Proposed Development of Land at "Priory Gardens"

Lund Lane, Lundwood, Barnsley

Supplementary Planning Statement

including

Odour Report

May 2010

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On behalf of:-

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1.0 INTRODUCTION

1.1 This Report has been prepared on behalf of the landowner, Thornhill Heat Exchangers Limited, to support a planning application for the redevelopment of land at Lund Lane, Lundwood, Barnsley, presently containing a single bungalow "Priory Gardens". The site extends to 1 acre (0.47 hectares) or thereabouts. The proposed development will see the demolition of the bungalow and replacement with 9 no. semi-detached and town houses. The proposal makes better use of the land by increasing the housing density on previously developed land in accordance with sustainability principles.

1.2 The site is shown edged red on the plan at Appendix 1 and is located immediately to the north of the Lundwood Sewage Works. Lundwood sewage works is the largest sewage treatment plant in Barnsley and is operated by Yorkshire Water (YW). A previous application to redevelop the Priory Garden site was dismissed on appeal due to lack of information on the potential increase in sensitive receptors that would be affected by nuisance, or potential nuisance, from the sewage works.

1.3 Lundwood sewage works has been the source of complaints from local residents over a number of years, mainly on account of odour and flies (see table 1). However, the sewage works has been the subject of considerable recent investment to bring it up to the improved standards required by national and EU legislation.

1.4 Government policy and advice regarding development of land that is already polluted or is in the proximity of a source of pollution can be found in Planning Policy Guidance (PPS) 23 and in Defra's Code of Practice on Odour Nuisance from Sewage Treatment Works.

1.5 Local policy regarding development at sewage works is contained in the Unitary Development Plan (UDP) under ES2 which states that new development in the vicinity of sewage treatment works will not normally be permitted if the loss of amenity due to odours or other problems is unacceptable.

1.6 The applicant is of the opinion that such potential problems have been addressed and minimised to the extent that the site is now capable of beneficial redevelopment acceptable both to new residents and the regulators for the following reasons:

1. The improvement works have greatly reduced the capacity for nuisance.
2. The revised development layout will minimise the effects of wind from the south which could carry odours in the direction of the new dwellings.
3. Extensive landscaping works will raise the height of the air flow and reduce the speed of winds from the south.

1.7 The information herein is provided by Fennell Green & Bates, a Wakefield-based firm of Mining Engineers, Surveyors and Environmental Consultants with particular expertise in Minerals and Waste activities, advising a wide client base from both the private and public sector. The company prides itself on its sensitivity to environmental issues and its principals and staff are able to access up to date information and relevant training courses relating to new legislation in order to enable continued expert and professional advice to its clients.

2 DEVELOPMENT PROPOSAL

2.1 The proposal is to demolish the existing bungalow to make way for a new cul-de-sac off Lund Lane which would give access to the new development comprising a row of 5 town houses and 2 pairs of semi-detached houses (Site layout at Appendix 3). This redevelopment will make better use of the land by increasing the housing density from 1 to 9 dwellings per acre (23/hectare) which is closer to the Barnsley LDF target of 40. The limited number of dwellings is the result of restrictions due to proximity with existing housing around this infill site.

2.2 Site clearance would remove the cherry tree and holly trees around the existing bungalow and the fragmented hedges, but these are not considered to be of significant value and will be more than compensated for in the landscaping of the site (See Appendix 10). The groups of oak and silver birch along the southern boundary fronting Lund Lane, together with the group of large silver birch, will be retained and improved by further tree and shrub planting.
The retained trees and the additional planting will have two effects to help reduce odour:

- They will act as a shelter belt to reduce the rate of air flow.
- They will help to raise air currents to a higher level across the site.

The sporadic hawthorn hedge on the western boundary will also be retained and improved to form a feature along the new access road.

2.3 Prior to commencement of the development, the trees fronting Lund Lane will be fenced off In order that they are protected from damage by plant and machinery.

2.4 Following completion of the construction works, the site will be landscaped by planting trees and shrubs along the gaps fronting Lund Lane. Additional shrub planting will help to reduce the air flow through the trees. Similarly, trees will be planted in the improved hedgerow along the new access road and in the northern part of the site to supplement the existing trees. Indicative proposals are shown on the site plan but a landscaping scheme for the whole site will be submitted for approval.

