



**WELWYN
HATFIELD**

**Joint Examination of the
Welwyn Hatfield Local Plan 2013-2032
and the
East Herts District Plan 2011-2033**

Birchall Garden Suburb/East of Welwyn Garden

Examination Hearing Statements

Matters and Issues

**Matter 5 - Other Environmental
Considerations**

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At paragraph 100 the NPPF says that Local Plans should be supported by a Strategic Flood Risk Assessment. At paragraph 109 it also points out that the planning system should prevent new and existing developments from contributing to or being put at unacceptable risk from or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability. At paragraph 123 it further points out that planning policies should avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development?

Water

21) Is the development of this site supported by a positive Strategic Flood Risk Assessment?

Response

- a) The Welwyn Hatfield Local Plan is supported by Level 1 and Level 2 Strategic Flood Risk Assessment (May 2016) prepared by JBA consulting (**ENV/10**).
- b) Welwyn Hatfield has also prepared a Flood Risk Sequential and Exception Test Document (June 2016) (**ENV/13**) which explains how it has applied the Sequential and Exception Tests (SET) to development sites promoted for allocation in the emerging Local Plan and sets out the results of those tests.
- c) The results of the SET and the SFRA have informed the Council's Sustainability Appraisal, Housing and Employment Land Availability Assessment (HELAA) and the Sites Selection Background Paper.
- d) The allocated site WGC5, which falls within Welwyn Hatfield, is predominantly located in Flood Zone 1 (98%), as reported in the Level 2 assessment. Development can be restricted to Flood Zone 1 (Gypsy and Traveller) or Flood Zones 1 and 2 if necessary (Dwelling houses) following a sequential approach to layout. As such, there is no need to consider alternative sites in Flood Zone 1.
- e) The East Herts District Plan is also supported by a Level 1 and Level 2 Strategic Flood Risk Assessment (August 2016) prepared by JBA consulting (**ENV/002**).
- f) East Herts has also prepared a Flood Risk Sequential and Exception Test Document (November 2016) (**ENV/003**)
- g) The allocated site EWEL1 which falls within East Herts is located mostly within Flood Zone 1. 83.20% of the site is Zone 1, 9.06% Zone 2, 4.65% Zone 3a, and 3.09% Zone 3b, as reported in the Level 2 assessment. The vast majority of the site is located within Flood Zone 1 and proposed development can be comfortably accommodated within this zone. It is therefore considered that the Sequential Test has been passed.

- h) The proposed housing allocations have been included in the respective SFRA's prepared for Welwyn Hatfield and East Hertfordshire. Accordingly, strategic flood risk information has been prepared to support the site selection and allocation process. Since the parcels of housing land lie in different LPA areas, there is not an assessment of the development proposals in combination.
- i) Whilst much of the land lies in Flood Zone 1, there will be a requirement to prepare more detailed assessment of the risk as the development proposals are brought forward. This assessment should focus on the performance of the land drainage and watercourse systems in the area and provide more detailed information on discharges and capacities to support a sustainable strategy.

22) Will the removal of minerals from the site and the consequent lowering of ground levels have any implications for flooding?

Response

- a) A number of scenarios with regard to the volume and extent of possible mineral extraction have been considered in consultation with Hertfordshire County Council Minerals and Waste. The ability to manage flood risk formed part of this consideration. The proposed extraction area now proposed facilitates the extraction of valuable mineral resource in a manner that enables the creation of a development platform that minimises the need to restore land and enables the creation of sustainable drainage through design.
- b) The NPPF states (footnote 20) that such proposals would be required to undertake a site-specific flood risk assessment. Whether a separate minerals application or a joint planning application is submitted, the Environmental Impact Assessment process will ensure that the impacts of extraction and restoration are fully considered in terms of flood risk. The integration of sustainable drainage into a green infrastructure, landscape-led approach will form part of the detailed masterplanning of the site as a whole, which will be undertaken collaboratively with stakeholders including the County Council as Lead Local Flood Authority.
- c) See also the Councils' response to Question 23 below.

23) Have the ramifications of this proposed development for flooding at locations downstream been examined? If so are all of the issues raised likely to be capable of remediation such that flood risk will not be increased elsewhere

Response

- a) There are no major water courses on site, though there are drainage ditches and some ponds formed by contours on the site which have been assessed at a strategic level in the Level 2 assessments by 2D generalised modelling, to give an indication of flood risk at the site in the absence of any channel topographic survey. There is also a small fishing lake at Holwellhyde Farm. The Strategic Flood Risk Assessments (East Herts ref: **ENV/002** and Welwyn Hatfield ref: **ENV/010**) undertaken for both local plans consider the cumulative impacts of development in

terms of flood risk, but highlights that the conditions and policies proposed in the local plans should allow for mitigation measures so that any increase in runoff as a result of development is properly managed and should not exacerbate flood risk issues either within, or outside of, administrative areas.

