Hungerford Preferred Options Housing Site Allocations: Broad assessment of transprot impact

The West Berkshire Council Housing Sites Allocations DPD July 2014 put forward two sites as preferred options for new housing within Hungerford. Each of the two sites are located at opposite ends of the town, one in the North of Hungerford (Preferred Option 18), and the other at the southern end of the town (Preferred Option 17). Both sites were selected from a number of options due to the minimised impact that would occur following their potential development.

From these two options, there is a need to help prioritise one site to put forward as a housing site within Hungerford. In order to achieve this, a basic analysis of potential transport impacts on the local community has been undertaken using 2011 census data.

Methodology

The impact of any new housing at the preferred housing options is achieved through a process of factoring 2011 census data taken from the surrounding communities to the proposed number of homes each site is potentially seen as accommodating. This requires assembling data for each Output Area (OA), and existing postcode locations.

Data covering a range of topics were assembled, including resident population, the number of dwellings, car ownership, and travel to work data. Output Areas display information for small groups of populations between 100 to 625 people, or between 40 and 250 households. These are the lowest geographical level for which census data is provided. However, the boundaries for OA's do not sit neatly in regards to the urban layout, and in some circumstances, the OA's are larger than the area required for analysis. Therefore, data from each OA is factored down to localised postal code points. This is achieved by counting the number of postcodes within each OA, and dividing the census data equally amongst each point. Using this methodology can then help to determine a more realistic picture of the local community which may be spread across multiple OA's.

Following this process of factoring down data from output areas to postcodes, boundaries were developed to determine the extent of the local community. Each of the postcodes within this boundary were combined to determine a picture of the local community. Upon the completion of this process, the data for the local community was factored-up to take account of the proposed housing numbers for each preferred option. The data then output from this process helps to determine the potential impact the new development may have on the existing communities and infrastructure within Hungerford.

Picture 1 shows the location of both preferred options, and the local communities used to factor the census data. The image also shows each postcode point, and outlines for the OA's.

Picture 1 – Hungerford Housing Site Allocations – Preferred Options 17 & 18



Preferred Option 17

The site is located adjacent to the southern settlement boundary of Hungerford, east of Salisbury Road (see Picture 1 – Yellow Box). While covering an area of 13 hectares, only five would be allocated for development, in the area between Salisbury Road and John O'Gaunt School. The allocated space for development could accommodate approximately 100 dwellings. Due to the sites location, and with easy access to services, facilities and the open countryside, there is good potential to encourage walking and cycling.

Any development on this site would allow for low to medium density development with a mix of sizes and types of dwellings. The site could also potentially support a new primary school, on land adjacent to the existing secondary school at John O' Gaunt as part of the scheme.

Community Boundary

The selected boundary used to establish the baseline values for the local community were as follows:

- All residences within the triangle bounded by Salisbury Road, Priory Road and the Boundary Settlement (RG17 0LR; RG17 0LH; RG17 0LJ; RG17 0AH; RG17 0DE; RG17 0AQ; RG17 0DQ; RG17 0DF; RG17 0AJ; RG17 0BW; RG17 0DG; RG17 0BZ; RG17 0AL; RG17 0AN; RG17 0AR);
- All homes on the western edge of Salisbury Road between the Roundabout with Kennedy Meadow and Church Way (RG17 0LG);

- All homes south of Bulpit Lane, including all homes on Park Way and Coldharbour Road (RG17 0AW; RG17 0AS; RG17 0AT; RG17 0AX; RG17 0DB; RG17 0AP; RG17 0BB; RG17 0BD; RG17 0AZ);
- A selection of residences between Bulpit Lane and Hillside Road (RG17 0AG; RG17 0AU).

