

5. CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2017: CONSTRUCTION OF A PERMANENT ACCESS TRACK TO FACILITATE ESSENTIAL SAFETY WORKS, ONGOING INSPECTION, MAINTENANCE AND EMERGENCY ACCESS TO SWELLANDS AND BLACK MOSS RESERVOIRS. (NP/O/0221/0110, BJT)

APPLICANT: Canal & River Trust

Summary

1. This application proposes the construction of a track in open moorland, with most of the route being within an area designated for its habitat and biodiversity interest as a Special Protection Area (SPA) and Special Area of Conservation (SAC).
2. SPAs are areas which have been identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds, SACs are also areas which have been given special protection. They provide increased protection to a variety of wild animals, plants and habitats. If a proposed plan or project is considered likely to have a significant effect on an SAC or SPA (known as a “European 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. For the reasons set out in this report, an Appropriate Assessment is considered necessary.

Site and Surroundings

3. The proposed track is required to gain access for maintenance works to Black Moss and Swellands Reservoirs, which are located in a remote position on high moorland two miles north-east of Diggle and one mile south-west of Marsden.
4. The first section of track, off the A62, to the west of the reservoirs, is outside the designated areas but the moorland to the east of this existing access track, including the area occupied by the reservoirs, all lie within the Dark Peak Landscape Character Area which is an area of high landscape and nature conservation value. It is designated as the Dark Peak Site of Special Scientific Interest (SSSI), and is within part of the South Pennine Moors Special Area for Conservation (SAC) and Peak District Moors Special Protection Area (SPA) . These designations are of National (SSSI) and International (SAC/SPA) nature conservation importance.
5. There are several public footpath routes across the moorland in the vicinity of the reservoirs, including the Pennine Way, which passes between the two reservoirs and then continues along the north-west side of Black Moss Reservoir. Although the applicants, the Canal and River Trust, own the land associated with the reservoirs, much of the surrounding land over which the temporary track passes is owned by the National Trust as part of their Marsden Estate. This land is also common land.

Proposal

6. Construction of a permanent access track to facilitate essential safety works, ongoing inspection, maintenance and emergency access to Swellands and Black Moss Reservoirs. The proposal is described in more detail in the following report on the planning application so it is not repeated here. The track will begin at an existing access from the A62 to the West of Brun Clough Reservoir, passing below the reservoir on an established stone track to Point A. From Point A, in informal existing track will be formalised with stone to the existing gate a point B. From Point B, most of the stone track

will follow a disused feeder channel between Black Moss Reservoir and Brun Clough Reservoir, formalising the existing occasional light vehicle access arrangement. The stone track will terminate at point E. Permanent access to Swellands Reservoir head wall will be achieved by a bog mat track from Point E. The width of the track is 4m which is the minimum width to allow all vehicles to utilise the track without detriment to the edges.

Background to the proposal

7. The Canal and River Trust owns and operates four reservoirs in the vicinity of Swellands Reservoir within the Dark Peak. The reservoirs are situated on exposed moorland over 200m above residential areas. There is currently no vehicular access to the reservoirs, and pedestrian access is via difficult terrain which can often become impassable due to poor weather and low visibility. Access is required to operate the reservoirs, for inspection, regular maintenance, large works in the interest of safety to the structures and for emergency access. The Trust believes that there are reasons in the interest of public safety to construct a single access route to service these reservoirs.
8. The application is accompanied by an Environmental Impact Assessment (EIA) and Environmental Statement (ES). The scope of the EIA was agreed with Authority through a formal 'Scoping Opinion' which was issued by the Authority on 30 October 2020. The Scoping Opinion confirmed the environmental topics that the Authority required to be addressed in the EIA. These are:
 - i. Landscape, Landscape Character and Visual Impact;
 - ii. Ecology and Biodiversity;
 - iii. Archaeological and Cultural Heritage; and
 - iv. Access and Recreation.

In addition, the Scoping Opinion confirmed that the EIA should set out the public interest need for the development and should describe the main alternatives that were considered.

