

Condition 28 – Phase 2 Wetland – [REDACTED]

Wetland Retaining Structure – Landscape Construction Softworks

Planning application references:

HBC Phase 2 Wetland: APP/24/00186

Reserved Matters: APP/20/00990

EHDC Phase 2 Wetland & reserved matters: EHDC 51680/008

The planning officer has confirmed that the application made is for the full discharge of Condition 28 relating to soft landscaping for the Phase 2 wetland area.

I object to the discharge of Condition 28 for the phase 2 wetland area as insufficient detail is currently provided to demonstrate that biodiversity opportunities have been maximised, with some of the features proposed having an adverse impact on ancient woodland, biodiversity potential and longevity.

Key objections include;

1. Two large soil mounds more than 90m long have been placed on an area **designated as ancient woodland** to the north of Compartment 2. This area was to be restored to native ancient woodland (see Appendix A). Having already lost 13 hectares of ancient woodland at the site the placement of the mounds in this area of ancient woodland is not acceptable.
2. The two large soil mounds north of Compartment 2 have been **located on top of ancient woodland soils, trees and saplings recently translocated** from The Avenue woodland before it was felled. The adverse impact of the proposed mounds on these existing woodland mitigation areas is not acceptable.
3. Roughly 6730m² of optimal transitional shore line habitat, equivalent in size to about 26 tennis courts, is to be lost below the 5 proposed large soil mounds, including 2830m² of prime wet grassland transitional habitat. Vast areas of wet grassland have already been lost at the site (including priority habitats) and it is **not acceptable to lose any more wet grassland**, especially in this prime wetland edge location.
4. The original outline wetland design provided approximately 845m of optimal shoreline habitat within the red line boundary along the northern shore of Compartments 2 to 4. The introduction of the mounds along the shoreline changes an estimated 430m to sub-optimal habitat for wetland birds, due to loss of lines of sight. This represents a roughly **50% reduction in optimal habitat wetland edge habitat along the northern shore of the wetland which is not acceptable**. The mounds also remove lines of sight from the grassland to the north reducing its habitat value for wetland birds as a feeding area.
5. The loss of proposed habitat complexity in Compartment 1 will reduce the biodiversity potential of the reed bed being created, and is in direct contradiction of the outline design Technical Note.
6. The detail for benching along the retaining structure and compartments bunds has not been shown on the landscape drawings, making it impossible for the LPA to determine if biodiversity opportunities have been maximised in line with the outline design.
7. Design principles/concepts set out in the Technical Note (Wetland Concept & Outline Design 2020) which was approved by the LPA as an appendix to the Landscape Environmental Management Plan (LEMP) to optimise biodiversity and extend the life of key features has not been adequately followed. For example, orientating the islands in the retained compartments and ephemeral shallow features in the north-east to the prevailing wind direction to reduce erosion and improve longevity.
8. Inadequate water depth being created at key points on the periphery of the retained wetland to deter predators from accessing the islands.

9. No information has been provided on the timescales for delivery of different elements of the wetland landscape design. Nor information on the timing for further tree removal, replacement planting and fencing.
10. Hide positions and screening shown are not adequate to reduce disturbance of the wetland.

Further concerns and more detailed comments are set out below, including specific comments on each of the drawings submitted in relation to discharge of Condition 28.

A. Comments that apply across a number of the landscape drawings

A1. Benching not shown on the retaining structure; Both the northern and southern slope of the wetland retaining structure are shown as having a constant gentle slope on the Landscape Construction Softworks Sheets 2, 3, 4 & 5. No benching or shelving is shown along the length of the retaining structure to optimise and diversify the riparian habitats to be created. Providing terracing (benching / shelving) does form a fundamental part of the wetland design for the northern slope within the wetland. A 'typical section' with double benching was previously shown on Drg. HTR-GHD-WL-ZZ-DR-L0050 (P07) submitted with the Phase 2 application. The provision of benching is critical to enhancing the biodiversity value of the retaining structure and wetland overall. No more detailed section has been provided in relation to the Condition 28 application. **The diversity in slopes/ benches to be created along the northern slope of the retaining structure should be added to the landscape layout drawings (Sheets 2 to 5) before consent is granted for the detailed design, so that the LPA can ensure the extent of benching is maximised. Or a planning condition added to the Phase 2 consent requiring submission of this additional detail for approval before filling commences.**

A2. Benching not shown on the compartment bunds; Both the eastern and western slopes of all of the compartment bunds are shown as having a constant gentle slope on Landscape Construction Softworks Sheets 3, 4 & 5. No benching or shelving is shown on the layout plans. Providing terracing (benching / shelving) does form a fundamental part of the wetland design for compartment bunds and a 'typical section' with double benching was previously shown on Drg. HTR-GHD-WL-ZZ-DR-L0050 (P07) submitted with the Phase 2 application. No more detailed section has been provided in relation to the Condition 28 application. **The diversity in slopes/ benches to be created along the edges of the compartment bunds should be added to the landscape layout drawings (Sheets 3 to 5) before consent is granted for the detailed design, so that the LPA can ensure the extent of benching is maximised. Or a planning condition added to the Phase 2 consent requiring submission of this additional detail for approval before filling commences.**

A3. Bioengineering detail for southern slope of retaining structure not provided; The Technical Note - Wetland Concept & Outline Design page 21 set out the concept for bioengineering the southern slope of the retaining structure to enhance its biodiversity value. The Condition 28 drawings only show the slope over seeded with a wet and waters' edge mix. No information or section is provided to show how the southern slope will be treated to ensure that vegetation does establish, not only to optimise the biodiversity potential but also to improve / soften its appearance.

Note: No detail has been provided on the Geotech matting being used to armour the slopes of the retaining structure, in terms of colour, life expectancy, and how practical it will be to plant in to?

A4. Seeding on the retaining structure; The flat area including the road on the crest of the wetland retaining structure is shown seeded with a 'wet and water edge mix'. The top of the retaining structure will be well drained and very dry, a wet and water edge seeding mix would not be appropriate.

A5. Surfacing of the retaining structure; At the time of the outline design Portsmouth Water and the Wetland Specialist Subgroup were concerned that if you have significant areas of grass on top of the retaining structure you are highly likely to get large numbers of non-native geese roosting and feeding on it, which is not desirable from a water quality perspective, as these larger birds generate a lot of nutrients in their droppings. The experts advised that the best way to minimise this was to put a natural stone substrate down that did not encourage the growth of lush grass to reduce the attractiveness of the retaining structure to geese.

The wetland specialists **recommended that the stone substrate be left to very slowly naturally colonise, and not to place soil or seed on top of the retaining structures.** They felt this would be a much better option adding diversity to the vegetation established on the retaining structures, and reducing the chance of developing lush grassland that would be very attractive to flocks of grazing non-native geese. This would also help to reduce the risk from these birds trampling the eggs of other nesting birds, a known problem at other wetland sites.

