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Kings Pond Meadow Position Paper

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1. KINGS POND MEADOW

1.1. INTRODUCTION

- 1.1.1.1. At Deadline 7, Winchester City Council (WCC) submitted a Kings Pond Meadow Habitat Survey Report (REP7-095) which details a botanical survey of Kings Pond Meadow Site of Importance for Nature Conservation (SINC) carried out by Hampshire Biodiversity Information Centre (HBIC). The survey was undertaken in May 2020 and the Report validated and published in July 2020. The Applicant was previously unaware of the report or the survey's existence, receiving it in January 2021.
- 1.1.1.2. The Applicant has considered the Report and "WCC Paper No. 6 Comments" (issued by WCC) on Denmead Meadows Position Paper (REP7-101) and Natural England's response (REP7-107) at Deadline 7 which related to the results of the Report.
- 1.1.1.3. This position paper outlines the botanical surveys undertaken by the Applicant and HBIC, and reviews the mitigation proposed for Kings Pond Meadow SINC. The paper presents a definitive overview of the ecological mitigation and management to be applied to the Denmead Meadows complex.
- 1.1.1.4. The methodologies and rationales outlined are the result of consultation with both WCC and Natural England since Deadline 7. These aspects are also outlined as agreed through the respective Statements of Common Ground submitted at Deadline 8. It should also be noted that the paper supersedes the Denmead Meadows Position Paper submitted at Deadline 6 (REP6-072).

1.2. SUMMARY OF BOTANICAL REPORTS AND BASELINE CONDITIONS

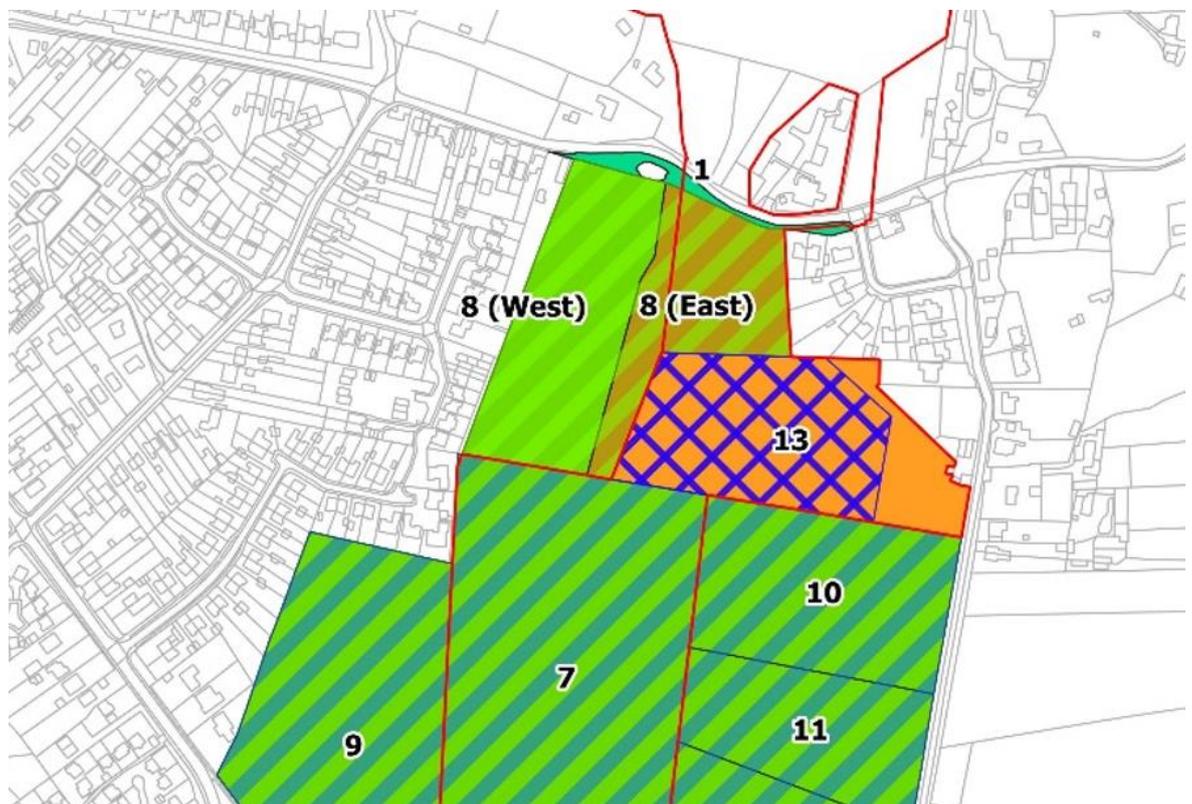
- 1.2.1.1. In July 2019, WSP undertook a National Vegetation Classification (NVC) survey to determine and map habitats within the Denmead Meadows complex. Results and field numbering, along with the extent of the horizontal directional drilling (HDD) compound (i.e. HDD5 reception compound) are shown in Figure 1 below. Survey included all fields within the Order limits including Field 8 (east) which lies within Kings Pond Meadow SINC. Field 13 which lies to the south and east of Field 8, but not within the SINC boundary, was also surveyed. These surveys informed the Proposed Development's Environmental Statement (see Chapter 16 Onshore Ecology (APP-131) and supporting Appendix 16.4 (APP-412)).
- 1.2.1.2. The Applicant's survey work identified Field 8 (east) as comprising unimproved neutral grassland conforming to NVC community MG6B/MG13, and Field 13 as semi-improved neutral grassland conforming to NVC community MG6/MG11. Grassland in these fields was not identified as of Habitat of Principal Importance (HPI) quality.
- 1.2.1.3. HBIC undertook a botanical survey in May 2020 focussed on Kings Pond Meadow SINC and covered Field 8 (east). It did not cover Field 13. The results of this survey broadly agree with that undertaken by the Applicant, but it differs in the finer-scale of