RECOMMENDATION:

That this report be adopted as the Authority's assessment of likely significant effects on internationally important protected habitats and species under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) in relation to the construction of a permanent access track to facilitate essential safety works, ongoing inspection, maintenance, and emergency access to Swellands and Black Moss reservoirs.

Key Issues

9. Under Section 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) any development that has the potential to result in a Likely Significant Effect (LSE) on a European site and is not directly connected with the management of the site for nature conservation reasons, must be subject to a Habitat Regulations Assessment (HRA). Where it is confirmed that there will be a likely significant effect, the competent authority must carry out an Appropriate Assessment of those impacts.
10. All planning applications which are not directly connected with, or necessary for, the conservation management of a European site, require consideration of whether the proposed development is likely to have significant effects on that site. This consideration, typically referred to as the 'Habitats Regulations Assessment screening', should take into account the potential effects both of the development itself and in combination with other plans or projects. Where the potential for likely significant effects cannot be excluded, a competent authority, in this planning case the National Park Authority, must make an

appropriate assessment of the implications of the development 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 European 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.

11. Natural England has advised the Authority that, as a competent authority under the provisions of the Habitats Regulations, it should have regard for any potential impacts that a plan or project may have on a European site.
12. In this case, the designated site is the South Pennine Moors Special Area for Conservation (SAC) and Peak District Moors Special Protection Area (SPA).

Assessment

The Habitat Regulation Assessment Process involves several stages which can be summarised as follows:

- Stage 1 – Likely Significant Effect Test (Habitats Regulations Assessment screening)
 - Stage 2 – Appropriate Assessment
 - Stages 3 & 4 – Assessment of Alternative Solutions and Imperative Reasons of Overriding Public Interest Test.
13. Stage 1: This is essentially a risk assessment utilising existing data, records and specialist knowledge. This stage identifies the likely impacts of a project upon a European Site and considers whether the impacts are likely to be significant. The purpose of the test is to screen in or screen out whether a full appropriate assessment is required. Where likely significant effects cannot be excluded, assessing them in more detail through an appropriate assessment is required to reach a conclusion as to whether an adverse effect on the integrity of the site can be ruled out.
 14. Stage 2: This is the “appropriate assessment” and this involves consideration of the impacts on the integrity of the European Site with regard to the conservation site's structure and function and its conservation objectives. Where there are adverse effects, an assessment of mitigation options is carried out. If the mitigation cannot avoid any adverse effect or cannot mitigate it to the extent that it is no longer significant, then development consent can only be given if an assessment of alternative solutions is successfully carried out or the Imperative Reasons of Overriding Public Interest (IROPI) test is satisfied.
 15. Stages 3 and 4: If a project will have a significant adverse effect and this cannot be either avoided or mitigated, the project cannot go ahead unless it passes the IROPI test. In order to pass the test, it must be objectively concluded that no alternative solutions exist. The project must be referred to the Secretary of State on the grounds that there are Imperative Reasons of Overriding Public Interest as to why the project must proceed. Compensatory measures needed to maintain the overall coherence of the site or integrity of the national site network must be taken.
 16. **Stage 1: Likely Significant Effect Test**
 17. A “Report to inform a habitat regulations assessment” has been submitted with the application. This was prepared by Penny Anderson Associates on behalf of the applicants, the Canal and River Trust and is hereafter referred to as the PAA report. At the time of writing this Planning Committee report the views of Natural England have not been received, but we understand that the applicants have been liaising directly with

Natural England and a response is expected by the date of the Planning Committee meeting. The PAA report was commissioned by the applicants to inform a Habitat Regulation Assessment in relation to the proposed permanent access track application. The purpose of this report is to set out the information needed to enable to Peak District National Park Authority, as competent authority, to undertake a Habitat Regulations Assessment (HRA) with regard to the features of international importance for which the European sites (SAC and SPA) were designated. As noted above, the effects of the development on the Dark Peak SSSI and other, non-designated, ecological features are addressed in the Environmental Statement (ES) which accompanied the planning application for the proposed access track installation.

