Manchester City Council

Strategic Housing Land Availability Assessment
2010

1. Introduction

1.1. The 2009 SHLAA, published in March 2010, had a base date of April 1 2009 and identified capacity for 61,368 units in Manchester over the period 2009 to 2027, including an allowance for windfall.

1.2. Strategic Housing Land Availability Assessments were introduced in Planning Policy Statement 3 (PPS3) and are a key component of the evidence base to support the delivery of sufficient land for housing.

1.3. The primary role of the SHLAA is to:

- Identify sites with potential for housing
- Assess their housing potential; and
- Assess when they are likely to be developed

1.4. The 2009 SHLAA, published in March 2010, had a base date of April 1 2009 and identified potential for 61,368 units in Manchester over the period 2009 to 2027, including an allowance for windfall.

1.5. This document is the first annual update of the SHLAA and identifies changes to the planning pipeline over the period April 1 2009 to March 31 2010, new sites brought forward for housing development and sites that are no longer available or considered suitable for residential use.

1.6. Inclusion of a site within the SHLAA does not imply that planning permission will be granted for residential development nor does it preclude sites from being developed for other suitable uses. Equally it does not preclude the possibility of residential development being granted on sites that have not been included within the Assessment.

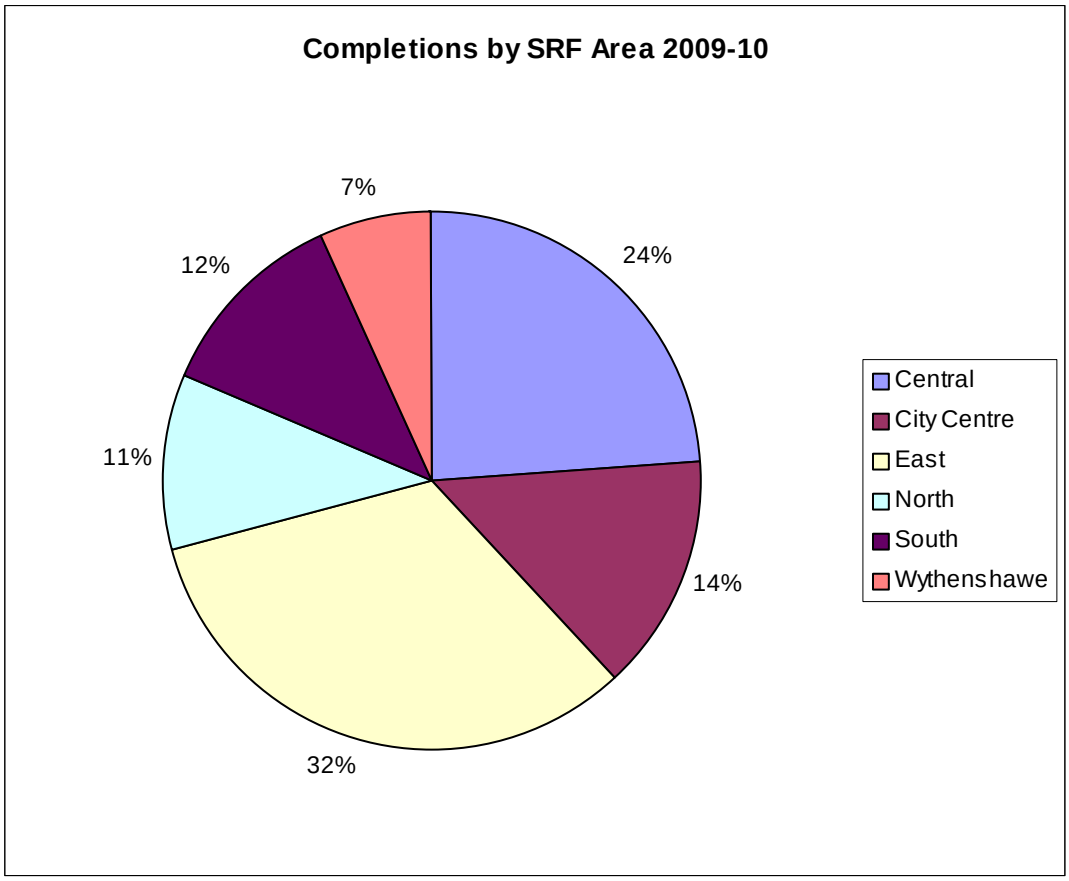
1.7. The base date for the 2010 SHLAA is April 1 2010.