2.5 The final details of the proposed houses will also be subject to approval but will be of approved facing brickwork with cast stone lintels and cills. Roofing material will comprise artificial stone slates in diminishing courses with matching ridges. Both house types consists of a 3 bedroom house with integral garage and the roof space capable of use as a studio or bedroom (Appendix 4).

2.6 The applicant has given much consideration to the potential for nuisance from the sewage works and is confident that such potential is now far lower than it was at the time of the previous application. Furthermore, this application turns the row of town houses through 90° so that it is only the side elevation of the first town house which faces directly towards the sewage works. There will be no opening windows on the southern elevation. Nevertheless, the developer will be asked to set up a ring-fenced fund to be used for installation of filtered ventilation systems (see 6.11 below) in the houses in the event that odour problems arise in the future.

2.7 The Environment Agency's web site indicates that the site is outside the flood risk zone created by the River Dearne (Plan at Appendix 8).

3 HOUSING DEVELOPMENT IN BARNSLEY[1]

DEVELOPMENT RATE

3.1 Following a period of high housing building rate, 2008-9 saw a fall in the number of new dwellings built in Barnsley, with 1096 completions compared to 1499 in 2007-8. High levels of demolitions within the Borough meant that there was a net increase of only 860 dwellings compared to 1154 the previous year. The high level of demolitions relate to clearances for new housing meaning that net increase figures are artificially low as the replacement dwellings have not yet been built.

3.2 Prior to the downturn, the Regional Spatial Strategy (RSS) set new targets of 1015 new homes per annum. Additionally, Barnsley has been awarded growth point status which means that for the period to 2016, the annual target will be increased by a further 203 homes per annum to 1218 dwellings.

HOUSING REQUIREMENTS AND DELIVERY

3.3 The LDF Core Strategy includes provision for some 21,500 new homes (net) for the period 2008/9 to 2026/7. This is based on meeting the yearly (RSS) target of 1015 new homes throughout the 18 year plan period (total of 18,270 new homes) supplemented by the Barnsley MBC commitment to 21% uplift of the RSS target for some 8 years (additional 1704 new homes to give 19974 total) and modest allowance for additional growth to 21,500.

HOUSING LAND SUPPLY

3.4 To meet the overall current target, 20,614 (net) new dwellings will be needed to be provided between 2009/10 and 2026/7. Planning Policy Statement (PPS)3 Housing requires the Council to demonstrate by way of a:

5 year housing supply note, and

Strategic Housing Land Availability Assessment (SHLAA)

that there are sufficient sites to deliver housing targets both in the short term (5 years supply) and also over the long term (SHLAA).

It is impossible to estimate how much land will be required since it cannot be estimated how many "windfall" sites will become available and also demolitions are taken into account. It is assumed that where one dwelling is demolished it will be replaced by one new dwelling. Taking into account the number of dwellings under construction, the number of dwellings with full or outline permission and the capacity for dwellings on UDP allocations, there is space for another 2199 dwellings on currently proposed LDF housing sites. This leaves a shortfall of 6328 dwellings. There is capacity for 9957 dwellings on safeguarded land which might come forward under the SHLAA.

5 YEAR SUPPLY 2009-14

3.5 In summary, the 5 Year housing supply note shows some 1063 homes under construction; 6208 homes on sites with full or outline permission, and capacity for 1932 homes on remaining UDP housing allocations i.e. total supply of 9203. The note

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[1] Combining information from the Barnsley Annual Monitoring Reviews 2008 & 2009

shows this figure discounted to 7421 to take account of site size and planning status. This compares with a target for the period of 6140 homes based on the RSS +21% uplift, or 5315 homes for the 2009-2014 period

SHLAA

3.6 The published SHLAA identified sites for some 21,290 homes (net) which compares to a requirement of 19,974 (RSS+21% uplift for 8 years).

HOUSE BUILDING TYPE

3.7 The general trend of types of dwellings reversed during 2007-8. There was a general decline in building detached and semi-detached compared with an increase in flats and apartments. Houses built continued to grow while the number of bungalows built remained fairly static. However, 2008-9 saw the first decline in the number of terrace/town houses being built since records started in 2003-3, with all types of dwelling except flats also showing decline.

BROWNFIELD SITES

3.8 The basic facts regarding the use of previously developed "brownfield" sites are as follows:

National target 60%
Regional target for Barnsley 49%
In 2000-2001 only 44% of Barnsley's new housing was on previously developed land.
By 2002-2003 Barnsley was exceeding the regional target.
By 2007-2008 76% of new dwellings were on previously developed land.

