

Appendix A: DEF Response to LA3 Master Plan Oct 2014

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PART B

Questions

1. Have we included everything necessary in the **Context** and **Analysis of the Site** sections in the Draft Master Plan for LA3?

Yes	<input type="checkbox"/>
No	<input checked="" type="checkbox"/> NO

Please explain your answer in the box below

Comments:

The Context of LA3 should acknowledge that other than those current residents of Hemel Hempstead who will move to the new housing estate, or who will obtain employment directly therefrom, the development will not benefit any residents of Hemel Hempstead, and many will be adversely affected, primarily because of:

- Loss of visible amenity of and from Green Belt countryside;
- Exacerbation of existing traffic congestion at key junctions in West Hemel;
- Extra pressure on local amenities, particularly GP Surgeries and secondary schools.

and that specifying a "Flagship Development" which raises the profile and image of the town might go some way to compensating for these losses. This principle should result in a presumption in favour of the highest level of sustainability in building standards.

Water management should consider the effect on Shrubhill Common, where the reduction of water feeding into the valley above it could well have a detrimental impact on the ecosystem which is currently established in the Local Nature Reserve, particularly during sequences of dry months or years. Please see our response to Question 3.

Given the impact that LA3 could have on the Shrubhill Common LNR, there should be an environmental impact study to demonstrate that the proposed "wildlife corridor" along the eastern side of the development adjoining Fields End." will be fit for purpose. Please see our response to Question 3

2. Have all important issues been covered in the **Development Constraints and Opportunities** section in the Draft Master Plan for LA3?

Yes	<input type="checkbox"/>
No	<input checked="" type="checkbox"/> NO

Please explain your answer in the box below

Comments:

There is considerable local concern that sufficient provision for increase in traffic from the local access points has not been taken into account. Although the road junctions with The Avenue and Long Chaulden will be improved, it should be noted that most of the residents of LA3 will need to commute to either the Industrial Estate, the Motorways, or the Train Station, and no provision for this has been specified. Locally, the congestion at the top of Fishery Lane is already acute, and there does not seem to be any way to ameliorate this. Other pressure points will be the "Top of the World", the junction of Galley Hill with Leighton Buzzard Road leading to the Link Road, and the traffic lights at the A41 access road at Two Waters. Congestion at these points will also be increased with traffic from the other LA developments.

No specifications have been made for walking or cycling routes to the station

Chaulden Lane, Pouchen End Lane and the Winkwell Bridge are totally unsuitable for traffic that would need to access the proposed travellers' site.

Provision to restrict easy access to the rights of way (Chilterns Way and Hertfordshire Way) by fly tippers and unauthorised vehicles, has not been made.

The natural slope of the land is an excellent opportunity to include active solar PV in the design of the buildings, but this has not been specified in the master plan.

3. Do you agree with the Master Plan Requirements section in the Draft Master Plan for LA3?

Yes	<input type="checkbox"/>
No	<input checked="" type="checkbox"/>

Comments:

a) Green Infrastructure –

There is ambiguity as to whether the areas shown on the plan that appear to be Open Space are intended to be Green Infrastructure or Mown Grass, used for formal or informal recreation. Mown grass is totally unacceptable as a wild-life corridor. The area allocated for Shrubhill Common Nature Reserve extension is not specified on the plan, and mown grass would not suffice. See our response to Question 4.

b) Open Space –

See above

c) Access and Movement Strategy–

Although a primary school is planned, older children will need to go to secondary school, and the only local secondary school (JFK) is already oversubscribed, and has faith-related entry requirements. The need for the children to commute to other parts of HH has not been considered.

d) Social and Community Uses –

There is currently concern that the proposed enhancement of the medical services will be at Parkwood Drive Surgery, and that access to this to from LA3 will be difficult. The consequence of increased demand for car parking at Parkwood Drive has not been considered. The chronic parking problem in the Stoneycroft area has in the past threatened the integrity of Northrige Park as a valued open space.

e) Design Considerations

The buildings, (community and residential), should be built to the highest possible standards of energy sustainability and environmental sustainability, rather than the minimum standards in place at the time of building. This has not been emphasised in the Master plan.

f) Surface Water Drainage

Water issues in relation to the proposed Hemel Hempstead LA3 Development.

Rainfall

Rainfall records for Warners End (adjacent to LA3) for the last 30 years, show the annual average to be 790mm but with a variation over that period from around 600mm to 1000mm. The record shows a pattern of drier years followed by wetter years, although there are some anomalies and the pattern is not entirely predictable. Individual months can be almost entirely dry whilst others can record up to 160mm. October is on average the wettest month. Sequences of wet months can produce exceptional totals, which can lead to drainage basin problems.