18. The report produced by Penny Anderson Associates Ltd contains the following information:
- Details of the European Sites and their qualifying features (Chapter 2);
 - Consideration of alternatives to the proposed track including 'do-nothing', decommissioning of the reservoir(s), alternative routes, construction methodology and programme (Chapter 3);
 - A description of the selected route including habitat descriptions for each section of the route (Chapter 4);
 - A summary of the bird survey results with particular reference to the SPA qualifying species (Chapter 5);
 - A description of the possible direct and indirect effects on the qualifying features of the European Sites (Chapter 6);
 - Proposed mitigation measures, compensation strategy and monitoring to address effects on the integrity of the European Sites (Chapter 7); and
 - Concluding statement on the assessment of Likely Significant Effects (LSE) on the integrity of European Sites and consideration of Imperative Reasons of Over-riding Public Interest (IROPI) (Chapter 8).
19. In relation to the site and its characteristics, and in consultation with the Authority and Natural England, the key features that are addressed in the PAA report are the vegetation/habitats and botany, the breeding bird assemblage and the hydrology of the peat resource (as fundamental to its quality). The report sets out this information as far as it is needed to understand the potential effects on the qualifying features of the European Sites. It is a lengthy and detailed document so only the key conclusions are included in this Planning Committee report; a full copy can be seen on the Authority's website under planning application NP/O/0221/0110.
20. Conclusion on Stage 1: Given the findings and conclusions set out in the PAA report, officers have considered that significant impacts of the project on the designated sites cannot be excluded, so it is necessary to assess them in more detail through an appropriate assessment in order to reach a conclusion as to whether an adverse effect on the integrity of the site can be ruled out.
21. **Stage 2 – Appropriate Assessment**
22. The PAA report sets out their analysis of the likely impact of the proposed permanent track on the interest of the designated sites and assesses the significance of these, their likely impact on the features of interest and possible mitigation.
23. Effects of Proposed Development on the South Pennine Moors SAC
24. Loss of Peat Resource and Hydrological Function: The only affected habitat feature for which the SAC was designated, and which therefore requires assessment under the Habitats Regulations, is blanket bog. The PAA report concludes that the construction of the permanent stone track and associated passing places would result in the loss of

1.148ha of degraded blanket bog. The extent of habitat lost includes habitats within the leat which, although not blanket bog per se, are hydrologically linked to the adjoining areas of blanket bog. Similarly, the extent of habitat loss includes a number of smaller channels and larger gullies which intersect the leat, as well as several wet hollows and larger pools of varying size and depth (total 0.165ha) located in the base of the leat that would be intercepted/lost as a result of the track construction.

25. Without embedded mitigation being built into track design and construction methods, the construction of the permanent track is likely to lead to disruption of peat hydrology and function along the route resulting from compaction of the ground surface and impeded and/or accelerated drainage. Conversely, the track may have the result of impeding drainage on the upstream (north) side of the track leading to the retention of water within the peat mass and possible formation of pools along the trackside and within the adjoining gullies. The extent of blanket bog loss includes the section of permanent bog mat track to the north of Black Moss and Swellands, and the spur leading into Swellands. In addition to the above there would be temporary disturbance blanket bog (which would subsequently be restored) along a short section of temporary bog mat track to Little Black Moss and at the spur from Point F into Swellands Reservoir which would also be restored on completion of construction. The total temporary loss would be 0.103ha.
26. Impacts on Water Chemistry: The proposed track construction also introduces the risk of changes to water quality resulting from accidental spillage/pollution of the water environment during construction, surface-run off during construction, and the introduction of a permanent stone track of a higher pH than the surrounding peat mass resulting in localised changes in vegetation. Best practice pollution control measures will be incorporated as an integral part of scheme implementation to avoid any impact on water quality through accidental pollution and surface run-off during construction.
27. Effects of Proposed Development on the South Pennine Moors SPA: Disturbance to Qualifying Bird Species During Construction
28. The key potential effect on SPA qualifying bird species, namely golden plover, merlin and short-eared owl during the construction phase is risk of disturbance to nest sites and associated foraging habitat which may result in breeding failure and nests being abandoned with subsequent loss of chicks. However this risk would only materialise if the construction work took place during the main nesting season of April to July inclusive; disturbance outside the main nesting season is not considered significant. As the Canal and River Trust advise they are legally obliged to carry out the work by January 2022, a significant negative impact could be avoided by conditioning the timing of construction work to avoid the April-July period.
29. Increased Disturbance to SPA Qualifying Bird Species During Operational Phase
30. At the operational phase of development the introduction of a permanent access track into the moorland environment could result in the following activities which could result in disturbance to or displacement of SPA qualifying bird species:
- i. Walkers/dog walkers using the track for recreation; and
 - ii. Vehicle use for operational purposes with at least three visits per week.
31. The improvement of the surfacing west of the reservoirs and the introduction of the bog mat section of track north of Black Moss and Swellands could encourage increased use by walkers, and effectively create a circular loop around Swellands Reservoir. The extent of any increase is difficult to predict, but it may increase the risk of disturbance to breeding birds. Conversely, the creation of a more well-defined route, confined within a low-lying leat for much of its length, may reduce the extent of disturbance. In addition, there would be regular disturbance by vehicle access for reservoir inspections three