ANALYSIS OF PREVIOUSLY DEVELOPED LAND

3.9 Development by house type over the last five years shows large differences in the PDL/Greenfield split with detached and semi-detached houses far more likely to be built on Greenfield land than flats, terraced and town houses or bungalows. Changing house types has affected the size of properties with the average number of bedrooms falling from 3.2 in 2002-2003 to 2.7 in 2007-2008.

HOUSING DENSITY

3.10 The LDF target rate is 40 dwellings per hectare. The implementation of planning guidance has resulted in densities of 69.1 by 2008-9.
The proposed development density is equivalent to 23/hectare but this is limited by the constraints due to existing housing around the site.

ALLOCATED SITES

3.11 There has been a big drop in the percentage of completions being built on sites allocated for housing with only 13% of completions falling onto such land in 2007- 2008, compared with 46% in 2002-2003. This has occurred due to the rise in housing development on windfall sites which account for 84.5% of all completions in 2008-9, compared with 42% in 2002-2003.

Clearly, housing development in Barnsley is highly reliant upon windfall sites.

4 LUNDWOOD STW

4.1 The majority of the urban sewerage systems used today date back to the mid- to late-nineteenth century. Minimising the effects of odour was originally done by siting sewage treatment works well away from homes and workplaces. However, with increased urbanisation and housing expansion, these sewage works, which were once remote, have now been encroached upon. This has created problems for the industry, the government and the regulators, but the sewage industry has continued to make efforts to reduce, manage and abate the effects of nuisance from sewage.

4.2 Odours are ever present in the air but the concentrations of malodours caused by sewage treatment works cause concern for occupational and public health and safety since they can be inhaled by site operatives and can travel off-site to surrounding inhabitants. The characteristics of the odour are very important. At one extreme, almost all receptors could be expected to find a strong odour of sewage sludge to be both objectionable and offensive, even with fairly regular exposure for short periods. The concentrations at which these odours become a statutory nuisance could be relatively low if they are persistent and frequent. However, short-term exposure to these offensive odours might be less likely to be considered a statutory nuisance.[2]

4.3 The water industry has undertaken various research projects into the causes of odours and how they can be controlled or abated. These projects have highlighted the subjectivity of odour problems and linkage to nuisance as defined in legislation and regulations in the UK (Environmental Protection Act 1990 & Environment Act 1991). The most recent attempts to deal with the problems associated with sewage treatment began about 6 years ago with Defra undertaking a consultation on how to manage and control odours and other nuisance from treatment works. Among other issues considered as part of the consultation, a voluntary Code of Practice was adopted in 2006.

4.4 Currently, there is no single method of odour measurement adequate for all odours emanating from sewage treatment works although a major source of malodour is hydrogen sulphide. Measurements therefore need to be linked to site specific risk assessments, for a pragmatic prognosis of odour problems and related remedial measures. Indeed the composition of raw sewage coming into any works will vary over time. This means that whatever method of odour measurement is adopted, there will always be the residual risk of odour nuisance complaints, even if the threshold of odour parameters adopted is not exceeded.

4.5 Consequent to the voluntary Code, in June 2006, YW awarded a contract to Water Innovate to carry out odour survey and modelling work at the Lundwood sewage treatment works in order to assess the impact of the planned upgrade works using their ODOURsim® methodology. Direct contract has been made with YW regarding the proposed development and their response can be found at Appendix 5. YW acknowledge that improvements have been made but their opposition to any development is maintained. While the raw data produced by the ODOURsim® exercise is unavailable, a copy of a comparable case study is attached in Appendix 6.

4.6 In order to comply with EU legislation to improve air quality by 2010, YW is spending £247 million through the period 2005-10 regionally and £15 million in Barnsley. The Lundwood works itself has been the subject of £7.7 million expenditure to improve its

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[2] defra Odour Guidance for Local Authorities 2010

operation and reduce odour emissions. Among the many measures undertaken is the construction of a galvanised steel building to house new sewage sludge treatment equipment. The majority of these works were carried out under permitted development rights. However, a planning application by Yorkshire Water gave the reasons for some of the works "to meet part III of the Code of Practice on Odour Nuisance from Sewage Treatment Works and to protect existing and future occupiers of neighbouring land and premises from odour."

4.7 Further expenditure was announced by YW at the end of March 2010, included in which is £100 million "to reduce the number of sewer flooding incidents and to protect sewage treatment works from extreme weather".