2. Residential Activity in Manchester 2009/10

Completions

2.1. The number of housing units completed each year had been increasing over recent years, reaching a high of 5,196 units (net) in 2007/08. Since then the global economic problems have been having a significant adverse effect on the housebuilding industry in the UK. The problems caused by a lack of funding for both builders and purchasers has led to a slowdown in completions, with a gross completion rate for 2009/10 of 2,107 units. Net completions, taking account of demolitions and conversions to non-residential uses, were 1,496, down 21% on 2008/09.

2.2. East Manchester accounted for 32% of overall completions. The City Centre contributed 14% of completions, although a number of sites in the North and East were within the City Centre fringes.

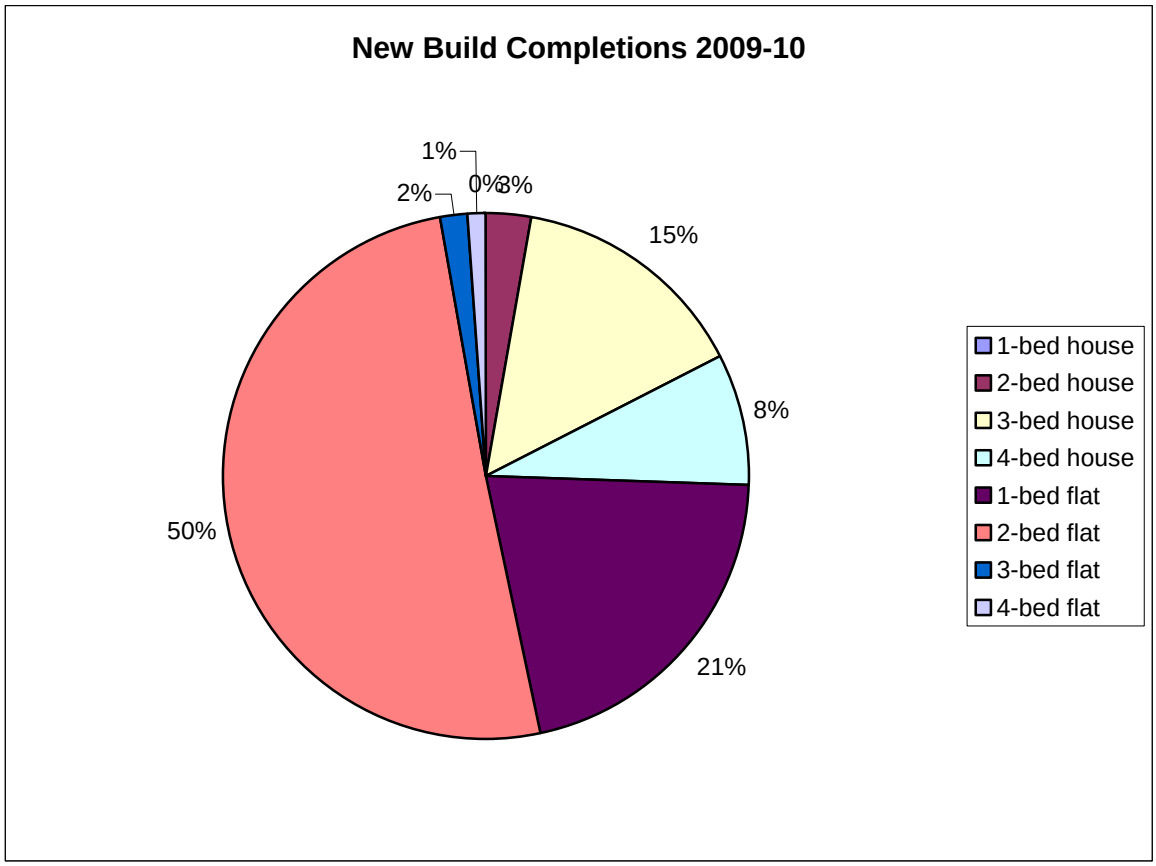


2.3. Over the period April 1 2009 to 31 March 2010 there were 1,929 new build completions across the City. These are listed at Appendix 1.

