

From the Chairman of the Friends of Raleigh Park

Planning Application P2020/V2298/FUL

The Friends of Raleigh Park object to this development on the grounds of unavoidable damage to an area of ecological importance. We objected to the earlier plans for development on this site in 2017 (P17/V1862/O). The new plans, which propose a less intensive development, are still very damaging to the Park, at a time when concerted activity is taking place to preserve its rare habitats. They come hard on the heels of a separate proposal to develop a neighbouring plot off Yarnells Hill (P2020/V1392/FUL), which was withdrawn but will doubtless soon be resubmitted. It is imperative that planning bodies formulate a clear overall policy on the development of greenfield and garden sites so close to Raleigh Park, so that it is not threatened by piecemeal opportunistic redevelopment proposals.

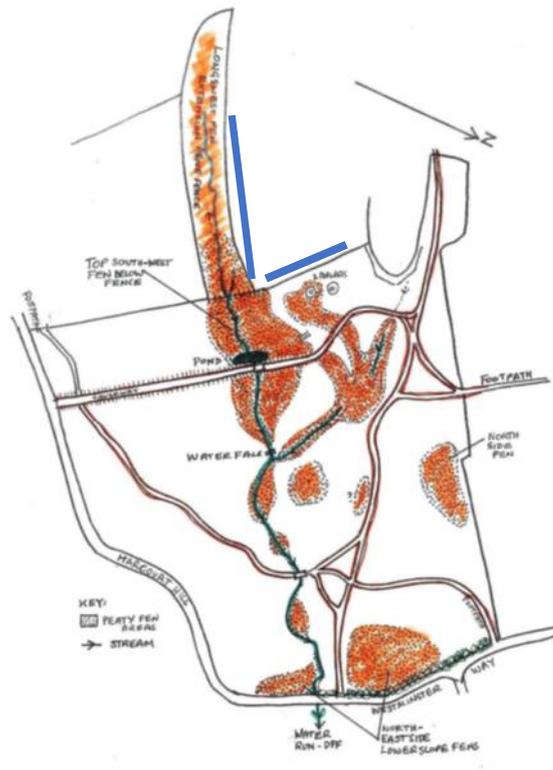
This response necessarily repeats contextual information and documentation submitted in response to previous (withdrawn) planning proposals.

The proposal is for three substantial detached houses, one located close to Yarnells Hill and two more further down a slope above a watercourse feeding the Raleigh Park fen. This submission sets out the environmental context of Raleigh Park and the deficient understanding of it demonstrated by the documentation for the proposal (particularly the ecological and drainage reports), before detailing the reasons for rejection of the plans, under the headings of excessive development, hydrological damage, and threats to wildlife and biodiversity.

1. Context: Raleigh Park

Raleigh Park is a local green space which was gifted to the people of Oxford in 1924, and is held in trust by Oxford City Council (OCC), under the management of their Parks Department. The Friends of Raleigh Park were founded in 2011 to provide a direct link between local residents (primarily in North Hinksey Parish) and Oxford City Council. The publicly accessible area of the Park was declared a Local Wildlife Site in 2014; a proposal is currently under consideration to extend the Local Wildlife Site area to include the Long South West Fen which contains the stream feeding the pond and the watercourses which emerge from it.

Since 2016 the Park has been part of the Wild Oxford Project run by BBOWT in conjunction with OCC, which has enabled extensive recuperation of fen and grassland areas. (The most recent [report](#) by BBOWT's ecological consultant Dr Judith Webb is available on the Friends of Raleigh Park website). The Park is also part of a project by the Freshwater Habitats Trust, [Saving Oxford's Wetland Wildlife](#). Recent scrub clearance has opened up a new viewpoint towards the city of Oxford, enhancing its status in the Oxford View Cones network. The achievements of Wild Oxford in Raleigh Park were recognised by a Letter of Commendation from the Oxford Preservation Trust in their 2018 awards.



Watercourses and fen areas in the Park, including the Long South West Fen (Judy Webb). Boundaries with development site marked in blue.