4.8 A further recent, innovative means of odour reduction has been by utilising sewage gas as fuel for generating electricity under a combined heat and power regime. Sewage gas contains between 50-80% methane and is a consistent fuel source because it depends on biological decay. Lundwood Sewage works has an accredited Renewable Obligation Certificate (ROC) enabling YW to take advantage of the carbon credits being made available from government sources which further encourage the use of renewable sources of energy.

4.9 Government policy and advice on development of land in the proximity of potential sources of pollution can be found in Planning Policy Guidance (PPS) 23. Section 11 says: "Pollution issues should be taken into account as appropriate in planning decisions (having regard to the relevant plan documents and all material considerations). Where, for example, new housing is proposed close to a source of potential pollution, the risk of pollution from the normal operation of the process or the potential impacts and the extent to which the proposals address such risks will influence whether or not development should proceed, as will the availability of sewage and drainage infrastructure."

The Appendix to PPS23 further states "The need to separate necessary but potentially polluting and other land uses (recognising the potential conflict with sustainable development over mixed-use developments) so as to reduce conflicts, for example by identifying where necessary areas around existing sources of pollution (including roads) in which proposed new development and uses should be carefully considered in terms of their potential as pollution receptors."

4.10 Government policy in the form of Defra's Code of Practice on Odour Nuisance form Sewage Treatment Works (2006), Section 3.3 looking at planning control and amenity states: "There is the issue of proposed or actual development close to sewage works (often termed "encroachment"). PPS23 states that local planning authorities need to consider carefully the proximity and location of existing developments, such as sewage treatment works, when drawing up plans for new development. Such development may be affected by odour from the works and a statutory nuisance created where it did not exist before.

The guidance given in PPS23 appears to be aimed at the local authority's development plan stage in steering new development away from problematical areas. The fact is that the application site is already in residential use and is not a new allocation. It is admitted that allowing the redevelopment will increase the number of potential complainants, but the potential for complaints will have been reduced due to the improvement works and can be further mitigated by landscaping and other measures referred to in 2.3 above.

Encroachment of odour-sensitive development around sewage treatment works can lead to significant problems, and the existing sewage treatment works becoming subject to

complaints. At the same time, people in the area who may be affected by statutory odour nuisance need protecting by their local authority whose responsibility it is to enforce the abatement of statutory nuisances. The operational and complaints history of a sewage treatment works and other potential odour issues should be carefully considered by planning authorities before permitting new developments in the immediate vicinity.

4.11 Barnsley MBC policy regarding development near sewage works can be found in the UDP at ES2 which states that new development in the vicinity of sewage treatment works will not normally be permitted if, in the opinion of the Council, after consultation with the sewerage undertaker, it would result in the occupiers of affected property being exposed to an unacceptable loss of amenity caused by odours or other problems associated with sewage treatment. The UDP is in the process of being replaced by new policies within the Local Development Framework (LDF). In the transitional phase, policies in the UDP were either saved or allowed to lapse. Policy ES2 has been saved and therefore remains relevant.

4.12 The actual numbers of complaints to the local authority against the Lundwood works are set out in the table below. This local data and national statistics (see section 5 below) suggest a trend of reduction in the number of nuisance incidents and consequent complaints. It seems logical that the level of expenditure on improvements nationally, regionally and locally is having the desired effect. The Planning Inspector for the previous appeal (see 6.2 below) was aware that the sewage works was being improved, but felt there was no certainty that this work was likely to have any beneficial effect with respect to the residential amenity.

If this turned out to be the case, there would have been little point in the investment.

Table 1: Complaints to local authority

YEAR	TOTAL	ODOUR	FLIES	NOISE	PUBLIC HEALTH
2005	7	-	2	-	-
2006	10	5	3	1	1
2007	6	3	1	1	1
2008	8	1	5	1	1
2009	1	1	-	-	-

"Yorkshire Water now operates an activated sludge process at the works and this has improved odour control on the main part of the site."

source: Barnsley MBC Regulatory Service 10/03/2009

4.13 The above 2008 reference to flies is centred upon a serious incident during a warm, sunny period in May 2008 which occurred during maintenance work at the sewage works which YW said could have allowed more flies than usual to escape. YW undertook spraying the worst affected areas and claimed that the fly numbers should drop dramatically as a result. It is reasonable to expect YW to undertake regular spraying of insecticide at appropriate times in order to minimise the nuisance in accordance with "best practical means".