2.4. Private completions accounted for 1,805 new units, whilst Registered Social landlords (RSLs) built 124 new units. Some 1,732 units were built on Brownfield sites, with 197 on Greenfield sites. The latter included sites surplus to educational requirements. Fourteen per cent (268 units) of all new build completions were in the City Centre.

2.5. Flats accounted for just over 74% of the new build activity, with 1,435 of these compared with 494 houses. The high percentage of flats leads to an average density for all new build developments of 96 units/hectare, with 1,589 (82%) built at densities above 50 units per hectare.

2.6. In terms of housing types, 50% of completed new build units were 2 bedroom flats, with 1 bedroom flats accounting for a further 21%.

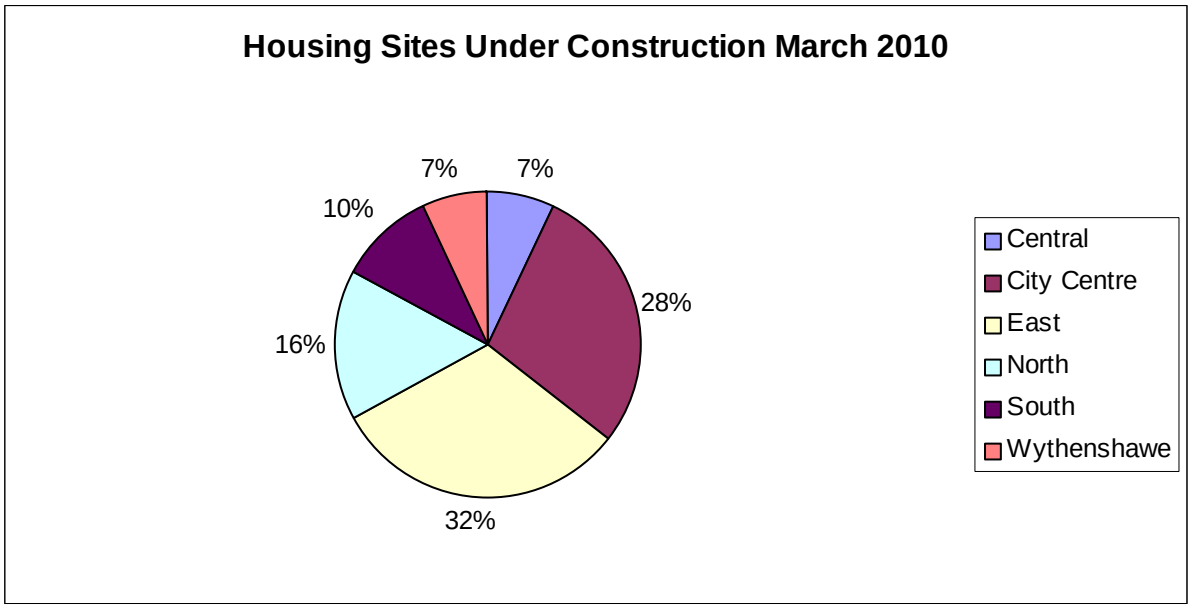


2.7. Conversions from non-residential buildings created 70 new dwellings, of which 30 were in the City Centre. These comprised 6 houses and 64 flats. Appendix 2a contains a complete listing of all non-residential conversions.