the sampling undertaken, possibly as it covered a more restricted area within Denmead Meadows. The HBIC Report details that Field 3 (including Field 3 west, outside of the Order limits) comprises a mosaic of areas with higher and lower botanical species richness across the SINC. Some areas are identified by HBIC as of Lowland Meadow HPI quality and others not.

1.2.1.4. Both reports agree that Kings Pond Meadow SINC is heavily grazed, with the soil and botanical community subject to the effects of livestock presence. HBIC identified green-winged orchid, a key species of importance, in the south-west of Kings Pond Meadow SINC outside of Field 8 (east).

1.2.1.5. The above information has been used to evaluate the approach to mitigation at Fields 8 (East) and 13 as detailed by the Denmead Meadows Position Paper submitted at Deadline 6 (REP6-072).

Figure 1 – 2019 NVC survey results, field numbering and HDD5 reception compound.



1.3. MITIGATION

OVERVIEW

1.3.1.1. Although HBIC's data suggest that patches of Lowland Meadow exist within Field 8 (east), the habitat is subject to the significant effects of grazing and agricultural use and thus its condition is modified compared to that observed in the south of Denmead Meadows which is not subject to such grazing pressure.

- 1.3.1.2. Restoration of grassland habitat will be undertaken by maintaining soil horizons, avoiding compaction of soils and restoration through reseeded. This will be supported in Field 8 (east) by cutting and storage of whole turves from the area to be trenched. The mitigation measures to be put in place in each field to achieve this restoration are described below.

FIELD 13 - HDD5 RECEPTION COMPOUND

- 1.3.1.3. Mitigation will comprise soil protection and grassland restoration measures as follows:

- Where stripping of top soil is required to level and prepare the compound's surface, it will be stored for the duration of the compound's operation, and replaced following completion of HDD works. No subsoil excavation will be required and this horizon will be left in-situ.
- Use of a suitable ground protection solution, such as matting supported by Teram or similar geotextile but the final decision to be informed by contractor, and low ground pressure machinery to avoid compaction of soils adjacent to the trench.
- Reseeding using a local sourced Lowland Meadow seed conforming to the MG5 NVC botanical community.

FIELD 8 (EAST) - TRENCHING FOR THE CABLE CORRIDOR

- 1.3.1.4. Mitigation will comprise soil protection and grassland restoration measures, supported by cutting, storage and replacement of whole turves from specific areas within the Order limits. Measures will comprise:

Pre-construction survey:

- Botanical survey of Fields 8 and 13 (those affected by works) using the same methods as used to inform the ES will be undertaken prior to construction and post-construction. National Vegetation Classification (NVC) will be used to identify plant species present and classify the botanical communities present.
- Results of this survey, alongside those of the HBIC survey, will be taken into account when setting the alignment of the haul route across Field 8 (East), where possible.

Cutting and storage of turves:

- Cutting of whole turves to approximately 50cm depth, including the whole soil profile, will be undertaken within the Order limits from the following areas:
 - above the cable installation trench;

- areas adjacent to the trench where sub-soil removed will be stored.
- Turves will be stored within the Order limits in Field 13, outside of the HDD5 reception compound. The intention will be to cut and replace turves as trenching progresses¹.
- A water bowser will be supplied and an automatic irrigation system, to be controlled and monitored by the Ecological Clerk of Works, installed to prevent the turves drying out. There will be no stacking of turves which will be spread out on the ground in a single layer. There will be minimal or no gap between them so as to reduce the overall surface area for evaporation and reduce the risk of them drying out.
- Turves to be kept moist with watering as required; daily monitoring and potentially twice daily (morning and evening) watering required. Use of an automatic sprinkler system preferable.
- The total area of turf to be cut will be approximately 2000m².