times/week- this is relatively low level and is likely to cause less disturbance to birds than pedestrian access, but contributes to cumulative disturbance. Although the PAA report suggests that birds would readily habituate to any increased use, this is speculative, with no evidence presented. The Authority's Ecologist advises that potential effects on the SPA species are as follows:

- Golden Plover - it is considered reasonable to conclude that a significant impact on breeding Golden Plover is unlikely given evidence from the Pennine Way that surfacing benefitted Golden Plover by reducing the area of disturbance from 200m. to 50m. from the path, coupled with a lack of breeding records within 50m. of the proposed track.
- Merlin - it is considered reasonable to conclude that a significant impact on breeding Merlin is unlikely given a lack of breeding records and suitable nesting habitat within 500 metres of the proposed route.
- Short-eared Owl - although the SSSI condition assessment identifies suitable habitat in the area, it is considered reasonable to conclude that a lack of breeding records in the vicinity of the proposed track, coupled with the deterrent effect of existing access and the low-lying nature of much of the route within the leat, make it unlikely that there would be a significant impact on breeding Short-eared Owl.

Consequently it is reasonable to conclude that there is unlikely to be a significant impact on SPA bird species during the operational phase.

32. Stages 3 & 4 – Assessment of Alternative Solutions and Imperative Reasons of Overriding Public Interest Test

33. The report assesses several alternative options to the proposed permanent track (these are also referred to in the report on the planning application) These are set out in detail below given the importance of this issue (taken from the PAA report).
34. Do-nothing Option: Works to the main spillway, auxiliary spillway, dam embankment, wavewall and dam crest of Swellands Reservoir have been identified in the latest Inspecting Engineer's Report under Section 10 of the Reservoirs Act. To 'do-nothing' would result in a failure to meet the legal requirement for the Applicant to have carried out these measures in the interests of safety at by January 2022.
35. Reservoir Discontinuance: Discontinuing the reservoirs would impact on the public interest. Discontinuance would have a direct effect on water supply to the Colne Valley area as the water from the reservoirs is used to provide water supply under agreement between the Applicant and Yorkshire Water (the 'Scammonden Agreement').
36. Use of Low Ground Pressure All-Terrain Vehicles: Use of alternative vehicles such as a Haggland/Softrack which is used elsewhere for moorland maintenance has been considered. Regular use would form informal tracks across the moorland and would not satisfy the requirement for emergency access for pumps and plant. A large variety of vehicles are needed for ongoing inspection and maintenance tasks. Irregular tracks caused by such vehicles, including earth moving equipment, lifting equipment and welfare facilities would result in an impact that could not be re-instated causing greater damage than a well-designed track.
37. Temporary Access Track for Major Civil Engineering Works: A temporary access track was installed in 2006/07 to facilitate major engineering works to Swellands Reservoir. This is not considered acceptable practice when managing high consequence assets such as Black Moss and Swellands Reservoirs. To fail to inspect or fail to complete regular routine maintenance can lead to defects developing with an increased likelihood of dam failure. Current inspection and maintenance regimes involve reservoir surveillance inspections three times per week and regular maintenance activities which