I request that the wetland design team reconsider placing soil and seed on the flat top (and road surface) of the retaining structure and compartment bunds, and instead place a natural stone substrate in line with the advice of the wetland specialists, which should be allowed to naturally colonise and be mown regularly.

A6. Mounds impacting ancient woodland; The area north of Compartment 2 is designated ancient woodland and was until recently a Corsican pine plantation (Appendix A). Following the removal of the pine ancient woodland soils were translocated from The Avenue woodland area to kick start the regeneration of native ancient woodland habitats in this mitigation area. The 2 mounds cover an area of approximately 3900m² and provide no benefit to restoration of this ancient woodland area.

Given the loss of 13 hectares of ancient woodland at the reservoir site already, **it is completely inappropriate to place soil mounds onto the area of designated ancient woodland north of Compartment 2. The mounds must be removed from the drawing (Sheet 4) in the designated ancient woodland area.**

A7. Mounds on top of translocated ancient woodland soil and trees; In addition to the translocation of ancient woodland soils to the area which is now deer fenced north of Compartment 2;

- Trees with a girth of up to 9cm were translocated from The Avenue ancient woodland area to this area.
- Saplings recued by volunteers from The Avenue and small oak trees grown from the acorns of woodland areas now felled were also planted in this area.

The developer has suggested that the translocated trees can be moved again to make way for the mounds. This is not appropriate. A high percentage of the trees that were moved from The Avenue died. It is highly unlikely that the trees would survive another move.

The developer has noted that there was only a commitment by P. Water to translocate 80 trees and that 400 trees were translocated to various areas of the site, implying that it is acceptable to lose more of the trees moved from The Avenue. However, the larger number is derived by including small oak saplings, which were not part of the original 80 trees marked up by volunteers to save. I would be surprised if 80 of the more substantive trees have survived the translocation, so it is important that we protect everyone that has.

The mounds should not be located on areas where ancient woodland soils, trees and saplings have been translocated. This was mitigation for loss of ancient woodland areas which were within the footprint of the reservoir, the mitigation areas must continue to be

protected from construction activities, as was originally intended at the time planning consent for the reservoir was granted, and as set out in the LPA approved Outline Biodiversity Mitigation & Compensation Strategy.

A8. Large mounds shown will have an adverse impact on biodiversity

The positioning of the large mounds shown along the northern shore of Compartment 2, 3 & 4 **will reduce the biodiversity value of the wetland shore;**

- Breaking up the natural transition from the water's edge to woodland, which will reduce the area of transitional habitats and its biodiversity value for a broad range of species including plants, insects, amphibians and bats.
- Make the riparian habitat along the shoreline sub-optimal for birds, with an estimated 50% reduction in optimal habitat, due to the loss of lines of sight around the shoreline bird species will not feel safe feeding there.
- Make the grassland habitat north of the mounds suboptimal for birds to feed including teal, wigeon, snipe and godwits, as they would not be able to have a direct line of sight back to the water's edge.
- Interfering with the natural drainage from north to the south down the natural gradient.
- Reduce the area over which the wave fetch can extend up the shoreline.
- Creates raised dry grassland alongside the wetland, which has less biodiversity value in this wetland context than a wet grassland interface. If the mounds are to add habitat complexity by introducing dry grassland, why do they need to be more than 1m high? The embankments along 3 sides of the reservoir (1.5 miles) will already provide ample dry grassland habitat, so adding the mounds does not add diversity. What is needed is more wet grassland to balance against the large areas of wet grassland already lost at the site, including priority habitat.
- Results in the direct loss of approximately 6730m² of wet grassland and transitional habitat, including 2830m² of prime wet grassland transitional habitat. The creation of wet grassland habitat is a key priority – so it is very difficult to understand why the design team would propose putting large soil mounds on key areas of wet grassland and transitional habitat along the northern shore of the wetland?

Mound location	Height	Length & width	Area of habitat lost
Comp 4 - NE	1m	85m x 8m	680m ²
Comp 3 – NW	1m	50m x 11m	550m ²
Comp 3 – NE	2.4m	80m x 20m	1600m ²
Comp 2 – NW	2.8m	100m x 30m	3000m ²
Comp 2 - NE	1.5m	90m x 10m	900m ²
Rough estimate of total area of transitional habitat lost			6730m²

- The mounds will provide a safe platform for ground and aerial predators to observe and hunt from, increasing the risk of predation along the northern shore and on nearby islands.
- The mounds will be much harder to manage effectively, as a tractor will not be able to traverse the slope, and management using strimmer's will increase disturbance of the wetland.

The mounds should be removed from the design and an alternative location found for disposing of the surplus soil, which does not have such a negative impact on the biodiversity potential of the wetland or wider site.

A9. Islands not shown as emergent; The islands within Compartment 2, 3 & 4 all appear to be illustrated with their upper platform above top water level (39.5m). This is contrary to the design principle set out in;

- The outline design Technical Note, page 21 to 23 which stated, “Island surface levels set to ensure that the island becomes progressively exposed during the normal annual hydrograph to produce seasonally inundated nesting habitat.”
- Drg. HTR-GHD-WL-ZZ-DR-L-0156 (P07) submitted for approval of the Phase 2 wetland design where the notes confirmed; “Island surface levels have been set to ensure that the islands become progressively exposed during the normal annual hydrograph to produce seasonally inundated nesting habitat. Ideally islands will be periodically inundated over the winter to help prevent vegetation succession.

For further comments on island design for the retained wetland please refer to feedback on the ‘Typical Island Feature’ cross section B126. Sheet 2 (ii) below.

The island design needs to be updated to be consistent with the design principles on both the cross section and the landscape drawings for Compartments 2, 3 & 4.

A10. Islands are not orientated to the prevailing wind; The islands within the wetland compartments were shown orientated to the prevailing wind (SW/NE) on the Outline Masterplan for the whole reservoir site and on page 23 of the outline design Technical Note, both approved by the LPA. With the page 22 text confirming that “islands should be aligned to the SW to reduce the potential for erosion from wave action. “The islands within Compartment 2, 3 & 4 are shown in random orientations, they have not been orientated in a SW/NE direction to align with the prevailing wind direction, to minimise the impact of erosion and improve longevity, as recommended by the wetland experts. This is especially important for islands close to the retaining structure spillways, where the long wave fetch from the main reservoir will cross over the spillway into the retained wetland increasing the erosion risk. However, the wetland experts also considered that the retained compartments were in themselves large enough to create their own wave fetch and recommended islands be orientated so that they are less exposed to the prevailing wind to minimise the impact of erosion. This applies to the upper and lower platform of the islands, because as water levels drop different parts of the island will become exposed to more wave action and risk being eroded.

Islands within the retained wetland should be orientated in a SW/NE direction as shown on the indicative design on page 23 of the outline design Technical Note.

Drg. HTR-GHD-WL-ZZ-DR-L-0126 (P01) shows a cross-section for a ‘Typical Island feature’. This shows boulders (300 to 500mm) placed around the upper edge of the flat top platform of the island. While this will offer some protection to the top platform of the island from wind/ wave action, it will do nothing to protect the lower platforms of the island that will be emerged for long periods.