Drainage Basins

About 30% of the area of LA 3 (catchments 1 and 2 in the plan) drains into the western branch of the dry valley that forms Shrubhill Common. There is currently a small drainage ditch in this area which leads to a drainage depression just to the north of the common. Throughflow and groundwater flow, through the valley, eventually feeds into the River Bulbourne near Hemel Hempstead Rugby Club. There is a history of flash flooding towards the lower end of the valley affecting households during heavy rainstorms. The remaining area of LA3 (catchments 3, 4 and 5) drains south, on moderate slopes, towards the Bulbourne Valley. Here water emerges from the underlying chalk to feed springs in the river bed. During periods of

prolonged rain or heavy storms some overland flow may occur with temporary ponds forming on the saturated soils towards the valley bottom.

Hydrology and the Impact of Urbanisation

Most of the area of LA3 is currently arable land with some hedges and trees. The soil has developed on clay with flints and other related deposits which overlay the cretaceous chalk rocks. On the higher less steep areas the clay layer is several metres thick but thins considerably on the steeper slopes. Whilst the soils can become quite wet, rainfall generally infiltrates into the soil and percolates down into the chalk. Throughflow, interflow and groundwater flow takes the water slowly towards the valley bottom. As already described, some occasional overland flow may occur.

The construction of a new neighbourhood at LA3 will involve the building of roads, paths, driveways and roof areas, which will lead to a large increase in the amount of impermeable surfaces. The surface-runoff from this area will largely enter a man-made drainage system, thus reducing the natural movement of water towards and into the River Bulbourne. This river is a rare chalk stream which has already been recognised as being at risk from low flows, caused by over-abstraction of water from the chalk, being used for domestic water supply. There are also water quality issues to be addressed to prevent pollutants and sediments from the developed area entering the river. In the case of Shrubhill Common, the reduction of water feeding into the valley could well have a detrimental impact on the ecosystem which is currently established in the Local Nature Reserve, particularly during sequences of dry months or years. The Core Strategy establishes the principle that water should be retained within the catchment area and this will not happen with a man-made drainage system unless structures and systems are put in place.

Water Resources

The proposed 900 new homes, no matter how water efficient, will need a water supply, which will almost certainly come from the chalk aquifer below. This resource has already been recognised as over-abstracted and in the long run probably unsustainable without considerable environmental damage. Water abstracted and not retained within the immediate basins will mean that there will be further flow reductions in both the Bulbourne and Gade Rivers and an increased risk of drying up completely, along considerable stretches of their courses, during dry years. Given that Hertfordshire along with Surrey has the greatest population density of the shire counties and that West Hertfordshire is even higher, it can be seen that any further housing development may be considered undesirable on the basis of overpopulation. In addition, the county has one of the highest uses of water, per head of the population, in England. Given that current use is close to 170 litres per person per day and the DBC target for new development is 105, it is difficult to see how this will be achieved unless very high standards of design are imposed on the whole LA3 development, as well as promoting the use of water efficient devices in the home.

Tackling Water Issues-Water Conservation

Water entering the man-made drainage system should be retained within the catchment by installing water butts in all gardens, creating new local water infiltration areas in conjunction with natural zones to increase biodiversity and making good use of the existing drainage depression above Shrubhill Common. Water re-entering the River Bulbourne must pass through sediment and pollution traps. A local water treatment plant for both road run-off and sewage should be constructed so that water can be returned to the Bulbourne/Gade system locally, rather than be taken many miles away to Maple Cross for processing, before entering the River Colne. The construction of impermeable surfaces across LA3 should be minimised and development in catchment areas 1 and 2, above Shrubhill Common, should be restricted, so as to maintain existing levels of groundwater flow into the common. The use of grey water by all households should be an essential part of building design in LA3. It is essential, that if the development goes ahead, DBC keeps rigidly to the environmental principles established in its own Core Strategy document.

It is noted that the planned provision of Sustainable Drainage Systems, SuDS, should help preserve the hydrology and the ecology of the local Bulbourne and Gade Valleys by reducing the amount of surface-runoff from this area that enters a conventional drainage system, but this needs to be reinforced and supported by targets have been set for this reduction, such as hinted at in 5.33 “The Environment Agency is likely to require that run-off rates are no more than the site presently generates in its greenfield state”, and by a commitment that there will be no significant reduction in water draining towards Shrubhill Common LNR.

g) Services

See comments regarding water supply and sewerage above

h) Green Belt and the Countryside

Recent government guidelines have indicated that Building on Greenbelt land should only proceed in urgent circumstances. Given the availability elsewhere of Brown field sites and less attractive greenbelt land, the proposals violate government guidelines.

3. *Please explain your answer in the box below under the relevant sub-heading*
Do you agree with the **Indicative Layout** in the Draft Master Plan for LA3?