2.8. Conversions from residential property created 108 new residential units, with a net increase of 52 units. All were flats. These are listed at Appendix 2b.

Schemes under construction

2.9. 133 housing developments were on site in Manchester at the end of March 2010. When complete these will produce 5,561 additional housing units. Again flats account for the majority of activity (74%). In terms of location, 1,742 or 32% of the units under construction are in the East SRF area, with a further 1,580 (28%) in the City Centre. Details of schemes under construction are listed at Appendix 3. Since the data reflects the position at April, some of these sites have now been completed and additional sites will have been started. These changes will be picked up as part of the ongoing updating and review process.



Sites with Planning Permission

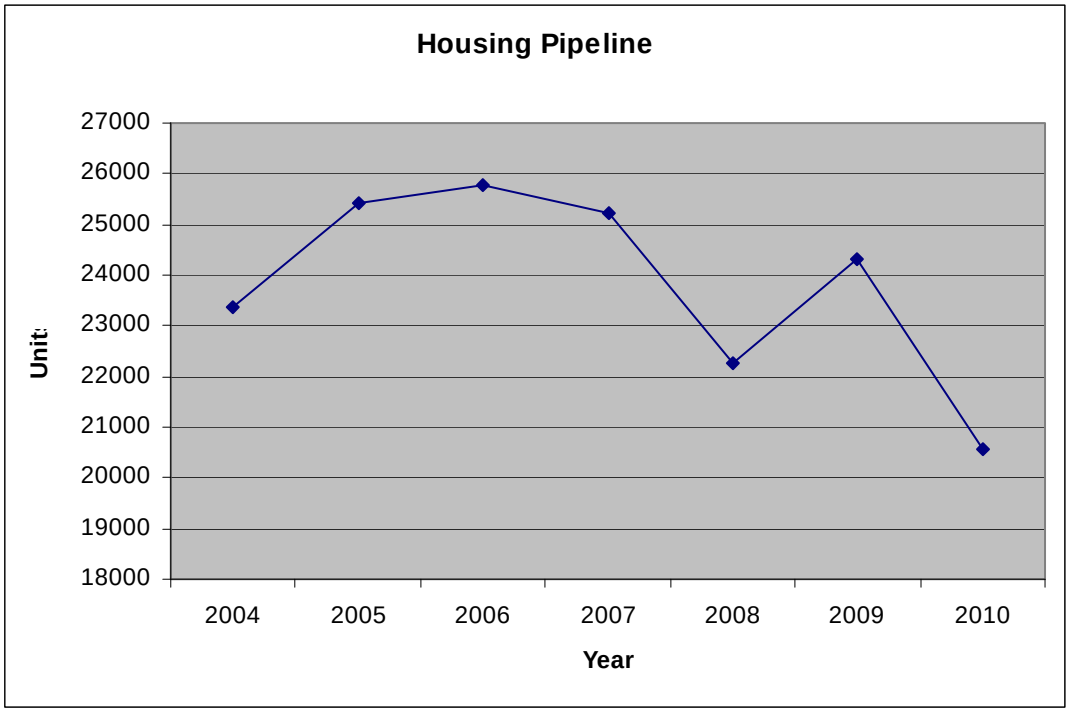
2.10. At the end of March 2010 there were 218 sites in the City with outstanding permission for residential development. These covered a total of 15,121 units, of which 3,293 were in the City Centre. Some 14,819, or 98% were for new build units, with 14,247 of these being on Brownfield sites. A further 187 units could be created by the conversion of non-residential buildings, of which 91 were within the City Centre and a further 57 in the Ancoats area. Finally conversions of larger residential properties could add a further 115 units to the housing stock.

2.11. Sites with planning permission are listed at Appendix 4.

Planning Pipeline

2.12. The Planning Pipeline comprises sites under construction and those with planning permission and at March 2010 this stood at 20,576. This compares with 24,297 at March 2009. The drop in the pipeline over the last year is in part the result of the alteration in the length of planning permissions, with the change from 5-year validity to 3 years being brought in from August 2006.