4.14 The single 2009 odour complaint was made on 14 April relating to a "very bad odour" over the Easter weekend. When the investigating officer attended there was no odour so

no action was taken, therefore it was not known whether the complaint was justified (source: BMBC Senior Environmental Health Officer).

415 With regard to the potential problem of odour and the likelihood of the development proposal creating additional sensitive receptors, the relationship between the sewage works and the site means that the incidence of wind blowing from the south and thus directly towards the site is 3.5%[3] (See winf rose at Appendix 7). In other words, there is potential for odour emissions to be driven into the new development on 12-13 days each year or 1 day per month, should both a southerly wind and fugitive emissions coincide.

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[3] Met Office Wind Rose for Bingley (Appendix 7)

5 POLLUTION OF AIR AND WATER - NATIONAL OVERVIEW

5.1 The UK National Air Quality Strategy sets out national air quality standards for individual pollutants and objectives for their achievement. Even when these targets are met there will still be some days of moderate or high air pollution. Air quality assessment is mainly undertaken by local authorities. This assess the amount of four main pollutants in the air - sulphur dioxide; nitrogen dioxides; ammonia; and non-methane volatile organic compounds. The latest data shows that since 1990, there have been decreases of 23% for ammonia; 49% for nitrogen oxides; 63% for NMVOC; and 86% for sulphur dioxide. 2009 has seen a general improvement in air quality measures compared to 2008.[4]

Emission of the pollutants are controlled by regulation and by the use of cleaner technologies and fuels. The Government currently has in place several initiatives on air quality. The Integrated Pollution Prevention and Control (IPPC) aims to achieve a high level of protection of the environment, in particular by preventing or reducing emissions into the air, water and land.

When a pollution incident is reported, the Environment Agency tries to find out where the pollution came from and who is responsible. The most frequent polluters are the waste management industry and the sewage and water industry.

POLLUTION SOURCES

5.2 Between 2006-7 the number of serious pollution incidents (category 1 & 2) decreased for nearly every sector, including the sectors regulated by the EA. Between 2005-6, serious pollution incidents by the waste sector were the lowest on record, having decreased by nearly 18%. However, serious incidents increased from 124 to 159 in 2007. The waste sector caused 19% of serious incidents.

POLLUTANTS

5.3 In 2007, sewage was the most common pollutant, found in 15% of serious incidents. This is not surprising given that the sewage water industry caused the most incidents. Also common were waste materials, namely asbestos, household rubbish and vehicle parts.

AIR POLLUTION INCIDENTS

5.4 In 2007, there were 151 pollution incidents that had a serious impact on air quality. This is a 6.2% decrease on 2006.

The waste industry caused two-thirds of all serious (category 1 & 2) pollution incidents that affected air quality in 2007. Most of these related to landfill sites and composting facilities. Generally, the number of air pollution incidents has decreased since 2002.

The latest statistical release from Defra in December 2009 indicates that air pollution continued to fall during 2008. Although details regarding hydrogen sulphide are not gathered, a key air pollutant is ammonia (mainly associated with agricultural emissions) which continues a downward trend.

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[4] defra UK Emissions of Air Pollutants 2008 Results

WATER POLLUTION INCIDENTS

5.5 In 2007, there were 522 pollution incidents that had a serious impact on water quality. This is 14% less than in 2006 and the lowest number on record. The sewage water industry caused 19% of serious (category 1 & 2) water pollution incidents. Farming and other industry caused 12% and 42% respectively. The EA were unable to find the source of pollution for 24% of serious incidents. Sewage was the main pollutant to affect water quality in these incidents, mainly as a result of sewers overflowing, pipe failures, or where control measures had not worked. The EA also found diesel fuel from a range of sources and farm slurry.

6 MITIGATION

6.1 For the risks in which the atmosphere provides the pathway, meteorological conditions will affect the dispersion rate, particularly with respect to bio-aerosols, odour and dust. For the purposes of this Report, assumptions have been made in respect of the effect of the local topography on wind speed and any Information relating to wind speeds and direction has been obtained from wind rose for Bingley (NGR 4088E 4350N – Source: Met. Office).

6.2 The following section looks at the specific odour hazard which is achieved by fulfilling the following objectives:-
Identify the location and nature of the hazard.
Identify any specific receptors potentially at risk
Identify management and monitoring techniques to minimise risk of nuisance.
Provide recommendations for more detailed assessments.