can only be completed using wheelbarrows, strimmers and hand tools transported on foot some 2.5km. Maintenance measures identified during annual statutory inspections often require plant and equipment for which the current access arrangement is not appropriate, meaning safety measures cannot be completed until an access track, such as the temporary track from 2006/07, is installed. Sporadic maintenance is not in line with the key principle of reservoir safety which requires the Trust to maintain the dams' structural integrity and risk to be minimised to 'as low as reasonably practicable'.

38. Helicopter Access: The use of helicopters for the upcoming major civil engineering works, emergency access and ongoing operation and maintenance was considered. Due to helicopters being unable to fly in inclement weather, they would be unavailable when the current pedestrian route is impassable. The landing area required would need to be large and located within the SSSI/SAC/SPA. Helicopter access would not, therefore, be suitable for ongoing inspections.
39. Improvements to Reservoir Operation: Additional draw-down capacity has been included in the design of the pending reservoir safety works. However, this additional capability does not negate or compensate for the need to access for inspection, routine maintenance, repair or emergency access. Additional draw-down capacity reduces the time to empty the reservoir in an emergency but does not reduce the likelihood of a defect causing an emergency or the likelihood of identifying a defect that may result in an emergency. These are reduced by regular inspection and regular maintenance, both requiring good road access.
40. Alternative Routes: The location of the alternative routes is shown in the submitted report. These comprise six alternative routes (Routes 1-6) which were considered in detail for the previous temporary track that was constructed and restored in 2006/07. These routes were revisited to consider their suitability for the current proposals. In addition, two further iterations were considered for the current proposal (Routes 7 and 8) to bring a spur down to Little Black Moss and to take the main track around to the north of Black Moss and Swellands. After considering all eight route options, a hybrid solution has been devised which is considered to have the least environmental and ecological impact.
41. Alternative Construction Programme: The key aspect of programme in respect of the HRA is the proposed commencement date, which was anticipated to be from May 2021 onwards. This would coincide with the bird breeding season, and would, therefore, result in an unavoidable impact on the qualifying feature of the South Pennine Moors SPA, namely breeding merlin, golden plover and short-eared owl. This start date was influenced by the legal requirement to have completed the statutory measures identified in the Reservoirs Act Section 10 report by January 2022. However, as noted above, the report assumes that the track construction would commence in May 2021 and would take approximately 16 weeks, but the application has not yet been determined so this timetable is no longer applicable.
42. The Trust has discussed with the Environment Agency (EA) whether an exception can be granted due to the delays experienced as a result of the Covid pandemic but it has been confirmed that the circumstances do not warrant an extension under the EA's prescribed conditions for the completion of the essential works, most notably repairs to the spillway at Swellands, by January 2022. If this deadline remains the Trust would now have to do the work in the second half of 2021, assuming planning permission is granted. This would avoid the issue regarding nesting birds.
43. **Mitigation measures and compensation strategy:**
44. Mitigation Measures: In order to avoid any adverse effects on the integrity of the South

Pennine Moors SAC/SPA the PAA report acknowledges that it will be necessary to incorporate mitigation measures. The adoption of mitigation has been undertaken in accordance with the mitigation hierarchy to avoid impacts in the first instance and then, where impacts are unavoidable, to minimise or restore the potential impacts.