The orientation of the raised upper & lower platforms of each islands should be realigned to the SW/NE to minimise the risk of erosion and ensure the islands last as long as possible.

Note: In most cases, reconfiguring the orientation of the islands to a SW/NE direction should actually work better with the existing contours of the valleys sides to be submerged in parts of Compartment 2, 3 & 4.

A11. Establishing vegetation on wetland features; The seed mixes for wetland features such as the retaining structure are for species that prevail in wetter environments (wet and water edge mix).

- When the retaining structure is first constructed it will be in a dry environment for many years. Is it planned to plant the slopes of wetland features initially with a dry flora seed mix? If so, how will that vegetation be removed when it is time to seed the wet and water edge mix?
- For much of the time the ephemeral islands within compartments 2 to 4 will be below water level. Yet the seed mix shown for the lower island platforms is a wildflower seeding mix (corn cockle, cornflower, common poppy etc.). It seems unlikely that this would be successful in such a wet environment, why is this shown?

A12. Temporary ponds; Three very large temporary lined ponds have recently been constructed where the streams enter wetland compartments 2, 3 & 4. These features are not shown on the landscape drawings. The LPA need to obtain written confirmation to clarify what will happen to these ponds on completion of reservoir construction.

- Will the large holes be filled in to restore the original ground profile?
- If so, has a record been kept of the original ground profile?

A13. How to prevent import of invasive species? No detail is provided with the submission on the measures that will be taken to prevent the import of non-native and invasive species with plants & trees brought to the site. This was flagged as a key concern at the outline design stage.

A110. Sheet 1 of 6 (Drg. HTR-GHD-WL-ZZ-DR-L-0110 (Rev PO3)

i) Outline specification – General; refers to all operations to be carried out by a competent and qualified landscape contractor. Planting a wetland from scratch is a specialist task and requires an experienced wetland landscape specialist team. The specification should be updated to confirm the use of a competent, qualified and **experienced wetland specialist** landscape contractor.

ii) Outline specification – Mowing refers to;

Regular mowing of all or some of the scrape/ marginal areas annually may be required.

Annual hay/ grassland cut of meadow habitat areas, allowing for seeding before collecting cuttings.

It is highly unlikely that the transitional meadow/ grass areas located between the wetland edge and the woodland will be large enough for a hay cut and collect operation to be viable/ practical, as the runs will be too short. It will certainly not be practical to do a hay cut on the proposed new mounds, as the slopes will be too steep for tractor pulled machinery to operate on.

Further clarification needs to be provided as to how the transitional grasslands and proposed new mounds would be appropriately managed to ensure the development of the target habitats.

iii) Where the retaining structure joins the NW shore of the reservoir the only soft landscaping shown is wildflower seeding (as shown on Sheet 1 & 2). There is no provision of an appropriate hedge or scrub planting to provide a robust barrier in conjunction with stockmesh fencing to prevent public and dog access to the retaining structure. **The area in question is within the red line boundary for the wetland and more appropriate soft landscape details and fencing should be shown that will be adequate to ensure access to the retaining structure is prohibited.**

iv) The table setting out the 'Native Wet Woodland' planting mix includes *Rhamnus cathartica* described as Common Buckthorn, but also know as Purging Buckthorn. This is a

species that is common on chalky dry soils, it is not appropriate for the wet woodland planting areas, where it would be more appropriate to plant Alder Buckthorn (*Frangula alnus*) which grows in wet woodland and river edges. The **wet woodland table should be updated to show planting with Alder Buckthorn (*Frangula alnus*)**.

Note: Rhamnus cathartica described as Common/ Purging Buckthorn is included in the planting mix for 'Native scrub' where it could be more appropriate as it is commonly used in scrub and hedgerow mixes but would be suitable on drier ground.

v) It would be beneficial to add broom to the scrub mix. This would add diversity to the mix, rather than having 10% just as gorse. Broom is good for insects and flowers fairly early, providing a very good nectar source for insects, which in turn is good for bats.

vi) Consideration should be given to planting hybrid elm trees along the woodland edge. Hybrid elm are resilient to climate change and resistant to Dutch elm disease. Local studies (including on P. Water land) have shown that hybrid elms are being used by the white letter hairstreak butterfly to lay their eggs, which could help with the recovery of this species. I think the *Lutece* variety has been the most successful, but Jenna Dewhurst (P. Water) could put you in touch with the local project specialist who planted trees at Nelson Reservoir.

vii) General arrangement Sheet 1(Drg. HTR-GHD-WL-ZZ-DR-L-0056) referred to consideration being given to creating skylark plots within the grassland areas. This is not specifically mentioned on the landscape drawings. However, the grassland areas north of the wetland are relatively small, wet in spring, and are close to the woodland edge. This is likely to make them unsuitable for nesting skylark.

A111. Sheet 2 of 6 (Drg. HTR-GHD-WL-ZZ-DR-L-0111 (Rev PO3)

i) The mound shown along the NE shore of compartment 4 **will result in the direct loss of wet grassland transitional habitat, reduce the biodiversity value of the wetland shore and adversely impact the the value of the grassland to the north of the mound** as it removes lines of sight, see A8 above.

If the mound has to stay it should be moved further back to the north alongside the edge of the new woodland planting zone, so the largest area of grassland possible is retained along the wetland shore in the NE of compartment 4.

ii) Islands within compartment 4 are **not shown orientated NE/SW to minimise erosion**. This will be especially important for the central island, which is very close to the Compartment 4 spillway, and will be exposed to the longer wave fetch from the main reservoir water body across the spillway. Even within the compartment the experts advised that they would expect wave action to be generated by the prevailing wind. The upper platform of the islands risk being eroded, reducing their longevity and value as seasonally exposed nesting islands.

The orientation of the raised upper & lower platforms of each island should be re-aligned to the SW/NE to minimise the risk of erosion and ensure the islands last as long as possible.