Yes	<input type="checkbox"/>
No	<input checked="" type="checkbox"/>

Shrubhill Common's planned Wildlife Corridor is inadequate

Re (5.7) "The two main areas of open space comprise a central corridor across the site which acts as an extension to Shrubhill Common, and the southern swathe, embracing south facing slopes of the land and the alignment of the gas pipeline easement (see Plan 4)."

and (5.8) "The area of open space is sufficient to provide excellent opportunities for ball games and informal recreation."

and "Green Infrastructure" preamble "Protect a wildlife corridor along the eastern side of the development adjoining Fields End. "

Although (5.7) "The total amount of green space shown on the Master Plan is . . . significantly in excess of the minimum recognized standard", this standard is to do with recreational needs such as described in 5.8, and does not provide for the special needs for a Wildlife Corridor for Shrubhill Common, arguably the most significant Local Nature Reserve within Dacorum.

The Draft Plan therefore gives the impression that mown grass is acceptable as a Wildlife Corridor, since it appears to indicate that the central corridor "which acts as an extension to Shrubhill Common", will be mown open recreational space. It also indicates that an exiguously narrow strip based on Footpath HH20 towards Fields End (part of the Chiltern Way) can function as a Wildlife Corridor bordering housing areas H1, H2, and H3.

If a Shrubhill Common extension is proposed, it should have full Local Nature Reserve (LNR) status, with protection and management commitment equal to that of the existing Shrubhill Common LNR. In any case a Wildlife Corridor cannot be simply mown grass, and it should be maintained in a similar fashion to the LNR.

Mown grass is not a substitute for a Wildlife Corridor – nor can it function as an extension to Shrubhill Common. If an extension is proposed, one must look at the habitats now present - they are what are required for a genuine extension of the LNR. Currently Shrubhill Common has effectively open access to all the countryside to the Northwest; this would be reduced to two routes, one mown, one too narrow, if the development proceeded according to the Draft Plan. Instead, the "Central Corridor" route ought to incorporate genuine ecological resource, including appropriate ongoing management. The HH20/Chiltern Way route would need to be wider, as detailed below.

DEF Suggestions

DEF and Friends of Shrubhill Common, together with advice from Martin Hicks of the Herts. Biological Records Centre have compiled the following suggestions that could help reduce the adverse environmental impact of LA3 on Shrubhill Common Local Nature Reserve, by providing more effective Wildlife Corridors.

Guidelines issued by English Nature¹ state that Wildlife Corridors should:

- **be preserved, enhanced and provided, where this can be cost-effective, as they do permit certain species to thrive where they otherwise would not**
- **corridors should be as wide and continuous as possible**
- **their habitat should match the requirements of the target species.**

The target species should be those that are currently found, or potentially found, in Shrubhill Common, namely the typical species of unimproved chalk grassland. An ideal Wildlife Corridor would therefore combine the existing native hedges with a strip of grassland, which should be mown 1/3rd at a time, once per year. The grass cuttings should be removed. Grass footpaths could be mown through the area more frequently.

Bearing all these factors in mind, an optimum arrangement for a Wildlife Corridor would combine a swathe of grassland not otherwise used for public recreation, (except as a visual asset, and a mown footpath).

The above considerations apply both to the “Central Corridor” route and to the HH20/Chiltern Way route, for which more detailed suggestions are supplied in Sections 3.1 and 3.2 below.

Preferred Option - HH20/Chiltern Way route

The ideal corridor would be the swathe of land between the two hedgerows to the west of HH20/Chiltern Way, currently designated as H1, H2, H7 on the draft Master Plan. This has long been the opinion of our advisor from the Herts. Biological Records Centre. This swathe of land currently contains two fields at the bottom end that are currently used for hay making, so these could, with suitable management, revert over time to an area of unimproved grassland, and would therefore be the obvious location for an extension to Shrubhill Common.

This is the most obvious location for a corridor radiating out towards Potten End, as it would be consistent with the other patterns of open space in Hemel Hempstead which, termed “Green Lungs” were an essential part of the original master plan for the New Town. Other surviving examples are Warners End playing fields and Gadebridge Park. This option would secure a decent lifeline out to Potten End, and the larger (wider) this can be, the better. It would also help preserve some of the character and amenity value of the Chiltern Way as it passes through our Borough.

Second Option - HH20/Chiltern Way route

If the whole area currently designated H1 H2 H7 cannot be used as the Wildlife Corridor, a strip of land parallel with and immediately to the west of the existing HH20/Chiltern Way western hedgerow should be so designated. This would back onto the back-gardens of the new housing. Physical barriers such as sturdy kissing gates could deter flytipping and motorcycle access.

As to the width of this strip, field edge strips left for environmental purposes can be anything from 2 to 12 m wide, but in view of the special circumstance of the Local Nature Reserve, and the practical ongoing management requirement to gang mow it (see Paragraph 3 above), the width in this case should be no less than 15m.