2.13. The pipeline has been falling from a high in 2006. The increase in 2009 results from the approval of the 4,300 unit scheme at Holt Town Waterfront.



Schemes granted planning permission over the year.

2.14. Permission was granted for 1,018 housing units in Manchester over the period April 1 2009 to March 31 2010, although of these only 624 units were 'new' permissions, the remainder being made up of renewals, revisions and sites where full or reserved matters approval had been granted following a previous outline permission. Some 382 units were approved on sites already identified in the 2009 SHLAA and these are listed at Appendix 6a. The remaining 242 units were windfalls.

2.15. Of the 1,018 units, 778 were for private developments, 240 for RSL or Council developments. Some 561 were for houses or bungalows, 457 for flats, including residential and non-residential conversions. This is the first time since detailed information began to be collected in 2002 that permissions for houses have outnumbered those for flats.

Site types	Permissions granted from April 1 2009 to March 31 2010
New Greenfield Housing Developments	129
New Brownfield Housing Developments	685
Conversion from existing dwellings*	49
Change of use to dwellings	155
Mixed/unknown	0
Total	1,018

Demolitions

2.16. Demolitions of residential properties occur for a number of reasons. Unfit properties may be cleared under the Housing Acts via a compulsory purchase order. Compulsory purchase can also be carried out under the Planning Acts where land and property needs to be acquired to facilitate major developments. Both the Council and RSLs may clear their own property where this has reached the end of its useful life. RSLs may acquire council properties for redevelopment. Private developers may knock down properties and redevelop the sites. The council can also demolish properties under emergency powers where these are a danger to the public.

2.17. Not all of these require either planning permission or building control approval and as such the levels of demolition can be difficult to assess.

2.18. Information taken from the Housing Department, Building Control, Council Tax, CPO approvals and site visits indicates that the number of residential properties demolished in Manchester over the period April 1 2009 to March 31 2010 was 553 and those lost through conversion was 58.

3. Updating the 2009 SHLAA

3.1. The base data for the 2009 SHLAA has been updated to take account of residential activity over the year and the new sites brought forward through planning permissions. Additional changes are outlined below.

Call for Sites

3.2. The Call for Sites has continued as part of the annual updating of the SHLAA, with developers, land owners, members of the public and other interested parties able to submit sites to the Council for consideration at any point in time.

3.3. Two sites were submitted through the Call for Sites during 2009/10, both by Salford RC Diocesan Trustees Registered. These were at Montgomery Road, Longsight and Alexandra Road South, Whalley Range. Both are considered appropriate for housing use and have been added in to the SHLAA database. The two sites are considered capable of producing eighteen units based on their size and the density of housing development nearby.

Other Additional Sites

3.4. Manchester City Council identified a number of sites for disposal over the year, some of which are considered to have potential for

residential development. Most sites are small, however three are over 0.5ha and have the potential to produce 20 or more units. These are

- Hinchley Road, Charlestown
- Symond Road, Higher Blackley
- Longhurst Road, Higher Blackley

In addition, two plots of land at Birley Fields in Hulme have been identified as having some potential for housing by the Regeneration team.

3.5. All the new sites added to the SHLAA are listed at Appendix 7

Deleted Sites and Expired Permissions

3.6. A number of planning permissions have expired over the year, as outlined in paragraph 2.12. Where these sites are considered to still have potential for housing development they have been added to the list of Additional Sites. These sites are listed at Appendix 8.

3.7. Sites no longer considered to be available for housing development have been deleted. These are listed at Appendix 6b.

3.8. Following these updates it is considered that sites and areas identified through the SHLAA could supply approximately 32,274 additional units beyond the planning pipeline.

4. Housing Requirements

4.1. The Regional Strategy requires an annual average provision, net of clearance replacement, of 3,500 per annum or 63,000 new dwellings in Manchester between 2003 and 2021.