As a minimum in Compartment 4 the central island (upper and lower platform) should be orientated to SW/NE to minimise the impact of erosion from wave/ wind action.

iii) The below water contours provided on the plan show that the slope around the periphery of compartment 4 is very shallow alongside the central and NE island. With the natural seasonal drop in water level the **channel depth will be inadequate to prevent ground predators from reaching the islands. A deeper channel is needed** between the central island and the shore, and the NE island and the shore (minimum 1.2m). The depth of the channels should be highlighted on the landscape drawing.

iv) Rush and sedge is to be planted between the central island and the NW shoreline. This will make it even easier for predators to reach the island. As advised by the wetland

specialists it will also trap silt and speed up the process of drying, which is not helpful between the island and the shore. **The area of rush and sedge planting should be moved away from the island.**

v) A standing deadwood monolith is shown on the NE shore of Compartment 4 close to the island. This is not appropriate as aerial predators (e.g. buzzards & corvids) use such vantage points to drop onto chicks on islands, reducing the chance of breeding success. **The monolith should be located further away from the island** to reduce the risk. It would also be better to move the cluster of 3 new trees on the water's edge further north away from the NE island.

vi) The landscape protection fencing in NE corner of sheet 2 is labelled as only being 1.5m high, which is not sufficient to protect the woodland planting inside from deer grazing. The area of planting is immediately adjacent to the existing Havant Thicket Woodland and will be subject to heavy deer browsing pressure. **Taller deer fencing should be shown** as has been used successfully elsewhere on site to protect new woodland planting areas.

vii) Sowing of seed should be in spring (April/ May) or late summer/ autumn (August to October) as recommended by the seed supplier, with autumn being best. The flexibility allowed for in the specification is unlikely to produce healthy growth. Yellow rattle should be sown in the autumn to allow chilling to encourage germination. Seed should not be sown on heavy clays in late autumn because the seed is likely to rot.

viii) The size of the western hide (interpretation/ education hide) shown is not consistent with the specification approved by the LPA for the hybrid planning application. The hide should be shown as a 10m x 20m structure.

ix) The western island in Compartment 4 is shown located across an existing valley feature where the water will be much deeper. This will result in the need to fill in much of the natural valley to create the island. Page 24 of the outline design Technical Note showed indicative locations for islands in shallower areas, on page 22 Atkins confirmed that targeted areas were expected to be between 39.5 and 38.5m OD. **The proposed western island should be moved to a shallower area which does not require filling of the existing natural valley.** This will ensure that deeper areas close to the proposed visitor centre are retained.

x) Very concerned that the NW shore of Compartment 4 has been excluded from the wetland planting landscape scheme. This is a critical part of the wetland and the planting scheme in this area is fundamental to the success of habitat creation in wetland compartment 4, and to providing appropriate screening from the busy NW visitor hub area to prevent disturbance.

A112. Sheet 3 of 6 (Drg. HTR-GHD-WL-ZZ-DR-L-0112 (Rev PO3)

i) The 3 mounds shown along the shore of Compartments 3 & 4 **will result in the direct loss of wet grassland transitional habitat, reduce the biodiversity value of the wetland shore and adversely impact the value of the grassland to the north of the mound** as it removes lines of sight, see A8 above.

ii) Comments for sheet 2 also apply to the overlap with sheet 3 including; ii, iii, v & vi.

iii) The gate to the Compartment 3/4 bund access track will become a natural view point. The gate should be set back further north, adjacent to the woodland edge, so that people can stand and view across the wetland and northern shore habitats without causing significant disturbance.

Note: The mounds shown east and west of the compartment 3/4 bund will block views of the foreshore and wetland from the gate, which will impact negatively on recreational use of this area, which is a natural view point.

iv) The below water contours provided on the plan show that the slope around the periphery of Compartment 3 is very shallow alongside both the east and west island. With the natural seasonal drop in water level the **channel depth will be inadequate to prevent ground**

predators from reaching the islands. A deeper channel needs to be provided between the islands and the shore (minimum 1.2m). The depth of the channel should be highlighted on the landscape drawing.

v) Rush and sedge are to be planted between the western island and the NW shoreline of Compartment 3. This will make it even easier for predators to reach the island. As advised by the wetland specialists it will also trap silt and speed up the process of drying, which is not helpful between the island and the shore. **The area of rush and sedge planting should be moved away from the island.**

vi) The eastern island in Compartment 3 is located directly north of the retaining structure spillway. The islands have not been orientated to reduce the risk of erosion from the prevailing wind/ wave fetch over the spillway. See A10 above. **The islands should be re-orientated to the prevailing wind direction to reduce the risk of erosion and increase longevity of the islands.**

vii) The wet woodland shown on the NE shore of Compartment 3 is located in an area of higher ground which is not typically wet. The planting mix for this area should be reconsidered to ensure it is appropriate.

viii) There is no indication that existing trees are to be retained in the upper valley of Compartment 3? Where trees are to be retained information should be provided on what is proposed.

ix) The stockmesh fence shown along the southern edge of the Cat A track is not shown extending to the east of the valley, as a result there is nothing to prevent access to the wetland by people and dogs.

x) Clusters of trees are shown planted on the mound to the NE of Compartment 3 and between the east end of the mound and the access road. These should be moved further north away from the island, otherwise there is a risk that once mature they will provide perches for predators overlooking the islands.

A113. Sheet 4 of 6 (Drg. HTR-GHD-WL-ZZ-DR-L-0113 (Rev PO3)

i) Mounds must not be placed on the area of designated Ancient Woodland north of Compartment 2 (item A6 above). Nor on areas of translocated ancient woodland soils, trees and saplings from The Avenue (item A7 above). The LPA must not allow grassland mounds which are not necessary to provide habitat complexity to be created on an area set aside for ancient woodland restoration. The landscape strategy for this area going forward should continue to be to restore native ancient woodland north of Compartment 2, as set out in the approved Outline Biodiversity Mitigation/ Compensation Strategy.

ii) The existing position of stock mesh deer fencing protecting the 2 areas of translocated ancient woodland soil and trees should be shown on the drawing and retained. Retention of the deer fencing should be part of the landscape strategy going forward to protect the trees from deer grazing and allow natural regeneration of seed blown in from the adjacent Havant Thicket woodland.

iii) The 1.5m fence (purple dash line) shown north of the new soil mounds in the ancient woodland area should be removed, as the existing two deer fences should be retained. A 1.5m fence will not protect the planted trees or self-seeded trees naturally regenerating in this woodland mitigation area from deer browsing.

iv) The drawing shows the two areas over which ancient woodland soils were placed approximately 2 years ago, north of Compartment 2. In the supplementary planning committee report it was suggested that the ancient woodland soils below the proposed large mounds could be relocated to grassland areas.

- It is not appropriate to move the ancient woodland soils to a grassland habitat.

- It is not appropriate to move the ancient woodland soils again, they should be left where they are, adjacent to existing ancient woodland, where the fungi and other species living in the soil have their best chance of survival. Moving the soils twice risks killing more of the flora and fauna living in the soil.

v) The existing gate in the NW corner of the western deer fenced enclosure north of Compartment 2 should be shown on the drawing, as it must be retained for access to enable watering of the trees and other maintenance activities within the enclosure.