- b) The development will be required to maintain greenfield run-off rates and to manage surface water on site. Sustainable drainage systems will be integrated into the design, with flood attenuation swales and channels forming part of the green infrastructure strategy. On-site storage could also be accommodated within the site if required, which will manage discharge rates. The site promoter has already had detailed discussions with Thames Water, the Environment Agency and the County Council in their role as Lead Local Flood Authority. As referred to in Question 22 a site-specific flood risk assessment will be required. Developers would be required as part of a Flood Risk Assessment to confirm fluvial flood risk at the sites using detailed hydraulic modelling, constructed from channel topographic survey, and to confirm that there will be no adverse impacts downstream or to third party land as a result of the development.

24) Has the ability of this site to be drained through a Sustainable Urban Drainage Scheme been fully assessed?

Response

- a) The ability of the site to be drained through a Sustainable Urban Drainage Scheme has been fully considered. The combination of natural landform, restored landform and future development platforms will enable the creation of sustainable urban drainage schemes. Rather than engineered solutions, the preference is to fully integrate such schemes into the design of green infrastructure to ensure multi-functionality of these spaces.
- b) The Welwyn Hatfield and East Herts SFRA's recommend that development should adopt source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff and that green infrastructure should be considered as part of the mitigation measures for surface water runoff from development.
- c) The design of sustainable urban drainage features will be determined through a collaborative masterplanning approach which will involve all necessary parties, such as the County Council in their role as Lead Local Flood Authority. Any application for development of the site must be supported by a Flood Risk Assessment.

25) Has there been any research into the likely leaching of contaminants from the historically tipped areas into ground water and the local water courses?

Response

- a) The contamination evidence submitted by the site promoter assesses potential leaching of contaminants from the historically tipped areas (Welwyn Hatfield ref: EX35).

26) If so what are the results? Can a permanently safe environment for the human population and local wildlife be guaranteed?

Response

- a) Groundwater and surface water samples collected by the site promoter's contaminated land consultant Royal Haskoning DHV, confirm that contamination is present and is likely to be associated with leaching from the landfill. The contamination found has been assessed and the conclusion of the contaminated land consultant was that this is unlikely to represent a risk to human health. Further monitoring of groundwater and surface waters at the site is ongoing to corroborate the data previously recovered and to support regulatory discussions regarding baseline groundwater and surface water conditions. The site promoter proposes that mitigation works will be undertaken to improve baseline groundwater and surface water conditions.
- b) Leachate generated by the former mineral workings is currently intercepted by a north south trending drain located to the east of the fishing lake in the north and to the east of the Eastern arm of the Hatfield Hyde Brook further south. The drain collects a combination of leachate and groundwater from the superficial deposits. The interception drain was installed in 1984 to minimise the impact on the wider groundwater and on the eastern arm of the Hatfield Hyde Brook. The landowner has advised that whilst this system has worked successfully over the years, some impact does occur on both the shallow groundwater and the brook. The site promoter therefore proposes that a new interceptor drain will be installed to improve baseline conditions and provide a long term sustainable solution. The existing system would remain in place and has already undergone a series of upgrades including:
- Installation of automatic monitoring and telemetry to control and measure the pumping
 - Maintaining a service and emergency call out contract with the pump supplier
- c) The proposed interceptor drain would be installed along the western and south western boundary of the former mineral workings. The drain would extend from the fishing lake in the north and wrap around the south western boundary of the former mineral workings, terminating to the east of a small copse. The system would be managed and maintained as part of the development's aftercare strategy.
- d) Further detailed assessments relating to leaching of contaminants will be required to support a future planning application for the site. The applicants will be required to submit a remediation strategy which is flexible and adjustable to deal with any uncertainties and contamination matters identified during the remediation and construction phase. The remediation strategy will be required to secure a permanently safe environment for the human population and local wildlife.

27) Can this development be implemented without major upgrades to the trunk sewage network and/or the sewage treatment facilities?

Response

- a) Advice from Thames Water has indicated that upgrades will be required to the existing drainage infrastructure from Welwyn Garden City to Rye Meads Sewage Treatment Works to accommodate the level of development proposed in Welwyn Garden City. In 2015 Thames Water's Local Plan Consultation representation in respect to Birchall Garden Suburb indicated that the existing wastewater network capacity in the area is unlikely to be able to support the demand anticipated from this development and that upgrades to the existing drainage infrastructure are likely to be required to ensure sufficient capacity is brought forward ahead of the development.
- b) Since these comments a number of things have changed:
- Thames Water have a detailed hydraulic sewer model that allows for more accurate flow analysis
 - Thames Water's calculation that converts dwellings into peak foul water rates has been revised.
- c) The consequence of the above is that modelling now demonstrates that lower sewers have some available capacity. The Mimram Trunk Sewer has very limited capacity however and restrictions have been observed. The current position of Thames Water is that the current sewer system is not able to accommodate the proposed development without some form of infrastructure upgrade. The key question is if a new trunk sewer to Rye Meads is required to accommodate the additional flow from Birchall Garden Suburb. Thames Water consider that this is technically feasible but that this would be a costly solution and have confirmed they would aim to identify alternative solutions to providing the available infrastructure at a lower cost. These could include attenuation options in Welwyn Garden City, removal of misconnected surface water, existing sewer upsizing or a combination of these approaches. Once more certainty regarding the onsite drainage proposals, connection points into the public sewer and method of connection (i.e. pumped or via gravity) is available, further study work can be commissioned to better understand specific wastewater infrastructure requirements. The implementation cost of infrastructure reinforcement will be funded by Thames Water through the proposed Infrastructure Charge subject to Ofwat finalising the proposed amendments to Infrastructure Charges.
- d) Wastewater treatment for the site would be provided by the Rye Meads sewage treatment works. A Water Cycle Study undertaken in 2008/9 relating to planned growth set out in the Regional Spatial Strategy stated that capacity of the treatment plant was likely to become an issue within the development plan timescales. However, the situation has changed since the report was produced and the forecast dates of when it was envisaged that capacity issues would arise, which were best estimate at the time, have been reviewed and advanced. Thames Water are currently working on their business plan for the period 2020-25 and on the basis of this work advise that there is sufficient capacity at Rye Meads for all potential growth planned within the catchment until at least 2026. The longer term plan for capacity at Rye