4.2. In Manchester net completions for the seven years from April 2003 to March 2010 were 20,959 units. The RS figure for this period was 3500 x 7 equalling 24,500 units; consequently 3,541 housing units below adopted RS levels have been delivered.

4.3. The requirement from April 2010 to March 2021 is therefore:
11 x 3,500 + 3,541 = 42,041.

4.4. Since the 5 Years supply requirement operates from the April following the publication of the 5 year supply statement, ie April 2011 to March 2016, then potential completions in the current year need to be discounted from the figures. Current estimates for net completions for 2010/11 are 729 units, some 2,770 units below RS levels.

4.5. The requirement from April 2011 to March 2021 is therefore:
10 x 3,500 + 3,541 + 2,770 = 41,311, or 4,131 units per annum.

4.6. Based on these rates the 5 Years supply requirement against Regional Strategy at April 2010 for the period April 2011 to March 2016 would be: 4,131 x 5 = 20,655 units.

4.7. Following the proposal to revoke Regional Strategy earlier this year, Manchester City Council has reconsidered its housing figures in the light of the current recession and the resultant lower housing delivery rates. After due consideration Manchester has chosen to retain housing figures at a high level, with a policy within the Draft Core Strategy of providing 60,000 net additional units over the 18 years from April 2009 to March 2027. This approach retains the principle of Regional Strategy but the delivery is over a longer time period.

4.8. If Regional Strategy is revoked then the housing requirement will be measured against a target of 60,000 additional net units between April 2009 and March 2027.

4.9. Allowing for the undersupply in 2009-10 and the projected undersupply for 2010/11, the requirement from April 2011 to March 2027 measured against the Draft Core Strategy is:
60,000 - 1496 - 729 = 57,775 or 3,610 units per annum.

4.10. Based on these rates the 5 Years supply requirement against the Draft Core Strategy at April 2010 for the period April 2011 to March 2016 would be would be 3,610 x 5 = 18,055 units

5. Overall Supply

5.1. Allowing for outstanding demolitions on sites with planning permission then identified supply though the planning pipeline at April 2010 was

	Gross Units	Demolitions on Sites	Net Units
Under Construction	5,561	0	5,561
Full and Reserved Matter Permissions	6,650	61	6,589
Outline Permissions	8,471	586	7,885
Sub-Total	20,682	647	20,035
Estimated 2010/11 Completions	1229	500	729
Total Supply from pipeline after April 2011	19,453	147	19,306

5.2. Sites identified through the SHLAA beyond the planning pipeline are expected to supply an additional 32,274 additional units beyond the planning pipeline.

Windfalls

5.3. The 2009 SHLAA did not include small windfalls (less than 5 units) for the first 10 years but did make an allowance within the 5 -10 years supply for larger windfalls. This did not reflect the lack of identifiable sites but rather the viability of the areas in which these sites were located, together with historic evidence on the level of windfalls being brought forward. It was however noted that the inclusion of windfalls was subject to review.

5.4. In updating the SHLAA it is apparent that, even in a poor housing market, sites continue to be brought forward for residential use, both via the private sector and through the identification of surplus property by the council. It is clear that sites will continue to be brought forward over the lifetime of the Core Strategy and that these will form a significant element of the future land supply. Realistically they are also expected to form part of the five-year supply.

5.5. The 2010 SHLAA assumes that windfalls will come forward over the same period as in the 2009 SHLAA. This means that there is an allowance for small windfalls from 2019/20 and for larger windfalls from 2015/16. The larger windfalls are however expected to come forward at a slower rate in the short-term than anticipated in 2009, starting at 150 units per annum from 2015/16 and rising up to reach 700 units per annum from 2023/24 onwards.

5.6. It is anticipated that any new sites which do come forward in the shorter term will either offset identified SHLAA sites that do not come forward as anticipated or they will help to offset demolitions over the period.

5.7. The total allowance for windfalls over the period to 2027 is 6,650 units, of which 1,000 are expected to be on small sites.