Ground protection:

- Use of low ground pressure machinery for works to avoid soil compaction.
- Installation of a porous ground protection solution with open structure comprising a geo-textile bottom layer, geogrid reinforcement layer followed by type 1 stone, to areas not covered by turf cutting (i.e. works areas either side of the trench). This will protect the turf left in-situ from the effects of trenching works, such as compaction.
- Ground protection will also be used to offset effects of the haul road which will link the HDD5 reception compound with Anmore Road, in place for the approximate 13 week period over which HDD5 will be undertaken and for the duration of trenching.
- Storage of sub soil excavated from the trench during its excavation. There will be no mixing of soils horizons as turves above the trench will have been removed.

Restoration

- The duration of turf storage will be for a maximum 3 weeks, the expected duration of trenching work in Field 8 (east).

¹ This method of cutting and replacement of turves is being employed to protect sports fields in other parts of the Order limits, such as Portsmouth University and Bransbury Park. However the depth of cut turves in these locations will be shallower as its focus is to protect the surface of sports pitches.

- Replacement of soil structure into the trench following cable installation; sub-soil with stored turves replaced on-top.
- Replacement of turves to soil storage areas and haul road.
- Collection of seed from plants growing within Lowland Meadow HPI habitat at Denmead Meadows will be undertaken and used to re-seed Field 8 (east) post-construction. Seed will be harvested using a brush harvester prior to commencement of works, rather than buying in a commercial seed mix. This work will be undertaken by a specialist contractor with experience of using a brush harvester for lowland grassland restoration. Seed will be harvested in the year prior to the onset of works, or else in the year when works are anticipated to take place, and will be dried and stored until required; these actions will follow current best practice guidance². Two seed collection sweeps will be undertaken, one in late June/Early July to catch early flowering plants and one in late August/early September for late flowering plants.
- To ensure habitats are successfully reinstated, the area of Field 8 East subject to removal and replacement of turves would be fenced off to allow them to reintegrate with the surrounding soils undisturbed by livestock. Fencing will be left in place through the winter wet period which has been highlighted as important to the maintenance of habitats in the area, and also through the plant growing season in spring and early summer following works to allow vegetation to regrow. Removal of fencing will take place at the end of July in the year following completion of works.

1.4. MANAGEMENT

- 1.4.1.1. Fields 8 (east) and 13 will be managed to allow them to regenerate to their former condition post construction. An assessment will be made each year within the 5 year post-construction management and monitoring period as to whether aftercare management is needed, and appropriate actions taken, as detailed in the Onshore Outline Construction Environmental Management Plan (CEMP) (REP7-032).
- 1.4.1.2. Management will involve weed cutting/pulling, with a focus on removing invasive species to avoid them becoming dominant. Arisings will be removed and disposed of away from Denmead Meadows to aid retention of the nutrient status of the soils. Actions required and their timing will be informed by botanical surveys undertaken as part of monitoring (see below) and will be kept to areas that are affected by the works within the Order limits so as not to alter retained habitats.
- 1.4.1.3. Overall, the land uses of the meadows as a whole will remain unchanged as to the preconstruction condition, as determined by the landowner. Currently grazing occurs

² Magnificent Meadows (2017) *Guidance Note: Lessons learnt harvesting, storing and spreading seed*. Available at: <http://magnificentmeadows.org.uk/advice-guidance/section/technical-information-for-advisers>.

in Field's 8 and 13 and this is expected to continue but is not under the control of the Proposed Development.

1.5. MONITORING

1.5.1.1. Botanical survey of Fields 8 and 13 (those affected by works) using the same methods as used to inform the ES will be undertaken in each year of the 5 year post-construction management and monitoring period. NVC will be used to identify plant species present and classify the botanical communities present. In addition, monitoring surveys will assess grassland condition to inform aftercare management. Suitably qualified botanists will carry out the survey work.

1.6. RESIDUAL EFFECTS

1.6.1.1. The mitigation described above, supported by management and botanical monitoring, will restore the grasslands in Fields 8 and 13 to their pre-construction state and maintain their existing botanical importance. There will therefore be no significant residual effects on grasslands within Fields 8 and 13 as a result of the Proposed Development.

1.6.1.2. All mitigation detailed above will be secured in the Onshore Outline CEMP submitted at Deadline 8 of the Examination.