Note: A new gate is shown north of the central hide, but any access through that gate is impaired by the presence of a seasonal channel. If the new gate is for access to the woodland restoration enclosure it is poorly sited. It would be better to retain the existing gate to which a track has already been cleared from where the dark grey access route is shown.

vi) Stumps of the Corsican pine trees left around the wetland foreshore in this area are not shown on the drawing. P. Water previously confirmed that a 10m wide belt of stumps had been left along the shore south of where the deer fence enclosures are now sited. **The extent of the stump belt should be illustrated on sheet 4 to both the west and east side of the flooded valley.**

Note: The Natural England representative on the Wetland Specialist Sub-Group specifically requested that pine stumps be left where they would be flooded to create an unusual submerged habitat on which plants could establish, providing an area of cover for fish and invertebrates.

vii) Islands within Compartment 2 are **not shown orientated NE/SW to minimise erosion**, as recommended by the wetland experts. This will be especially important for the parts of the island features which are closest to the Compartment 2 spillway and will be exposed to the longer wave fetch from the main reservoir water body across the spillway. Even within the compartment the experts advised that they would expect wave action to be generated by the prevailing wind. The upper part of the islands risk being eroded, reducing their longevity and value as seasonally exposed nesting islands. The orientation of the upper platforms of the islands should be realigned to minimise the risk of erosion and ensure the islands last as long as possible.

vii) The below water contours shown on the plan show that the slope around the periphery of Compartment 2 is very shallow alongside the western and eastern islands. With the natural seasonal drop in water level the **channel depth will be inadequate to prevent ground predators from reaching the islands. A deeper channel is needed between islands and the shore (minimum 1.2m).** The depth of the channel should be highlighted on the landscape drawing.

viii) No fencing is shown around the north of the valley feature in Compartment 2. Is there stock mesh fencing further north to prevent public and dog access?

ix) It is not clear that the existing trees are being retained in the valley flood zone. This will create an important and different habitat that should be illustrated on the landscape drawings, which adds habitat complexity above and below the water line. Where trees are to be retained information should be provided on what is proposed.

x) The area north of where the ancient woodland soils have been placed is already existing retained woodland which should be a maroon cross-hatch shading. Either the green/blue shading for native/wet woodland planting is wrong, or the area shown for the translocated soils is wrong. This needs to be checked by the design team and the drawing updated to reflect the full extent of the retained trees actually already present and those proposed.

xii) The gate to the Compartment 2/3 access track is a natural viewpoint over Compartment 3, the positioning of the 2.4m proposed mound to the west completely blocks the view across to Compartment 3.

xii) The central hide is shown in a poor location;

- Very close to the water's edge where it will be more difficult to screen.

- On part of the ancient woodland deer fenced mitigation area, where ancient woodland soils have already been translocated.
- Requiring the access track to run for approximately 30m along the shoreline.
- The proposed deciduous hedge, just 2m inset from the water's edge, will not provide adequate screening to prevent disturbance of the wetland, especially in the short term while it becomes established (c. 8 years) and in the winter when the leaves drop.

It would be better to move the hide to the NW where it could be set back from the waters' edge, can be more robustly screened by existing mature vegetation/ trees, with the access path through existing mature vegetation rather than along the shoreline. This would also enable the retention of more wet grassland along the shoreline and help reduce disturbance.

A114. Sheet 5 of 6 (Drg. HTR-GHD-WL-ZZ-DR-L-0114 (Rev PO3)

i) The island feature in Compartment 2 starts just 8m off the foreshore in an area where the water depth is shown as less than 0.5m. With the natural seasonal drop in water level the **channel depth will be inadequate to stop it drying out and preventing ground predators from reaching the islands. A deeper channel is needed between islands and the shore (minimum 1.2m).** The depth of the channel should be highlighted on the landscape drawing.

ii) The ground profile of Compartment 1 is shown as a uniform area dipping very gently to the south. No features have been shown within the retained compartment to create habitat complexity and diversity, as a result the design definitely does not accord with the outline design set out in the Technical Note – Wetland Concept & Outline Design, which was an appendix to the LEMP approved by the LPA. The outline design (page 25) specifically prescribed the need for a variation in water depth which was to be achieved in Compartment 1 by;

- "Creating a peripheral ditch system with shallower interconnecting channels".
- "Peripheral ditch system to be designed to deter access to by both the public and predators such as foxes" (a stockmesh fence will not keep out predators such as foxes).
- "Interconnecting channels to provide wider scraped/ scalloped edges to the channels to increase habitat complexity as the reed bed develops."

A dry reed bed without habitat diversity will have a much lower biodiversity value than that proposed in the outline design for Compartment 1. Reed bed is a declining habitat in the UK and the creation of a significant area of good quality diverse reed bed was a priority for the outline design.

Wet and dry reed bed areas provide habitat for different species, which is why it is important to add channels that provide some variation in water depth, and create more edge habitat, as it is the channel edge habitat that will produce the highest biodiversity gain.

Wetland Managers on the specialist wetland sub-group with more than 35 years experience of managing reed beds emphasised the importance of providing wetter channels within the reed bed to improve biodiversity and productivity, including a channel around the periphery of the compartment to reduce predation. **The loss of these channels in the latest wetland design is a significant negative change.** Stock mesh fencing will not provide a barrier to predators such as foxes.

The habitat value of the reed bed in Compartment 1 must be restored by providing the recommended peripheral ditch and interconnecting channels described in the outline design.

Note: Providing additional areas of ephemeral shallows in Compartment 0 does not mitigate the need for channels in Compartment 1 to optimise the value of the reed bed habitat. Especially as compartment 0 is more prone to drying episodes and does not provide a contiguous block of habitat.

iii) No trees are shown along the retaining bund to Compartment 1. This bund was permitted to have some tree growth as is shown on the section for Compartment 1 illustrated on drawing HTR-GHD-WL-ZZ-DR-L-0050. While it is anticipated that trees will develop in time through natural regeneration and less management intervention to allow some low scrub to develop, it would be beneficial to kick start this by planting a few suitable trees, such as willow in pockets along the bund.

iv) As noted in A113(ii) above the existing position of the stock mesh deer fencing protecting the enclosure to the NE of Compartment 2, where ancient woodland soil and translocated trees are already present, should be added to the drawing and retained.

- The 1.5m purple dashed line should be removed through the existing woodland enclosure.
- The existing gate in the eastern end of the enclosure should be added to the drawing, as it must be retained for access to enable watering of the trees and other maintenance activities.

v) The existing deer fence located north of Compartment 1, which protects the area of ancient woodland soils and translocated trees is not shown on the drawing. Instead, a 1.5m landscape planting protection fence is shown. Such a low fence would not provide protection against browsing deer that will be able to jump a 1.5m fence. It is important that the existing deer fence is retained, and the drawing amended to show that it is present.

vi) The eastern hide is shown in a poor location;

- Very close to the water's edge where it will be more difficult to screen.
- With the access track extending closer to the shore than it needs to.
- The proposed deciduous hedge will not provide adequate screening to prevent disturbance of the wetland, especially in the short term while it establishes (c. * years) and in the winter when the leaves drop. There are gaps shown between the hedge and the hide which is not acceptable.

It would be better to move the hide to the north where it could be set back from the waters' edge, can be more robustly screened by existing mature vegetation/ trees, with the access path being the existing track. This would enable the retention of more wet grassland along the shoreline and help reduce disturbance.

vii) North of Compartments 1 and 2 are areas with clusters of black crosses, which the key indicated represents tree stumps. It is not clear if these are tree stumps to be created by cutting down trees, or where tree stumps are still to be placed?