The Park contains an area of calcareous alkaline fen, which is an extremely rare habitat of which there are only 19.1 hectares in the whole of the UK. (The local area has nearly one sixth of the national total: beside the 0.88 ha of fen in Raleigh Park, Lye Valley and Chilwell Valley contain a further 2.24 ha, with an unquantified area in the Louie Memorial Copse.) For these sites it is crucial to guarantee a supply of rainwater and unpolluted groundwater from their catchment areas, as explained by Dr Judith Webb's initial report on the Wild Oxford Project:

Wetlands live or die by their water supply. There needs to be sufficient water supply to ensure all-year-round water at the surface and for these fens the water quality needs to be good (unpolluted). It is particularly important that the levels of chemicals like dissolved nitrate and phosphate are very low. For a good spring water supply there needs to be plenty of natural green vegetated areas in the catchment upslope and the catchment must not be covered by a lot of hard surfacing, which prevents rainwater entering the ground. Green fields and gardens enable rainwater to freely penetrate the ground and enter the limestone aquifer underground, from whence it later emerges downslope in spring and seepage zones. The cleaner the water, the higher the diversity of aquatic and wetland wildlife produced. In March 2017 simple test kits supplied by the Freshwater Habitats Trust (FHT) were used to find out the phosphate and nitrate levels in spring water at two points on the west side as it entered the park. [...] The results for Raleigh Park showed that the water entering had no detectable phosphate, but for nitrate, it was not completely clean, showing a low level of 0.2 parts per million present. This small amount of nitrate is likely to be coming from water pipe, sewer or septic tank leaks from developments upslope of the park. (from J. Webb, [Wild Oxford Project Report 2016/17](#), p. 11).

The Long South West Fen, which is not part of the publicly accessible area of the Park, has only recently been explored in detail, and like the Park fen is a wildlife area with spring fed tufa-forming and iron oxide-forming zones of wetland and peat formation.

The Park, outlined in red on the geological map below, occupies a hillside area bounded by the houses of Yarnells Hill and Sweetmans Road to the North, Raleigh Park Road to the East, and Westminster Way and Harcourt Hill to the South and West. It is part of the hydrological system by which rainwater drains to South and East, emerging in natural springs where the Kingston sandstone meets lower-lying Oxford Clay. The development site is marked in blue.

The whole of the area on the East Side of the private section of Yarnells Hill is clearly a part of this system, as it occupies the top of the hillside, separated higher up by a layer of limestone (yellow on the map) from the sandstone level (pink) from which natural springs emerge where it meets Oxford Clay (green). The development site rests directly on the sandstone layer, and sits directly above the Long South West Fen containing the stream feeding the main fen. The Drainage report accepts that “the topography is such that any runoff from site will find its way to the habitats present in Raleigh Park”.



(C) British Geological Survey

Our catchment area map, showing contours, makes the significance of the development site clear. The dark green area is the Raleigh Park catchment area; the light green area to the west of it is the catchment for the Louie Memorial Fields and the Louie Memorial Copse, another area whose water supply needs to be protected.



Raleigh Park Catchment Area (Dr D.R. Brown)

The hydrology is also confirmed by the [Groundwater Risk Assessment](#) report compiled for North Hinksey Parish Council in 2017. (This report, which focuses on groundwater rather than ecology, shows that the development site is not a flood risk, because the depth of the permeable layers between it and the Oxford Clay is sufficient to ensure that there is limited retention of surface groundwater, which normally drains into the aquifer feeding the Park springs and wetlands.)

In ecological terms the site is an extension of the Park, as was concluded by Wildlife Officers assessing development plans for the previous application for this site (P17/V1862/O). The development abuts the Park on two sides, and sits directly above the Long South West Fen containing the stream feeding the main fen. The Drainage report accepts that “the topography is such that any runoff from site will find its way to the habitats present in Raleigh Park”.

2. Documentation

The Ecological Report accompanying the proposal makes token reference to Raleigh Park as a Local Wildlife site and to the proposal for extension of the Local Wildlife Site area to include the Long South West Fen, but otherwise fails to engage in any way with the established habitat management scheme for the Park and the stakeholdership of the Friends of Raleigh Park (FRP) , BBOWT, and Oxford City Council. The consultants have not used any of the materials publicly accessible on the FRP and BBOWT websites. The Long South West Fen stream is dismissively described in the ecological report as “a stream [...] heavily shaded and in most places silted with extensive rotting vegetation”. It is not clear whether the ecologists even realise that this area is the “Raleigh Park Proposed Extension” included in their table of designated sites, as “on the Eastern border of the site”.

The Drainage report shows a much greater awareness of the impact of the site on the Park,

changes in groundwater regime at the development site, as a result of increased runoff from impermeable development for example, have the potential to impact the supply of groundwater at the Raleigh Park springs

but is based on outdated maps which show the pond and watercourses fed entirely by springs inside the publicly accessible Park, and so initially considers the stream in the Long South West Fen as a separate watercourse.

two unnamed watercourses are present in Raleigh Park approximately 125m to the east and a small watercourse runs west to east due south of the site..

