



DESIGN AND ACCESS STATEMENT
FULL PLANNING FOR THE INSTALLTION OF A GROUND
SOURCE HEAT PUMP AND ASSOCIATED INFRASTRUCTURE

AT BILSHAM FARM, BILSHAM LANE, PILNING, BRISTOL, BS35 4HD

Libby Barron MRICS FAAV

WEBBPATON | THE DAIRY, HOOK, ROYAL WOOTTON BASSETT, WILTSHIRE

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1 INTRODUCTION

- 1.1 This full planning application has been submitted to seek permission for the installation of a ground source heat pump at Bilsham Farm, Pilning, BS35 4HD. My client seeks to install a ground source heat pump in order to supply a sustainable and green source of energy to provide space heating and hot water to approximately **seven** residential properties present at Bilsham Farm.

- 1.2 The ground source heat pump will utilise a system of horizontal heat collectors, circulating a solution of water and glycol around a network of pipework which travels underground. The temperature underground is more constant throughout the year than the air temperature at the surface and this means that, during the colder months of the year, the ground temperature is warmer than the surface air temperature. Heat pump efficiency is a product of the difference between its heat source (the ground) and the heat use (the heating or hot water system). By using the warmth of the earth as the heat source, a ground source heat pump provides heating and hot water very efficiently.

- 1.3 A ground source heat pump is a green energy source and meets the sustainability policies which are seen throughout the National Planning Policy Framework (NPPF) and South Gloucestershire's local planning policy. Notably, a ground source heat pump reduces CO2 emissions, reduces energy bills, is not dependent on finite fossil fuels and can remain in place for 25 years plus.

- 1.4 This report has been written by Libby Barron MRICS FAAV of WebbPaton Rural Surveyors and Land Agents. We are acting on behalf of Mr K & Mrs M McEwen-Smith (the Owners) in respect of this full planning application to South Gloucestershire Council in relation to the installation of a ground source heat pump.

2 PLANNING POLICY

National Planning Policy Framework (NPPF)

- 2.1 The NPPF was revised and updated in 2019. It sets out the Governments Planning Policies for England and how they are expected to be applied.
- 2.2 Paragraph 7 is clear that the purpose of the planning system is to contribute to the achievement of sustainable development. Paragraph 8 sets out that the planning system has three overarching interrelated sustainable objectives, which are economic, social, and environmental.
- 2.3 As set out in paragraph 10, so that sustainable development is pursued in a positive way, at the heart of the NPPF is a presumption in favour of sustainable development.
- 2.4 Paragraph 11 is clear that for decision taking this means approving development proposals that accord with an up to date Development Plan without delay.
- 2.5 Paragraph 38 is clear that decision makers at every level should seek to approve applications for sustainable development where possible.
- 2.6 Paragraph 148 sets out that the planning system should support the transition to a low carbon future in a changing climate, and it should help to support renewable and low carbon energy and associated infrastructure.
- 2.7 Paragraph 154 is clear that when determining planning applications for renewable and low carbon development, local planning authorities should:
- a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and
 - b) approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.

- 2.8. Policy CS3: Renewable and Low Carbon Energy Generation directly links with the proposed development. It states “Proposals for the generation of energy from renewable or low carbon sources, provided that the installation would not cause significant demonstrable harm to residential amenity, individually or cumulatively, will be supported”. It can be confirmed the proposed ground source heat pump would not cause harm to any residential amenity, as can be seen in the Proposals section of this report. A ground source heat pump, as confirmed by this policy, is a renewable/ low carbon source and therefore should be supported.
- 2.9 Policy CS4A: Presumption in favour of sustainable development states there is a presumption in favour of sustainable development, in line with national policy. The installation of a ground source heat pump is sustainable development, implementing a renewable/ green energy source. There will be no adverse impacts of granting this permission given the land will be returned to its original state once the ground source heat pump has been installed. Furthermore the plant operating this system are to be located in an existing outbuilding at Bilsham Farm.
- 2.10 Policy CS9: Managing the environment and heritage sets out the Council’s policy on how the environment and heritage should be protected. As can be noted in the proposals section of this report, this development will not cause detrimental impacts on the environment. We note the site lies within a flood zone benefitting from flood defences, and an appropriate flood impact assessment has been submitted alongside this application to mitigate against any risk posed. The environment instead will benefit from this development given this is a renewable/ green source of heat which does not cause pollution to the wider environment nor does it rely on finite fossil fuels.

Planning Considerations

- 2.11 Section 38(6) of the Planning and Compulsory Purchase Act 2004 and Section 70(2) of the Town and Country Planning Act 1990 require that applications for planning permissions to be determined in accordance with the Development Plan unless material considerations indicate otherwise.
- 2.12 The relevant planning policies and national planning policy and guidance have already been identified in the previous section, this section seeks to assess the proposal against those requirements.