- Clarification should be provided on the purpose of the tree stump placement in the locations shown.
- The best use for tree stumps excavated from the reservoir site would be to use them to block desire lines to stop people entering parts of the wood where they could get access the wetland shore. Forestry England have previously advised that they have successfully used lines of tree stumps to deter access as the stumps quickly get overgrown with brambles etc.

A115. Sheet 6 of 6 (Drg. HTR-GHD-WL-ZZ-DR-L-0115 (Rev PO3)

The number and size of the features shown offshore in Compartment 0 is on a different scale to that proposed by the wetland experts at the outline design stage with;

- numerous 'island type' features created some distance from the shore.
- 'island type' features up to 50m long

No supporting text has been submitted on the design of the 'ephemeral shallows' to explain the change in design philosophy.

The outline design was for localised ground manipulation along the shallow edge of the bay in the NE corner of the reservoir. The intention was not to create permanent islands in this area of the reservoir, as the water depth here would be very shallow and prone to dropping water levels in the summer, even in a normal summer when there is no drawdown of the reservoir. The outline design was to create shallow peaks and troughs along the shoreline that provided different depths of water when the reservoir is full for a wider variety of plant species to flourish, creating bowls of standing water as levels drop naturally in summer. Trying to optimise the habitat for a variety of plants, insects, amphibians etc. in what could otherwise just be an exposed muddy slope in summer.

The ridges and furrows illustrated on page 25 of the outline design Technical Note Outline Wetland Design Technical Note were all shown orientated SW/NE and that was deliberate. The orientation of the ridges and furrows was important. The wetland experts advised that they needed to be aligned to the SW prevailing wind. The reservoir is a mile wide east to west, the wind blowing across the reservoir will whip up/ create waves that will move in the direction of the wind (i.e. the fetch will be from the SW driving into this bay in the NE). Orientating the ridges & furrows in a SW/NE direction would allow the waves to drive up between the ridges & furrow onto the grassland shore increasing the wetted area of the shore, while reducing the risk of erosion of the ridges themselves. A ridge orientated in any other direction will be subject to the full force of the waves, which in a storm will be considerable and result in erosion, reducing the life expectancy of any raised features in this area.

The wetland experts advised against the creation of islands in the NE, as any islands created in this shallow area of the reservoir would become stranded as water levels dropped, in summer making them unsuitable as a nesting habitat for birds, as they would be very vulnerable to predation. They would also be exposed to significant erosion due to wave action and as a result would not be likely to survive very long without substantive maintenance interventions.

Given the advice of the wetland experts I am not convinced that the design change in this area is positive. All but one of the 'island' type features touch the 39.0m under water contour and can be expected to be stranded in a normal summer.

Note: As the wetland expert put it; having islands in the NE may actually be a disadvantage, as the presence of islands in the spring may encourage birds to nest, then when they become stranded by dropping water levels, the eggs are more likely to get predated, or the adults may desert when they realise they are no longer safe. Whereas, if the islands were not present in the NE at all, then the birds would have to find somewhere safer to nest within the retained wetland ensuring a greater chance of breeding success.

As a minimum more of the raised features and depressions should be orientated SW/NE to work with the prevailing wind, especially in the NE bay of the reservoir.

Additional comments on the revised design shown on Sheet 6 are provided below.

i) The changes made to the design of the ephemeral features in the NE (Compartment 0) will increase the need for future management, not reduce it, as was suggested in the Supplementary Addendum to the July 2024 planning committee report. They have changed the design from gentle local undulations in the shallowest part of the foreshore, which if orientated to the prevailing wind should have been kept open by wave action. To the creation of larger offshore 'island' type features in the NE of the reservoir up to 50m long which will require more maintenance to regularly remove non desirable vegetation, plus to restore ground levels, as those in more of an east to west orientation will quickly be eroded by wave action driven by the prevailing wind.

Under the original design the ephemeral shallow features would have been along the shoreline / in the shallows that dry out every year making maintenance easier, as the undulations could be accessed from the shore when dry in summer. Whereas the further

offshore islands now shown are likely to be harder to access and maintain. While many of the proposed 'island' type features will probably be stranded as water levels drop seasonally, accessing them through deeper mud will be challenging and a health & safety issue. How has this been taken into account?

ii) Why do the notes refer to a maintenance period of just 5 years? A long-term maintenance plan is needed for the wetland landscaping.

iii) There is an existing land drain which will be below top water level which provides existing variation in ground levels orientated in a SW/NE direction, which will create an underwater valley. Why is ground manipulation (island & furrow) creation shown cutting across this deeper channel feature? Surely this is unnecessary, and any new features should work with the existing ground levels and run parallel to the land drain.

iv) Page 24 of the Technical Note - Wetland Concept & Outline Design (Atkins - April 2020) proposed that options were explored to link in the ditch drainage system to the north, to keep grassland habitats wetter for longer. This followed a suggestion from the Natural England wetland specialist which was supported by the other wetland experts. The text stated that; "Further work is required to determine the arrangement of such features within the wet grassland area and how the ditch habitats can be integrated into the wet grassland design to take advantage of existing low points. This requires further review of existing ground levels and the influence of drawdown events on habitat provision". No additional linkage is shown from the northern boundary ditch across the NE grassland. What was done to investigate the possibilities for this?

v) The specialist wetland sub-group recommended that the existing grassland in the NE be fenced off and protected during construction, as the experts felt that the sward had the potential to develop into a suitable wet grassland once the area was flooded and regularly inundated along the shore, as much of it was already quite wet. This was recorded on page 24 of the Technical Note - Wetland Concept & Outline Design; "There is a requirement to protect the existing grassland habitat as part of the construction activities to facilitate the establishment of wet grassland." Despite this the revised design now suggests this area of grassland is to be dug up and replaced with rush pasture/ purple moor grass (priority habitat) soil relocated from other areas of the site. This would be a complete waste of the priority habitat soils excavated and stockpiled because;

- The existing soil in the NE does not need to be removed and is expected to develop into suitable wet grassland habitats.

- The soil in the priority habitat stockpile(s) should be replaced where much of it was removed from in the SW of the reservoir site alongside the stream line, where drainage from the existing spring line and flooding from the stream ensure wetting, to enable the priority habitat to be re-established on completion of construction. The SW area between the existing spring line and the re-formed stream line provides the best chance of re-establishing the rush pasture/ purple moor grass priority habitat, especially if drainage from the embankment toe is directed into this natural bowl, as previously discussed with the Atkins drainage engineers and ecologists. The mitigation strategy already earmarks this SW area for restoration of the priority habitat.

- On landscape Sheet 6 the translocated priority habitat soils are shown being placed right up to the red line boundary in the NE, where the soil will be dry as it is on higher ground at the top of a slope. This is not appropriate, priority habitat soils should only be translocated to low points, ideally in the SW where wetting can be guaranteed, giving the priority habitat seed stock in the soil its best chance to re-colonise.