It later refers to the Long South West Fen as a ditch which " flows into the springs to the south east". It is unaware of the importance of the calcareous fen areas adjacent to the site and directly fed by the stream, referring only to the need to protect invertebrate species.

These application papers continue to repeat the false claim that there has been productive consultation with FRP, OCC and BBOWT: this claim was made in the 2017 papers and was comprehensively rebutted by the parties concerned. This lack of engagement has been abetted by the mechanical processes of the planning authorities, who have not updated their list of consultees to include these stakeholders, to whom the Freshwater Habitats Trust and Dr Judith Webb (BBOWT consulting ecologist) should now be added.

We must note that the proposals and investigations show little regard for the interests and rights of owners and stakeholders. The proposal to discharge runoff water directly into the Long South West Fen stream has not been discussed with Oxford City Council who are trustee of the land involved. An eDNA investigation of the Raleigh Park Pond to exclude the possibility of Great Crested Newts was conducted apparently without permission from OCC or consultation with FHT. A more recent investigation by FHT is pending, and may overturn this conclusion, given the return of other species such as grass snakes to the Park.

The Planning Document for this proposal, submitted at the very end of the consultation period, claims that the site adjoins the Western border of Raleigh Park, ignoring the fact that also adjoins the Long South West Fen (now referred to as a "brook") to the South. It repeats the claims that there will be no hydrogeological effect on the Park, and that there will be a net increase in biodiversity. It states that there have been discussions with "OCC", which must refer to Oxfordshire County Council as Highways Authority, and not Oxford City Council as trustee of Raleigh Park.

3. Inappropriate development for an overdeveloped area

This proposal is to construct three ample urban dwellings in a greenfield site which has until now been left in its wild state. This is excessive for this site and the neighbourhood, which already sustains many large domestic houses. A neighbouring house (Little Dene) has been replaced by a large block of apartments. Redevelopment proposals have been submitted for two other houses in this area: 69 Yarnells Hill (a proposal for five houses replacing a single dwelling, withdrawn) and Sweetmans Cottage (replacement of a single house with a specially designed eco house, provisionally accepted). In her submission to the most recent proposals for 69 Yarnells Hill Dr Judith Webb recommended that no more than one house should be built on the site; this should be the basis of a general planning principle that the redevelopment of plots containing a single dwelling in this area should not contemplate more than a single replacement dwelling. This development cannot even point to an existing dwelling: the land was historically associated with the nearby property of South Hayes, which has been extended in various ways, so that it can be argued that the development potential of the area is exhausted.

4. Hydrological damage to Wetland Water Quality

The effect of this intensive development will be to replace an extensive area of grassland with building foundations and paved areas. Of the total site area of 0.95 hectares, 14% (0.136 ha) will be occupied by houses, garages, paved areas and the access road. Purchasers of the houses will be at liberty to pave over additional areas of the garden spaces. The development will undoubtedly interfere with the passage of rainwater to the aquifer supplying the fen and to the functioning of the Long South West Fen stream as principal water supply to the fen. It

will also introduce a significant element of contamination and pollution of the water supply, from the introduction of domestic sewerage systems and the introduction of nitrate rich mains water into the mix of water entering the hydrological system.

The three houses will be three-storey constructions with the lowest floors set into the ground to accommodate them to the slope. These buildings will require deep foundations which may well interfere with the permeable layers supplying the aquifer: no estimation of required foundation depth has been made, and there is no detailed investigation of the local geology apart from a token desk exercise based on BGS mapping. The optimistic statement in the Drainage report that the foundations are unlikely to interfere with hydrology (4.3 “The foundations of the buildings are likely to sit above the groundwater level, so the development itself is unlikely to impede groundwater movement in and around the site”) is thus no more than a pious hope. Indeed the trial pits dug as part of the investigation into possible surface water solutions (Appendix F) suggest that groundwater is much closer to the surface than the geological maps suggest.

The development as planned would significantly impede the direct passage of rainwater into the soil (and thence to the aquifer) and stream. This reduction in the surface water catchment area will affect the groundwater recharge of the Fen and potentially lead to drying out, especially in the increasingly hotter summers and with unpredictable rainfall patterns due to climate change. The developers calculate that the site accounts for a small percentage of their estimate of a 0.95 km² total catchment area for the aquifer. This purely quantitative response totally fails to recognise the unique position of the site in relation to the Raleigh Park fen hydrological system. The site occupies the area immediately above the Long South West Fen stream, and so will drain directly into it not only by permeation through the aquifer but also by direct surface runoff.