Table 1 – Community Data for Preferred Option 17					
Data Set	Existing Community		Total		
Dwellings	526	100	626		
FACTOR	0.19011407				
Population	1211	230.228	1441.228		
Persons per Dwelling		2.302			
Cars and Vans	696.191	132.356	828.547		
Vehicles per Dwelling		1.324			
No Car Households	81.062	15.411	96.503		
One Car Households	198.638	37.764	236.402		
Two Car Households	157.824	30.005	187.829		
Three Car Households	31.891	6.067	37.958		
Four+ Car Households	20.529	3.903	24.432		
Travel to Work – Drive	392.976	74.710	467.69		
T2W – All Car Journeys	429.114	81.581	510.7		
T2W – Rail	30.005	5.704	35.709		
Children aged under five	68.652	13.0517	81.704		
Children aged five to six	29.21	5.553	34.763		
Children aged seven to	68.081	13.133	82.214		
ten					
Children aged 11 to 18	119.05	22.633	141.68		
Distance to Railway Station		1.42km			
Distance to Hungerford Primary School		0.98km			
Distance to John O'Gaunt School		0.5km			
Distance to High Street		1.05km			

Table 1 – Community Data for Preferred Option 17

Preferred Option 18

This site is nominated as an alternative to Preferred Option 17. The site is assembled from a collection of sites put forward within the SHLAA, and is collectively referred to as the Eddington Sites, comprising Hungerford Veterinary Centre, Folly Dog Leg Field (part of), and land at Eddington and Hungerford Garden Centre. Collectively put forward as one site, any development put forward here could accommodate approximately 87 dwellings.

This site lays to the north of Hungerford, adjacent to the settlement boundary of Eddington (see Picture 1 – green box). Dwellings here would have easy access to the countryside, with opportunities for walking and cycling, but are less accessible to local services and facilities than the site put forward at the southern site. Again, this site would accommodate low to medium density developments with dwellings in a mix of sizes and types. The site is located within a groundwater emergence zone, and could potentially suffer from flooding unless mitigation measures are undertaken.

Community Boundary

The selected boundary used to establish the baseline values for the local community were as follows:

 All dwellings between Bath Road and Upper Eddington, and between the Mill on the River Kennet up to the Veterinary Centre (RG17 0DZ; RG17 0ET; RG17 0EU; RG17 0EZ; RG17 0HA; RG17 0HD; RG17 0HF; RG17 0HG; RG17 0HH; RG17 0HJ; RG17 0HL; RG17 0HQ; RG17 0EX).

Data Set	Existing Community	Preferred Option 18	Total	
Dwellings	156	87	243	
FACTOR).557692308		
Population	309	172.327	481.327	
Persons per Dwelling		1.981		
Cars and Vans	226.610	126.379	352.989	
Vehicles per Dwelling		1.453		
No Car Households	11.299	6.301	17.6	
One Car Households	63.338	35.323	98.661	
Two Car Households	45.987	25.647	71.634	
Three Car Households	14.623	8.155	22.778	
Four+ Car Households	6	3.346	9.346	
Travel to Work – Drive	128.935	71.906	200.841	
T2W – All Car Journeys	141.078	78.678	219.756	
T2W – Rail	13.091	7.301	20.392	
Children aged under five	31.545	17.592	49.137	
Children aged five to six	6.091	3.397	9.488	
Children aged seven to	8.169	4.556	12.725	
ten				
Children aged 11 to 18	26.442	14.747	41.189	
Distance to Railway Station		1.43km		
Distance to Hungerford Primary School		1.6km		
Distance to John O'Gaunt School		2.36km		
Distance to High Street		1.17km		

Table 2 –	Community	Data for	Preferred	Option 18
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Outcomes

Following a review of the data, the following outcomes for the two preferred options can be identified. 100 new dwellings in the south of Hungerford would see approximately 230 new residents into the town. Of these approximately 54 would be aged 18 and under, requiring an extra 19 primary, and 23 secondary school places. The existing local community generate approximately 429 passenger trips by car each day as journeys to work. Inclusive of 100 new homes, this would rise to approximately 511, a growth of 82 work trips. Furthermore, there are already 30 daily rail journeys to work generated in this community, rising to 36 after the development. Taking into consideration the distance of 1.4km and the likely route to the station, it is assumed many of these journeys between the home and the station would be undertaken by car. Combining these travel to work journeys and the extra primary school places, the new development could generate an extra 106 passenger journeys during the morning peak.