45. In the case of the permanent track construction across blanket bog it will not be possible to avoid, minimise or restore impacts on the blanket bog habitat, so there will be an unavoidable effect on the integrity of the SAC which must be off-set through compensation measures. In addition, where there are unavoidable effects on the integrity of a European site, it is a requirement of the Habitat Regulations that the HRA must demonstrate that there are IROPI regarding any impact to the SAC. The need for the development is covered in the report on the planning application and the consideration of alternatives is set out above.
46. Habitat Mitigation During Construction: The proposed track has been designed to minimise effects on the habitats of the South Pennine Moors SAC. A number of alternative routes have been considered and the final selected route which largely follows the same alignment along the upper leat as the earlier scheme was selected as the least environmentally damaging. The Supporting documents make the case that a temporary track solution will not address the current need for permanent access for vital reservoir inspection and maintenance. The track will be the minimum width possible to accommodate the type of vehicles required for construction and operational purposes, with a running width of 4m plus additional width to allow for the edges to be battered to existing ground level. Passing passes and compounds have been located within the footprint of the earlier temporary track to avoid impacting on new areas. The stone to be used for track construction has been selected for as low a pH as possible whilst maintaining structural stability. The track has been designed to be free-draining as far as possible to avoid the need for additional drainage features to be installed.
47. Construction and restoration will be closely supervised by an experienced Ecological Clerk of Works with expertise in the peat environment. Best practice measures will be implemented to safeguard the water environment from accidental spillage and pollution.
48. Operational Stage: the PAA report concludes that no impacts are anticipated in relation to habitats at the operational stage, over and above those associated with construction of the track and no additional habitat mitigation measures are proposed.
49. In respect of the South Pennine Moors Phase 1 SPA it is anticipated that any adverse effects on the integrity of the SPA can be overcome with the proposed mitigation measures.
50. Construction Phase: Whilst the PAA report says that the construction of the track is highly unlikely to impact directly or indirectly on nest site of SPA qualifying species, and propose some mitigation measures, officers consider that it should not be necessary to carry out the work during the bird breeding season if the works are required to be completed by January 2022. Consequently, the timing of the construction works could be conditioned and further mitigation work will not be required.
51. Operational Stage: Unauthorised vehicle and pedestrian access will be prevented with a padlocked gate at Point B (where the track enters the moorland area) and a barrier close to Point E with the intention of discouraging public access for pedestrians and preventing access for vehicles. This will reduce the likelihood of disturbance and no significant impact on SPA species is considered likely.
52. Compensation Strategy: Due to the unavoidable permanent loss of 1.148ha of blanket bog within the South Pennine Moors SAC, plus any indirect effects on peat hydrology

which are difficult to accurately quantify but likely to extend for at least several metres along either side of the track, there will be an adverse effect on the integrity of the SAC. The loss of blanket bog and indirect effects on peat hydrology cannot be addressed through mitigation measures. A compensation strategy is, therefore, required to off-set the loss of blanket bog habitat and associated hydrological function.

53. The PAA report concludes that no adverse effects are anticipated in respect of the qualifying bird species of the South Pennine Moors Phase 1 SPA and no compensatory measures are proposed in respect of bird species.
54. A habitat compensation strategy has been developed in line with the following key principles:
- compensation must demonstrate 'additionality', i.e. it must be over and above any habitat measures that would be implemented in the absence of the Development. Thus the compensation area must be located outside the South Pennine Moors SAC on the basis that habitats within the SAC should already be managed to restore them to favourable condition;
 - the size of the habitat compensation area must be sufficient to demonstrate a net biodiversity gain (compared with the baseline) when applied to the Defra Metric 2.0 Biodiversity Net Gain calculator tool;
 - the location of the compensation area must be as close as possible to the site of the Development and capable of being enhanced and managed as a coherent management unit;
 - the existing habitats in the compensation area must be in unfavourable or unfavourable/recovering condition that will benefit from additional interventions to restore the habitat to favourable condition;
 - the interventions must be technically feasible and proven to deliver the necessary habitat enhancement;
 - the compensation measures must be capable of being delivered within a reasonable timeframe of the Development taking place, i.e. within approximately 12 months of completion;
 - there must be certainty of delivery, i.e. funding and an experienced delivery body must be in place to ensure that the habitat interventions are capable of being implemented; and
 - the works will be monitored to ensure that any interventions deliver the anticipated habitat enhancement.
55. The proposal for habitat compensation is subject to on-going discussions with the National Trust and would be subject to a S106 agreement for delivery. The National Trust owns an area of land, Holme Moor, which is located to the north-east of Black Moss and Swellands Reservoir and outside of the South Pennine Moors SAC, and initial discussions have been held with the Trust to explore the potential for use of this land for habitat compensation. Given the location of Holme Moor, outside the SSSI, it is not a priority for the National Trust to undertake these habitat restoration works. Therefore, a financial contribution from the application via a S106 agreement would enable these habitat enhancements to proceed, which would otherwise be unlikely to happen without the development going ahead. The close proximity of Holme Moor to the SSSI would add to the value of the habitat enhancement. It is anticipated that works may take place over two seasons, i.e. autumn/winter 2021 and autumn/winter 2022.
56. Habitat Monitoring: Habitat monitoring would be carried out in Years 1 and 3 following completion of the construction works. Monitoring in Year 1 would allow for any issues to be identified and rectified, with monitoring in Year 3 to check progress. Monitoring of the compensation area would be dependent on the final agreed compensation proposals. A Habitat Monitoring Report would be provided to Authority and Natural England after each year of monitoring.