The developers are aware of this risk, and have proposed a specific solution to mitigate it, a substantial SUD in the form of a retention pond which will collect water from the built areas, through pipes installed beside other utilities beneath the access road, discharging at a controlled flow rate into the Long South West Fen watercourse. The proposal is insufficient and unacceptable. No detail is provided as to how ground water enters the pipework system. An extensive system of storm drains or soakaway pipework would need to be incorporated into the groundwork, and is unlikely to be able to capture all surface water. It will also be ecologically unacceptable, as the direct piping of water into the stream, however well controlled and filtered, will necessarily disrupt the natural supply of water: the retention pond aims to collect into a small area a substantial proportion of all the surface water, to be discharged by a single outflow, which cannot possibly replicate the normal passage of surface water. Extreme rainwater events (such as the occurrence of a month's average rainfall in a day) have become quite common; even if the pond itself does not overflow, the excess flows resulting from such events are likely to damage the fabric and ecology of the watercourse, by scouring and erosion.

There is also a conflict between this system and the grey water system mooted by the Design and Access Statement but not detailed in any technical documents. A grey water system which reuses spoiled mains water for garden irrigation will be returning water polluted by nitrates and surfactants into the soil, instead of sending it into public water treatment facilities. A system which captures rainwater for these uses will be diverting rainwater into the sewerage system. Either way the benefits of this system for reduction in water consumption will have potential negative ecological consequences.

The proposal to pump sewerage into the public mains sewer, replacing a proposal for a septic tank located immediately above the Long South West Fen, is not unproblematic. The water quality in the Park has already been compromised by leaks from sewerage systems in neighbouring properties. The pumping station, located lower down the slope from all the properties and close to the runoff collection pipework handling surface water, will concentrate the risk of leakage into the ground above the Long South West Fen stream.

5 Wildlife and biodiversity

There is extensive passage of wildlife (including deer and badgers) from Raleigh Park to neighbouring green spaces through this area of Yarnells Hill, which will be compromised by this development. In addition the site includes a major badger colony close to the which will be completely disrupted by the development. The ecological report recognises the presence of this main sett, while attempting to minimize its importance. The token onsite investigation in March 2020 needs to be confirmed by monitoring and consultation with the local Badger Group who have collected detailed information in preparation for their programme of TB vaccination. Their submission will confirm that this is not only an active sett but the main sett for the Raleigh Park area, following the destruction of another sett by a recent redevelopment close by. The proposal to relocate the sett - hidden in confidential papers - is inappropriate and impractical, and cannot be justified as a permitted exception to protected species legislation. For this reason alone the proposal should be rejected.

Intensive development and the erection of multiple internal garden fences will significantly disrupt wildlife movements, to the detriment of the Park as a wildlife habitat.

The Plans include measures to increase biodiversity in the retained grassland, by wildflower planting, tree planting, bird boxes etc. While these are all welcome, and minimally address the loss of trees elsewhere on the site, they risk interfering with the habitat management and scientific studies of biodiversity currently taking place on the fen area of the park immediately abutting the Eastern boundary of the site. The technical increase in biodiversity of a limited type will in no way offset the damage caused to the fen. It is essential that any habitat management of this type should be coordinated with the bodies responsible for Raleigh Park. The recommendation for the removal of Himalayan balsam is welcome, but also needs to be coordinated with the eradication of this invader from the adjacent areas of the Park.

6. Conclusion.

The proposals for this unnecessarily intensive development will have significant impacts on the Park:

- The impact of development on this site will be greater than that of any other comparably sized plot.
- The rare and precarious nature of the fen means that it will be disproportionately affected by changes to the water supply.
- The replacement of a greenfield catchment with a highly developed suburban area will inevitably modify the nature and quality of ground water.
- The destruction by relocation of a major badger sett will be a massive disruption to a protected species, in addition to disruption of wildlife corridors.

The development should be rejected, and the rejection should be enshrined in a general planning embargo on any further development of grassland and garden land in the immediate environs of Raleigh Park,

Stephen Parkinson
Chair, Friends of Raleigh Park
www.raleighpark.org.uk
raleighpark@raleighpark.org.uk

13.10.20