- The priority habitat soil is also shown placed in areas below the top water level, where there is a high risk that the soil will be washed away by wave action. There is also the question as to whether the plants present in this priority habitat are of a type that can survive being underwater for more than 6 months?

vi) The island type features in the NE are shown as having a wildflower seed mix cover. These features are only marginally above top water level (maximum 0.5m) and are likely to be regularly over topped by wave action due their exposed location. Further consideration should be given as to what would be an appropriate seed mix for these features.

vii) The existing deer fence located north of Compartment 0, which protects the areas of ancient woodland soil and translocated trees is not shown on the drawing. Instead, a 1.5m landscape planting protection fence is shown inset north halfway across the woodland soil translocation area. Such a low fence would not provide protection against browsing deer that will be able to jump a 1.5m fence. It is important that the existing deer fence is retained around the whole of the ancient woodland soil/ tree translocation area and the drawing amended to show that it is present.

viii) Stumps are shown in 2 clusters along the NW shore, but it is not clear what the purpose of these are so close to the shore of the wetland. Especially as they are shown placed on top of translocated priority habitat soils.

B. Wetlands Area Landscape Construction Details

B125. Sheet 1 (Drg. HTR-GHD-WL-ZZ-DR-L-0125 (Rev PO1)

i) Not clear where Detail 4 for a hedge on a mound applies. Landscape sheets 1 to 6 do not show the planting of any hedges on mounds?

Perhaps this detail applies to the tree planting cluster on the mound in the NE area of Compartment 3?

Perhaps it applies to the landscape planting along the NW edge of Compartment 4 which is not currently shown on landscape sheet 1 and 2?

B126. Sheet 2 (Drg. HTR-GHD-WL-ZZ-DR-L-0126 (Rev PO1)

i) It is unclear what detail 6, 7 & 9 relate to? The titles of the sections need to make it more obvious what they relate to.

Presumably 6 & 7 are not the southern slope of the retaining structure as no armouring is shown to prevent erosion of the retaining structure?

Presumably 6 & 7 are not the existing northern shoreline as it shows shelving?

Whereas along the northern shore natural ground levels are to be allowed to flood, so there is no shelving.

Where does detail 9 for 'typical seasonal scrape feature' apply? Are they the depressions for the ephemeral shallows in the NE (shown on Sheet 6).

ii) There are a number of concerns about the cross-section for the 'Typical Island feature'.

- a) The 'Typical Island' cross-section shows top water level (39.5m) roughly level with the second shelf of the island. This is not consistent with the outline design principle for ephemeral islands that should emerge in the spring, nor Drg. HTR-GHD-WL-ZZ-DR-L-0156(P07) submitted for approval of the Phase 2 wetland design where the notes confirmed; "Island surface levels have been set to ensure that the islands become progressively exposed during the normal annual hydrograph to produce seasonally inundated nesting habitat. Ideally islands will be periodically inundated over the winter to help prevent vegetation succession." **The cross-section should be updated to show top water level just above the top of the typical island feature.**

Note: While it would be acceptable to have some islands within the retained area that remain above top water level with grassy vegetation that may be suitable for different species to utilise, ephemeral islands that become exposed through the spring should represent the 'typical' island detail as set out in the outline design. The way forward would be show 2

different cross-section details, one for emergent islands and the other for permanent islands, with clarity shown on the landscape sheets as to where these apply.

- b) This cross-section shows boulders (300 to 500mm) placed around the upper edge of the flat top to the island. While this will offer some protection to the top of the island from wind/ wave action, it will do nothing to protect the lower platform of the island that will be emerged for long periods. **The islands (including the lower layers) should be orientated SW/NE to minimise the impact of erosion from wave/ wind action and a note should be added to the section to clarify this.**
- c) The labelling on the section is confusing as on the left side there is a label for wetland and on the right side a label for reservoir, indicating that the island is actually spanning the retaining structure. This is not correct, all of the islands should be located north of the retaining structure, so both sides of the island will be within the retained wetland. **The section should be updated to remove the reservoir label.**
- d) The upper island platform is shown as a 300mm gravel bed on top of 200mm of topsoil. This is not an appropriate design.

Topsoil should not be used below the gravel as it will encourage vegetation growth on the islands which is not desirable when the islands are being designed to attract nesting waders and terns which generally prefer an open stone or shell substrate.

The presence of a soil layer will increase the risk of erosion of the island, acting as a plane of weakness.

Instead of soil use an extra thick layer of highly compacted stone or shell to create the upper raised section. The wetland experts recommended the stone/ material on top was sized to create optimum habitat with potential for a variety of species to nest, so not all islands would necessarily have the same dressing on top. For example, terns prefer small shingle & shell substrates. The detail for construction of the layers below the soil is not given, nor is it clear if the design includes a geomembrane or geotextile?

Note; The Supplementary Addendum Report to the Planning Committee in July 2024 referred to; "This islands are to be constructed using geotextile and gravel with boulders to prevent erosion".

The wetland experts each with more than 35 years of island design & maintenance experience advised against using geotextile or plastic membrane layers in the construction of islands. This is because the islands will erode exposing the geotextile/ plastic membranes which is not only very unsightly, but it also quickly degrades, becomes dysfunctional and ends up broken up around the wetland edges. Instead, they recommended using materials which are low maintenance, such as thick layers of compacted rock/stone to armour the tops of the islands to reduce erosion.
- e) The lower platform of the island is labelled as being seeded with wildflower EM5. This is not appropriate as for large periods of the year the platform will be submerged.
- f) Why is no gravel or other substrate shown on top of the lower platform that will emerge as the water levels drop. The landscape sheets 2, 3, & 4 all show no shading for the lower platform.

B127. Sheet 3 (Drg. HTR-GHD-WL-ZZ-DR-L-0127 (Rev PO1))

Detail 12 (Spillway Feature with Vehicle Access) labels the access track on top of the retaining structure as; Access track 300mm of DTP Type 1 seeded with wet and waters edge mix by Barenburg. Crest track surface topped dressed with fines prior to seeding”

The access track on top of the retaining structure will be well above top water level and be well drained where a ‘wet and waters edge mix’ is not likely to be appropriate.

The wetland experts advised against soiling and seeding the top of the retaining structure, including the road, instead they recommended a natural stone substrate be placed that did not encourage the growth of lush grass to reduce the attractiveness of the retaining structure to non-native geese. Further detail on the reasoning for this is set out in item A5 above.

This comment regarding not soiling and seeding the top of the retaining structure also applies to Detail 14

Detail 13 (Spillway feature with no vehicle access) still includes the track label, even though there is no vehicle track. The wetland expert’s advice on using a natural substrate which is left to naturally colonise on the surface of the structure, rather than dressing with soil and seed also applies to the top of this structure.

The comment regarding not soiling and seeding the top of the structure also applies to Detail 15

The top of the retaining structure will be well above top water level and be well drained where a ‘wet and water’s edge mix’ is not likely to be appropriate.

B128. Sheet 4 (Drg. HTR-GHD-WL-ZZ-DR-L-0128 (Rev PO1))

Detail 16 (Spillway feature with no vehicle access) – Compartment 1 retaining bund

The comment regarding not soiling and seeding the top of the structure also applies to Detail 16.