Meads post 2026 will be appraised and developed by Thames Water as details of the proposed scale and phasing of development sites becomes clearer.

- e) The Hertfordshire Water Study, which has not yet been published, but is in very advanced draft form, has considered key issues associated with water planning in the county to 2051. In a report to the Hertfordshire Infrastructure Planning Panel on 22 March 2017 (Welwyn Hatfield ref: **INF/21**) the project manager of the study presented on the findings of the Water Study noting in particular the finding that, subject to the appropriate future investment, no critical issues had been uncovered which would affect local plan growth strategies.

28) If not, what infrastructure improvements are proposed and when are they programmed for implementation?

Response

- a) Thames Water has advised that infrastructure upgrades will be required to support development at Birchall Garden Suburb. The specific nature of those upgrades and their delivery programme will be determined through ongoing engagement with Thames Water. The Hertfordshire Water Study, which is close to being finalised, will assist with long-term planning relating to wastewater and will inform the next round of water resource plans and long-term strategies for water resource use and management.

Noise and air quality

29) Has there been an assessment of noise and atmospheric pollution levels along the northern side of the A414?

Response

- a) The site promoter has previously submitted noise and air quality assessments to Welwyn Hatfield Borough Council relating to commercial sources close to the site. Other sources were not considered as part of these assessments.
- b) Any planning application submitted in respect of the site must be supported by noise, vibration and air quality assessments. These assessments will be required to address all sources including traffic and will be required to follow relevant professional guidance.
- c) Welwyn Hatfield Council monitors air quality along the A414 roadside at South East Welwyn Garden City. The data indicates that air pollution along the A414 at south east Welwyn Garden City has exceeded the legal maximum values for the past three years. The area has not been designated as an Air Quality Management Area as there are currently no sensitive receptors. The developer will need to demonstrate at application stage that air quality issues can be mitigated and that an acceptable residential environment can be achieved in the vicinity of the road. The applicant will need to do air quality modelling based upon traffic data, the Council's diffusion tube data and any other pollution in surrounding locality. The results of the assessment

will need to show that future occupants will be protected and that air quality limit values in the vicinity of new dwellings are below the limit values set out in the Environment Act 1995.

- d) The noise impact assessment will be required to follow Professional Practice Guidance on Planning & Noise (May 2017).

30) If so do these demonstrate that an acceptable residential environment can be achieved in the vicinity of the road without the need to resort to mitigation?

Response

- a) Welwyn Hatfield Council has already identified through ongoing monitoring that there is an issue with air quality along the A414 roadside at South East Welwyn Garden City. There may also be a need for noise mitigation subject to the outcome of an appropriate assessment. The appropriate time for these assessments to be submitted to the Local Planning Authority would usually be at the planning application stage, though given the proximity of the A414, it has been a consideration through the Plan-making process. Policy SP19 and EWEL1 require that a masterplan is prepared to provide further guidance on site specific matters. The site promoter will be required to submit relevant assessments as part of this process in order to ensure that the proposals will deliver an acceptable residential environment. In the event that mitigation is required relating to the A414 there are a range of potential solutions available. The appropriate solution will depend on a number of factors including the location of development and uses proposed, and could include physical interventions as well as detailed design and layout considerations. The need to mitigate such issues is common to all forms of development and is not considered a reason to preclude development.
- b) A modification has been proposed to the Birchall Garden Suburb Strategy Diagram through the Statement of Common Ground between Welwyn Hatfield, East Herts and Historic England (Welwyn Hatfield ref: **EX30**, East Herts ref: **ED165**) to provide an increased green buffer on the northern side of the A414. Whilst primarily this buffer will serve to visually screen the development, it will also serve to increase the distance between the A414 and any receptors which are sensitive to air or noise pollution related to the road as well as to provide a physical interceptor. The details of this buffer will be determined through the masterplanning process, but is envisaged as being a landscaped bund with a mixture of trees and hedgerow species adjacent to a green infrastructure belt comprising sustainable drainage features of swales and attenuation ponds.