new flow paths for flood water to interact with residential properties.



Ecology

The assessment submitted with the original application reported the loss of 1.47 ha (0.46%) of the Sutton and Lound Gravel Pits SSSI. While this did not include valuable SSSI features, we have taken the decision to permanently retain the section of SSSI that overlaps with the RCEP Site. This will be done by retaining a large section of the southern lagoon embankment and, due to losing restoration material in the embankment, adding some wetter habitats into the restoration scheme in this area, such as wet woodland; further improving the restoration habitats.

The improved restoration scheme forming part of the Amended Proposed Development would deliver a Biodiversity Net Gain of over 40 %, which far exceeds policy requirements and would provide valuable habitats from an early stage in the project (after around four years).

There would also be an extensive 30-year aftercare period managed by a qualified steering group, to be secured by planning condition and/or legal agreement.



Contamination

The Dust Management and Mitigation Plan ('DMMP') sets out the revised and improved dust management and mitigation measures. During summer 2023 a full suite of testing for contaminants, including hydrocarbons, organics and asbestos was carried out.

The testing regime followed requirements set out by NCC's contamination advisor and the Environment Agency. No evidence of widespread contamination was identified, including for asbestos. The PFA at the RCEP Site complies with the usual constituents and composition expected for the material.

Notwithstanding the above, we have committed to dust and groundwater monitoring and testing regimes, and an extensive programme of ground investigation and testing prior to any PFA extraction in each phase. The proposed measures follow Environment Agency guidance and, in places, exceed Best Available Technique ('BAT') requirements.

A detailed Discovery Strategy has also been prepared to address an event where unexpected contamination, such as, for example, oil, asbestos or organics are encountered.

It follows that refinement and detailed consideration of the design has been undertaken to further reduce potential adverse effects to human health, controlled waters and the environment. These documents feed into a revised Outline Construction Environmental Management Plan ('OCEMP') and Drainage Management Plan provided in Appendix 5.3 and Appendix 9.3 respectively in Volume 3 of Environmental Statement Addendum.



Landscape

The revised approach to extraction and restoration and its embedded mitigation would reduce the landscape and visual effects of the Amended Proposed Development in a notable way. The changes include the reduction of the area of soil stripping and area of PFA exposed at any given time.

The retained sandstone embankments and proposed mitigation bunding would also provide some additional filtering to views from sensitive receptors. The Main Processing Site has been reconfigured to ensure that the silos are positioned in line with and behind the existing silo infrastructure at the Bellmoor Industrial Estate.



Access

Existing footpaths would remain open throughout operation of the RCEP, aside from an envisaged small number of days to provide a conveyor crossing between HR P1 and HR P2. In consideration of feedback from the local community about the value of recreation in the area and the need for more countryside access, the Amended Proposed Development now includes a network of new permissive pathways and bridleways.

The proposed network (see Figure 28) is a new addition which, post-restoration, would widen public access to the RCEP Site and deliver improvements to the quality of existing links to the Idle Valley Nature Reserve. As a result of creating access to new habitats, it is additionally proposed that interpretation boards explaining those habitats are established along the routes.

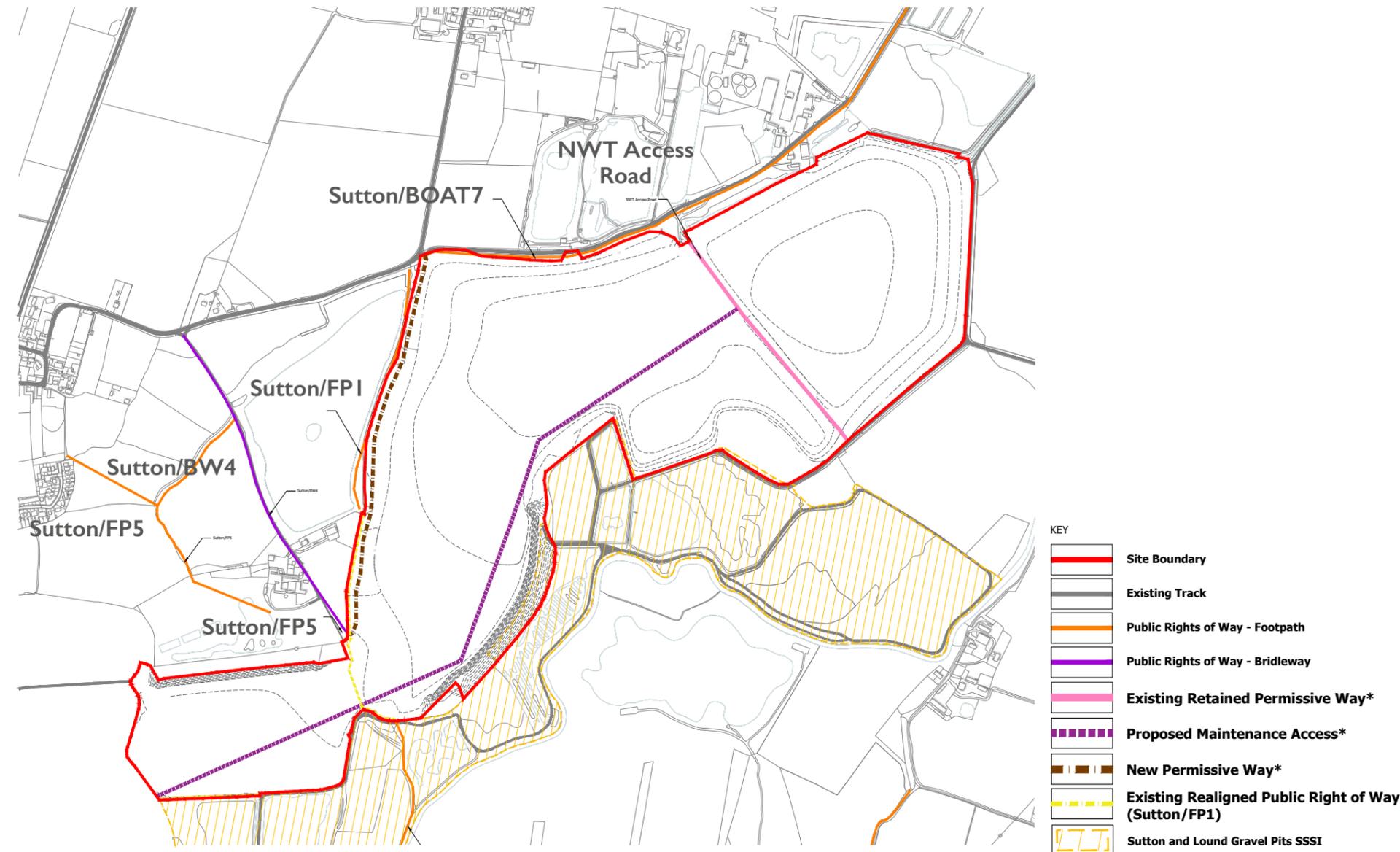


Figure 28: Public access routes



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