57. **Breeding Bird Monitoring:** A programme of on-going monitoring will be implemented during construction. This will involve regular inspections of the location of breeding birds by a suitably experienced ornithologist and observations on the efficacy of the bird disturbance measures. Post-construction monitoring will be undertaken for a period of two years following completion. This would comprise a full breeding bird survey in spring 2022 and 2023 with the aim of observing the response of the breeding bird assemblage. At least one of the breeding bird monitoring survey visits will be timed to include periods when operational vehicles are present to enable the response of bird species to be closely observed. A Bird Monitoring Report will be submitted to the PDNPA and Natural England after each of the two-year monitoring events including detailed survey methods and results and recommendations for any future mitigation requirements if required.

Conclusion

58. The HRA considers the effects of the proposed development on the South Pennine Moors SAC and South Pennine Moors Phase 1 SPA and concludes that due to the location of the development partially within the SAC and SPA there will be a Likely Significant Effect (LSE) on the qualifying features and an Appropriate Assessment is required.
59. Desk-based assessments and field surveys have been completed to provide a baseline for the proposed development.
60. The track route has been selected as the least environmentally damaging that fulfils the need to undertake the legally required Safety Measures identified in the most recent Reservoirs Act, Section 10 Inspector's report, by the required completion date of January 2022 as well as facilitating on-going reservoir maintenance.
61. The proposed development would result in the following effects on the SAC qualifying features:
- Permanent loss of 1.148ha of blanket bog;
 - Temporary loss and subsequent restoration of 0.103ha of blanket bog;
 - Indirect effects on hydrological function of the peat resource; and
 - Risk of impact on water quality.
62. Direct effects on SPA qualifying bird species are considered unlikely as there is no evidence of nest sites along the route. However, there may be some habituation or temporary avoidance of functional habitat along the route due to construction activities and use of bird disturbance measures targeted primarily at non-SPA qualifying species. Embedded mitigation measures are incorporated into scheme design to avoid any adverse effect on site integrity as far as possible.
63. The permanent sections of track would result in the unavoidable loss of blanket bog habitat within the SAC which cannot be mitigated. This will result in an adverse effect on site integrity. To meet the requirements of the Habitat Regulations it has been necessary to demonstrate that there are Imperative Reasons of Over-riding Public Interest (IROPI) for the development to proceed and that compensatory measures will be provided. Habitat compensation will be delivered under a legally binding S106 agreement. A programme of habitat and bird monitoring is proposed, with reports provided to the Authority and Natural England to provide evidence of the effectiveness of the proposed mitigation measures. The reports will include recommendations for any remedial measures required.
64. The PAA report concludes that the proposed development would meet the requirements of the Habitat Regulations. Having considered the report officers agree that the report

makes a thorough assessment of the likely environmental effects on the designated area and that it provides a justification for the proposed scheme, setting out suitable mitigation and compensation.

65. **Human Rights**

Any human rights issues have been considered and addressed in the preparation of this report.

66. **List of Background Papers** (not previously published)

Nil

67. Report author: Brian Taylor