The 526 households within the local community own approximately 696 cars and vans, at a rate of 1.32 vehicles per home. With 100 new dwellings, this would see a rise of 132 new cars at the development. The breakdown of car ownership in this area is approximately 81 (15%) of all homes do not own any car, 199 (38%) have one car, 158 (30%) have two cars, and 52 (10%) have three or more vehicles. Factored up, of the 100 new homes, 15 would be without a vehicle, 38 would be one car households, 30 would have two cars, and ten would have more than 2 cars.

In regards to the location of the site, and assuming no other changes are made to the road network connecting to the area, Preferred Option 17 sits 1.42km from the Railway Station and 1.05km from the main retail area via Priory Road and Salisbury Road, 1km from Hungerford Primary via Priory Avenue, and 0.5km to John O'Gaunt school via Priory Road. All journey measurements commenced from the north-south footpath marked through the centre of the site.

Preferred Option 18, located in the north of Hungerford potentially offers a smaller number of dwellings. The boundary chosen for the local community in this area was approximately 25% the size of the community used to factor numbers for Preferred Site 17, with only 156 dwellings and 309 residents. Of these 309 people, 72 are aged 18 and under, and within this subgroup, 32 were below the age of five years old. Therefore, if this scenario were to be translated into the 87 new residential dwellings, then there would be a need for 8 new primary spaces, and 15 secondary places, with an extra 18 children looking to enter the education system in the coming years. The location of the site means the distance to both Hungerford Primary and John O'Gaunt schools is 1.6km and 2.4km respectively. There is a likelihood many of these trips to school would be made via car.

Travel to work data for the local community shows there 141 car passenger journeys made daily, and this would grow by approximately 79 daily work passenger trips through the new housing. In addition, this would generate a further 7 rail journeys alongside the existing 13 undertaken by the local community. Again, the distance from the site to the station is 1.4km, and it is assumed most of these journeys to Hungerford Station are made by car, with no obvious shorter walking route visible on the map. Assuming all journeys to the schools and station are made by car, in addition to the projected journeys to work made by car, the network would see an additional 108 passenger journeys during the morning peak.

In regards to car ownership, there are approximately 227 vehicles owned by residents at the 156 dwellings within the local community, equating to 1.453 cars per dwelling. Of these, 11 households (7%) own no car, 63 (41%) have one vehicle, 46 have two cars (29%), and 21 have three cars or more (13%). In regards to the new development, this would lead to approximately 6 households with no cars, 35 dwellings with one vehicle, 26 with two vehicles, and 12 with three cars or more.

Conclusion

When considering each of the sites, using existing communities within the vicinity of the preferred options as a baseline show both will increase car ownership by between 126 and 132 vehicles, and population by between 170 and 230 people.

Each site would also require between 22 and 42 extra classroom spaces to accommodate the growth in the number of school aged children.

Taking into consideration the impact each site would have on the road traffic network, working with an assumption that any journey at 1km or more would be made by car, dwellings at Preferred Site 18 would generate more car trips during the peak hours than those at Preferred Site 17, despite comprising 13 less homes. This is primarily due to the location of the sites in relation to services. With John O'Gaunt school being located on the edge Preferred Option 17, and measured as 500 metres via Priory Road, it is assumed the 23 children would travel via walking and cycling. Generated trips from this area may also decrease if the site were to see a new primary school located on the land adjacent to the secondary school. The rather more remote location at Preferred Site 18 means there are no obvious walking routes which can be developed to promote more sustainable travel journeys to key services and facilities. These journeys generated at the northern site may exacerbate congestion further, if passengers are dropped off at both schools or the station, before travelling out of Hungerford on the A4.