6.3 The relationship between the site and the sewage works is such that odours are present from the operation of the sewage works and many other background sources (see below) including:
Nearby land used for grazing livestock, including cattle and horses
Vehicles using Lund Lane and other parts of the surrounding highway network
Nearby activities of an "industrial" nature such as the vehicle dismantling yard
Domestic activities from surrounding homes.

6.4 Measuring smells normally relies on the human nose as a detector and is known as 'olfactometry'. As an example, agricultural odours are caused by a large number of chemical compounds but no single compound has been identified which can be measured and used to assess odour. Background odour concentrations measured in rural areas are typically 30 odour units per m^3 and there are few, if any, situations where farm odour at source are more than 5,000 units/m^3 air, whereas industrial odours may have to be diluted over a million times to reach the odour threshold value.

BACKGROUND LEVELS and MONITORING

6.5 The Environment Agency and Local Authorities regulate certain industrial processes as required by the Environmental Protection Act 1990 and the Pollution Prevention & Control Act 1999. Assessment and control of air pollution involves a multi-disciplinary approach and air quality monitoring is undertaken by both the Environment Agency and Local Authorities. The Government's National Air Quality Strategy represents a comprehensive approach to maintaining and improving the quality of ambient air and outlines air quality objectives for pollutants of most concern.

These pollutants are:

Fine Particles (or PM10 Particulates) which are of the greatest concern since they are capable of being transported over long distances on air currents.

Nitrogen dioxide (NO2) which is one of a number of nitrogen oxides that is mainly produced by traffic and industrial combustion processes.

Ozone (O3) which, despite forming a protective layer in the atmosphere, is potentially toxic to plants and animals. The slow generation of ozone allows it to travel considerable distances and many incidents experienced here are the result of ozone pollution from abroad.

Sulphur dioxide (SO2) which is a corrosive acid gas and when combined with water forms acid rain. This pollutant is associated with bronchial ill health as well as damage to vegetation, soil, water and buildings. It was particularly prevalent in coalfield areas although ambient levels have considerably reduced due to less fossil fuel burning.

Carbon Monoxide (CO) is also a product of combustion of fossil fuels, vehicle engines and also from smoking. It is the most dangerous pollutant gas and can cause death in high concentrations.

6.6 The Air Quality (England) Regulations 2000 now includes benzene; and 1, 3 – butadiene; lead; nitrogen dioxide; PM10 and sulphur dioxide on the pollutant list and sets out the objectives. This can be found at Appendix 1.

6.7 Air quality is assessed by monitoring from a network of more than one hundred monitoring stations throughout the country. In addition, air quality experts undertake computer modelling of present and future air quality by applying emission levels and weather data. This work enables predictions to be made on the amount of reduction required to meet the Government's air quality standards.

Local Authority monitoring is required under the Environment Act 1995 to periodically assess local air quality with specific reference to the seven airborne pollutants listed above. If this monitoring demonstrates that air quality standards are to be exceeded, then an Air Quality Management Action Plan is put in place in order to reduce pollution to an acceptable level. Government guidance is followed to ensure consistency and fairness.

6.8 The air quality in the UK has improved dramatically since the introduction of the Clean Air Acts in the 1950s and 60s which limited the burning of coal and regulated industrial emissions. Improvements in motor vehicles have also made a major contribution to cleaner air. To illustrate this, Appendix 2 reproduces the results of national monitoring from the Environment Agency website. Despite these improvements, there is still concern with current air quality, hence the introduction of the more recent legislation referred to above.

6.9 The measures to improve emissions from the sewage works will take time to be evaluated but the available information indicates good progress. So far this year, there have been no complaints.

6.10 It should be noted that although odours from sewage works are unpleasant, there is no evidence that they are harmful (see 8.1 below).

6.11 Reference has been made to the possibility of installing a filtered ventilation system in the event that odours become a nuisance. A combination of sealed windows and mechanical ventilation is an acknowledged method of reducing noise pollution which could also prove successful in the case of odour. Given the surroundings, the occupiers of the development would have more opportunity to avoid smells than would the residents of older properties in the area.

7 PREVIOUS APPLICATION FOR REDEVELOPMENT

7.1 The site was the subject of an application for development as follows:

Barnsley MBC Application Ref: 2006/0764

Proposal: Demolition of existing bungalow and erection of 12 no. dwellings and formation of new access road to highway (outline)
At: Priory Gardens, Lund Lane, Lundwood, Barnsley S71 5PE

Permission is refused for the proposals which were the subject of the Application and Plans registered by the Council on 03 May 2006 and described above.