The top of the retaining bund structure will be well above top water level and be well drained where a ‘wet and water’s edge mix’ is not likely to be appropriate.

C. Missing Information

C1. Phasing information; The current phasing plan lacks any detail on when various aspects of the wetland will be constructed. Future Water have previously indicated that not all of the construction works associated with the development of the wetland would be complete in 2024/25, some such as the ephemeral shallow re-profiling may be undertaken at a later date. **The LPA should seek further information from the developer on the programme for the wetland development, including any sub-phases.** This should provide details on when trees in different wetland zones will be felled, when earthworks in different areas will be undertaken, when island landforms will be created, when ephemeral shallows will be formed, along with details as to the timing of temporary and permanent landscaping works, and when robust protection fencing will be installed.

C2. Future Management; There is a lack of detail on future management proposed in order to maintain and optimise the ecological value of the wetland and associated habitats, including the retaining structures. However, this is fundamental to understanding how existing habitats will be replaced and the mitigation/ compensation delivered in the short, medium and longer term. Many habitats will take time to establish, with monitoring and management will be fundamental to the success of the wetland.

C3. Future water level management; The Ecological Mitigation, Compensation & Enhancement Report for the Phase 2 wetland referred on page 14 (VCC7) to active management of water levels in the wetland to improve resilience to climate change. It is not clear what this meant, nor what is proposed to deliver this? For example, in a double year drought where reservoir drawdown may extend over 2 or 3 years the wetland habitats will become extremely stressed and some more vulnerable species may die. This would be a particular concern as the new habitats are establishing. There was previously some discussion about whether water retained in the borrow pits could be used to pump water into the wetland, perhaps using solar or wind powered pumps. Is anything of this nature being proposed?

Details should be included in the supporting information with the reserved matters application about **how the most critical wetland habitats could be protected in extreme drought scenarios, where otherwise the vegetation will be under threat**. For example, how measures might be employed to pump water from the borrow pits into more sensitive areas of the wetland, potentially using solar or wind pumps.

Concluding Statement

The reservoir wetland will be here for hundreds of years. It is incumbent on everyone involved to make sure that it is designed so that it is 'the best it can be', not only for the future, but to mitigate and compensate for the well-loved and precious countryside habitats that have been lost.

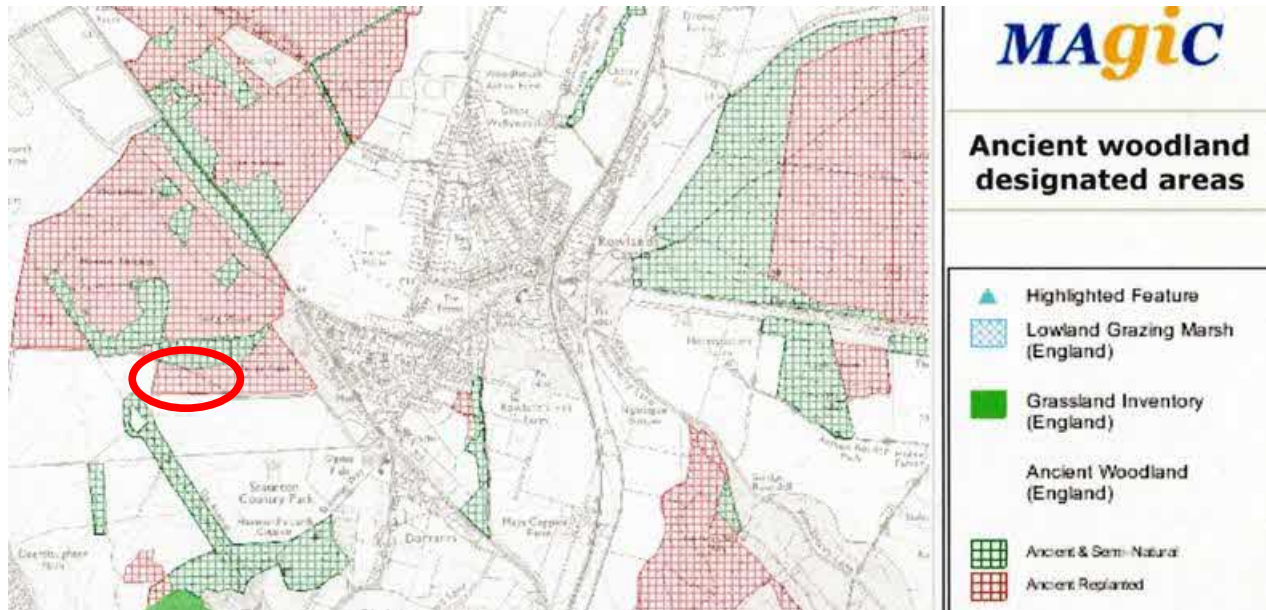
What is proposed in the wetland landscape design does not deliver a wetland that is the 'best it can be'.

If the LPA are minded to grant consent for the Phase 2 wetland additional conditions in line with my comments submitted on 15 July 2024 should be applied.

Condition 28 relating to soft landscaping should not be discharged at this time. Modifications to the design and further details are required as set out in my detailed comments above.

Appendix A

Ancient Woodland Areas – Havant Thicket



Former Corsican Pine Plantation Area – Confirmed as Ancient Woodland

Outline Biodiversity Mitigation & Compensation Strategy

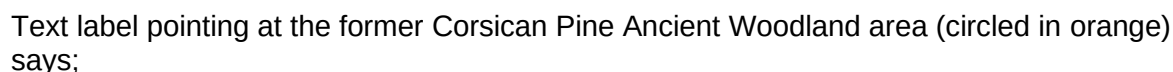
Map 6 – Habitat Enhancement Plan (extract)



Area of Corsican Pine plantation not flooded shaded as;

Conifer clear fell area (any existing broadleaved retained and areas replanted with deciduous trees)

Map 6 – On site retained, enhanced & Created habitat (extract)



Note also the purple area below the reservoir in the SW. This is where the habitat was to be reinstated to create priority grassland habitat (Purple Moor Grass Rush Pasture).

There was a small area of priority habitat already here alongside the stream. The soil has been excavated and stockpiled to make way for a temporary surface water pond during construction. The soil should be replaced in the purple area to kick start the development of new priority habitat formation. It should not be transferred to the NE area of the wetland, where the existing wet grassland should be retained, as recommended by the wetland specialists.

The SW area is more suitable for development of the priority habitat as it is a natural hollow where there is a spring line to the west and a stream to the east, ensuring that the reinstated grassland should remain wet for longer. There is also the opportunity to direct the drainage from the embankment toe drain into the area to increase wetting, as previously discussed with the Atkins engineers and ecologists.

Note: The proposed extension of the southern reservoir embankment in the SW, which is subject to a separate reserved matters (& Section 73) planning application, will reduce the area of grassland for reinstatement in this SW area, resulting in the creation of less wet grassland habitat.