Principle of Development

- 2.13 The ground source heat pumps will be installed to provide a renewable source of energy and to reduce carbon emissions at the site. The principle of development is established through both local plan policy core policy CS3 and NPPF paragraph 154.
- 2.14 Furthermore paragraph 154 of the NPPF and CS4A of the local plan is clear that when determining planning applications for renewable and low carbon development, local planning authorities should approve the application if its impacts are (or can be made) acceptable.

Other Material Considerations

- 2.15 In the context of NPPF paragraph 154 there are no material considerations or negative impacts that suggest planning permission should not be permitted. The associated plant for the ground source heat pump will be installed inside an existing building and the relevant horizontal heat collectors will be installed under the field shown in the site plan. Therefore once installed, there will be no landscape, amenity or wider design impacts caused. Planning permission should be granted without delay.

3 THE PROPOSALS

- 3.1 It is proposed to install a 60kw ground source heat pump at Bilsham Farm, Pilning, Bristol to provide space heating and hot water for the residential properties at Bilsham Farm. The technical details of this system can be seen in the NIBE F1345 Ground Source Heat Pump product information booklet submitted alongside this application.
- 3.2 The cabling required for the horizontal heat collectors, will be installed by digging trenches in the field outlined in red on the site plan. The cabling will not go outside of this area outlined in red. Once installed the trenches housing the cabling will be covered and the field reinstated to agricultural use. Given the land has always been down to permanent pasture, this land will not be cultivated and only grazed by livestock/ cut for forage in the future.
- 3.3 The pumps and other associated plant will be installed in an existing outbuilding at Bilsham Farm. Again this is outlined in red on the associated site plan. This outbuilding will not be changed or damaged in any way, the associated plant to run the ground source heat pump will be located inside this building as shown on the site plan.
- 3.4 Cables will run underground to feed from the horizontal heat collectors to the plant room and subsequently from the plant room to the approximate seven residential dwellings where heat spacing and hot water will be supplied.

CONSULTATION CONSIDERATIONS

- 3.5 **Highway Consideration** – There is existing established vehicular access on to and off of Bilsham Lane which will be used temporarily during the construction of the proposed development and thereafter for maintenance from time to time of the ground source heat pump and associated plant. This access is also the access for the residential properties at Bilsham Farm and has been well established.
- 3.6 **Contamination Risks** – The proposed site is not, and has not, ever been known to have been used for agro-chemical storage. There is no other contamination risks within the site to be developed and therefore there is no known contamination risk affecting the proposals.
- 3.7 **Flood Risks** – The site falls within Flood Zone 3 – an area with a high probability of flooding that benefits from flood defences. The presence of flood defences reduces the likelihood of a flood event affecting the area, which would otherwise be the case without the provision of flood defences. The site is situated approximately 1.5 miles (2.4 kilometres) from the River Severn and its associated flood defences.
- 3.8 Please refer to the flood risk assessment and the flood risk management and evacuation plan which accompanies this planning application. This outlines the flood risk for this property in in-depth detail and outlines the measures which will be taken to mitigate against the risk of a flood. Please note residential dwellings have been granted permission at Bilsham Farm, immediately adjoining the site of the ground source heat pump, based on this flood risk posing a potential risk. It has been proven the flood risk can be adequately mitigated against even when considering the presence of permanent residential dwellings onsite. Therefore we assume the installation of a ground source heat pump would not cause any further flood risk nor should it be prevented because it lies within a flood zone which benefits from flood defences.
- 3.9 Please note that there are six other residential properties at Bilsham Farm in the close proximity to the proposed development. As far as we are aware, there has never

been a history of flooding at Bilsham Farm and none of the residential properties present have been subject to flooding. Two of the dwellings are barn conversions and single storey in height.

- 3.10 **Landscaping and External Appearance** – Once the ground source heat pump and associated works have been installed and completed, there will be no change in the external appearance or landscape of the local area. No trees will be affected given no trees are on the site included within this application. The field where the cabling is to be located will revert back to agricultural use and the building where the associated plant is to be located will not change in any aspect externally. No visual impact will be caused.

4 CONCLUSION

- 4.1 The planning policy has been outlined in this report along with the planning considerations. There appears to be no reason why this application should not be granted when considering the current national and local planning policy, especially given the renewable/ green nature of this development.
- 4.2 The provisions proposed as part of this application are intended to minimise the impact that the proposed new ground source heat pump equipment has on the surrounding environment by way of its location. The provisions for access are to ensure safe access and working environment for servicing and maintenance.
- 4.3 Accordingly, it is considered that the proposed ground source heat pump unit with its plant room to be located in an existing building, will not have an adverse impact on the local visual amenity or a detrimental effect on the character and appearance of the area.