The reason(s) for the Council's decision to refuse planning permission is/are:

1 Despite requests for additional information the applicant has not submitted sufficient details to enable an accurate assessment to be made of the possible adverse effect of the adjacent sewage works on the amenity of future occupants of the properties. The proposals are therefore contrary to policy ES2 of the Unitary Development Plan.

Dated 22 August 2006

7.2 The applicant subsequently lodged an appeal against that decision:

APP/R4408/A/07/2037667
Site visit made on 06 June 2007
Decision:

1 Appeal dismissed

The Inspector dismissed the Appeal by a notice served on 11 June 2007 citing 7 reasons:

2 Policy ES2 of the Barnsley UDP specifically seeks to restrict new development in the vicinity of sewage treatment works where this would result in future occupiers facing unacceptable exposure to odours and other problems associated with sewage treatment.

3 Both Yorkshire Water and the Council are aware of complaints from existing residents in the vicinity of the Lundwood sewage works relating to odours and the population of flies. These problems are judged to be sufficient to prevent the development of the appeal site which is located on the opposite side of the road from the sewage works.

4 The appellant acknowledges that there may be extant complaints but refers to the achievement of 'Best Practicable Means' and the need for the water authority to achieve this. If Best Practicable Means are shown to be in operation, he considers that any odour or other problems should not be a reason to reject this planning appeal. If Best Practicable Means are not in operation, he considers that the Council has the power to enforce.

5 It may be that Best Practicable Means is relevant in relation to action in respect of extant complaints. However, this does not indicate that the possibility of generating

future complaints should be set aside simply because any problems that may exist, arise even though Best Practicable Means are likely to be or have been adopted. I consider that if there is a reasonable likelihood of justified complaint arising as a result of placing new development close to the sewage works (even if it can be shown to have adopted Best Practicable Means) then, in the light of policy ES2, there is likely to be good reason to reject that development.

6 *In the current case I accept that there are houses that are equally near to the sewage works as the ones that are now proposed. However, while there may be limits on any remedy those existing occupiers can expect to obtain in relation to any complaints they may generate, this does not justify duplicating that situation when considering the acceptability of new development in relation to loss of amenity arising from its proximity to the sewage works.*

7 *Here we have a significant operational sewage works and an acknowledged risk that is likely to affect the amenity of future residents as a result of odours and fly populations to the point that complaint is likely. UDP policy suggests that applications for residential development should be resisted in such circumstances. I am aware that the sewage works is currently being improved, but there is no certainty that this work is likely to have any beneficial effect with respect to the residential amenity.*

8 *I accept that the land appears otherwise suitable for development and that this would be otherwise beneficial in terms of making efficient use of land in an existing residential environment. However, this does not overcome the current limitations that are imposed by the proximity of this particular sewage works.*

8 COMPARABLE CASES ALLOWED ON APPEAL

8.1 Torridge, Devon 16/06/04 DCS 038-903-265

5 dwellings proposed adjacent to sewage pumping station.
Appellant produced report that odour releases would not be harmful.
Although the experiences of local residents and elected members were relevant, these should not be used as substitutes for the technical and convincing evidence that no adverse health or amenity effects would arise.

8.2 Restormel Borough Council 05-00574 21/07/2005

Application by CMR Leisure to convert an existing building to hotel plus a leisure development comprising 60 holiday lodges across the site. There was an issue regarding an adjoining sewage works, the Menagwins, whereby there had been a recent abatement notice served against South West Water in relation to odour issue from the sewage works. The applicant made the following argument:
Application of planning policy. Section 54A of the Town & Country Planning Act 1990 and the guidance in paragraph 10 of PPS1 Delivering Sustainable Development confirms that in determining a planning application, the council shall determine an application in accordance with the provisions of the Development Plan unless material planning considerations indicate otherwise. Where there are other material considerations the Development Plan should be the starting point and other material considerations should be taken into account in reaching a decision.
The application accords with policies contained in the council's local plan. Although odour can be a material consideration in planning applications, there needs to be some discussion over whether the odour generating from the works is material to this application and what weight, if any, should be afforded in reaching the decision. When is a planning consideration material?

Alton MBC v Secretary of State for the Environment 1991 JPL241 confirms that the council must decide what weight to give to a material planning consideration. In addition, the following judgement by Cook J in Stringer v Minister of Housing & Local Government 1971 All ER65 at 77, is widely considered to be helpful. "In principle it seems to me that any consideration which relates to the use and development of land is capable of being a planning consideration. Whether a particular consideration falling within that broad class is material in any given case will depend upon the circumstances."

The applicant commissioned SLR Consulting Ltd to carry out an assessment of odour constraints relating to the proposed development. Evidence was produced of their investigations and findings, and discussions with the council's environmental health officer confirmed that the majority of complaints received by their department were located in a village lying to the north of the works.
Meteorological data provided by the Met Office confirms that the frequency for the winds that blow from the direction of the sewage works across the proposal site is for approximately 8% of the time in which wind is recorded. During this 8% wind direction event the frequency of low wind speed is also of relevance as odour nuisance is most likely to occur under stable conditions and low wind speeds. Of the total wind speed over the application site, the frequency of low wind speed accounts for 1.9%. Applying this figure means in real terms that odour may be detected at the application site for less than 7 days per year. Given this insignificant detection rate of odour we consider that the weight to be afforded to the odour generated from the works is negligible, if any at all, particularly when weighed against the major benefits of the development.

PPS23 *Planning and Pollution Control*

If the Council's view differs from that stated above we will draw your attention to the advice contained in PPS23 which states:
"In considering the risks from an existing source of pollution, the Council should consider how these can be managed or reduced".

We are aware that filtered ventilation systems can be incorporated to eliminate airborne contaminants including odour. The applicant indicated that if evidence demonstrated that odour is likely to cause a nuisance to the new dwellings close to the sewage works, they may be prepared to incorporate such a ventilation system.

PPS23 states the planning authorities should focus on whether the development is an acceptable use of the land and the impact of those uses rather than control of processes or emissions themselves. Planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced. They should act to complement but not seek to duplicate it.

9.0 RECENT APPROVED RESIDENTIAL DEVELOPMENT IN THE LOCALITY

See location plan at Appendix 9.

Despite the nearby presence of the sewage treatment works, further residential development in the area has not been stifled. There has been a number of planning permissions for new housing including the following:

"Mandalay" Lund Lane - 100m NE of the works
4 detached houses.

25 Lund Lane - 200m W of the works
2 semi-detached houses.

"The Close" - 200m W of the works
12 pairs of semi-detached dwellings

This does not take into account householder development for extensions etc.

Generally, these nearby developments appear to have been allowed where the number of new units in each case is less than 5, since this is the threshold above which Yorkshire Water is consulted on the grounds of sufficient sewerage capacity.

10 SUMMARY

10.1 Redevelopment of the site to provide 9 dwellings (23 dwellings/hectare) can be regarded as more sustainable development of a brownfield site.

10.2 The proximity of the site to the Lundwood Sewage Works represents a problem by creating the potential for additional sensitive receptors. A previous planning application and appeal were turned down for this reason. Yorkshire Water objected to the earlier application but since then, considerable investment of £7.7m has been made to improve the sewage works and bring it up to modern standards.

10.3 In planning their improvements, Yorkshire Water stated that the work would "protect existing and future occupiers of neighbouring land and premises from odour." A senior Environmental Officer at Barnsley MBC has confirmed that there appears to have been an improvement based upon the reduction of complaints although this is not necessarily proof of such improvement. Nevertheless, it is our opinion that if the work did not achieve this, there was little point in spending all that money.

10.4 Yorkshire Water has recently announced further expenditure to improve sewage works, although precise details are not yet available and inclusion of the Lundwood works in this programme is not confirmed.

10.5 The subject land is already in residential use so the advice in PPG23 regarding local authority steering new development away from problematical sites such as sewage works may not apply in this instance since the land is already in residential use rather than a planned "new" site. The sewage works improvements coupled with close monitoring is less likely to generate unpleasant odours and fly population than previously.

10.6 Realignment of the proposed dwellings so that the majority face away from the sewage works (rather than the previous application whereby they faced towards) will greatly reduce the effect of sewage odours entering the new dwellings.

10.7 National and local statistics indicate that air and water quality have generally improved. Evidence suggests that odour emissions from Lundwood appear to have been reduced due not least to the financial investment by Yorkshire Water.

10.8 Continued investment in best practicable means and careful monitoring should prevent problems occurring.

10.9 If the measures undertaken by YW prove insufficient, the applicant is willing to ensure that the developer has in place a mechanism to finance the installation of filtered ventilation systems in the new dwellings.

APPENDICES