Demolitions

5.8. The capacity of the majority of the sites identified through the SHLAA is identified as net, however there were around 353 properties identified for demolition on sites without planning permission at March 2010.

Total Supply

5.9. Total supply for the period April 2010 to March 2027 is therefore; 20,035 + 32,274 + 6,650 – 500 = 58,459. Supply for the period April 2011 to March 2027 is 58,459 – 729 = 57,730. This is slightly below

the 57,775 unit residual requirement within the Draft Core Strategy. This is not considered to be an issue at this stage as the levels of windfalls are conservative.

6. Five Years Supply

6.1. Following the publication of PPS3 in November 2006, Local Planning Authorities are required to assess and demonstrate the extent to which existing plans fulfil the requirement to identify and maintain a rolling 5-year supply of deliverable sites for housing and a further supply of sites for years 6-15.

6.2. PPS3 indicates that for sites to be deliverable they need to be:

- Available;
- Suitable; and
- Achievable

6.3. It is reasonable to assume in a 'normal housing market' that where sites are either under construction or have the benefit of full or reserved matters permission that they are both available and suitable for development within the short term. There is also a reasonable prospect that housing will be delivered on these sites within five years.

6.4. The net number of units falling within these categories at 31 March 2010 totals 12,150. With anticipated net completions of 729 units in 2010/11 this would leave 11,421 units available for completion in 2011 to 2016. A further 7,885 net units had the benefit of outline permission at 31 March 2010, an element of which would be expected to come forward over the five years.

6.5. Sites continue to be brought forward by developers, however most of these are small and will not add substantially to the pipeline during 2010/11. In addition some developers who remain on site have initiated revisions to existing schemes, which reduce the number of flatted properties and hence the total yields. It is assumed therefore that there will be no net gain in the pipeline over 2010/11.

6.6. Additional sites are expected to make a contribution to the supply within the period 2011 to 2016. Levvel assessed 15 key sites from the 2009 SHLAA using a residual land value method to determine when they would become viable. These sites all fall either within the Strategic Location for Housing identified in the Core Strategy or in the north of the city.

6.7. The 15 key sites were considered to be capable of delivering some 16,000 units in total, with 9,236 of these considered to be viable before 2018. Excluding those sites that already have planning permission, the key sites are considered capable of delivering around 7,090 units in total, with 6,600 units considered viable before 2018. Of these 4,750 might be considered to fall within the five year supply.

6.8. Levvel also assessed smaller additional sites within the SHLAA, grouping these according to site type over seven value areas across the city. This indicated that sites totalling 2661 units were viable for commencement between 2011 and 2016 over 6 of the value areas.

6.9. The City Centre was considered by Levvel to be viable over the whole of the period 2009 to 2027 and has been identified as capable of providing some 8,500 net additional units. Schemes within the city centre are normally high-density development and have a substantially longer build length than development in the outer areas of the city. As such, and because of funding issues, the city centre is not expected to make a significant contribution to the five year supply beyond those schemes already in the pipeline.

6.10. Total potential supply between 2011 and 2016 might therefore be;

Under Construction and Full PP	11,421
Outline PP (say 25%)	2000
Key Sites	4750
Other additional sites	2661
City Centre (say 10%)	850
Sub Total	21,682
Additional demolitions	-500
Total	21,182

6.11. This would equate to 4,236 per annum and is in excess of both the requirement against Regional Strategy and the requirement against the Core Strategy. These figures would give Manchester a 6.05 year supply based on 3,500 units per annum, 5.13 years supply based on the under supply against RS or a 5.86 year supply when compared with the Draft Core Strategy.

6.12. Based on ‘normal’ market conditions therefore the council does have a supply of deliverable sites for housing for the five years from April 2011 and can identify sites and locations suitable for housing development for years 6 to 15

6.13. Unfortunately we are not operating in a ‘normal housing market’ at the present. Across England completions in 2009 were the lowest in peace time since 1923-4. In Manchester gross completions for 2009/10 dropped to the levels of the late 1990’s and are forecast to be over 40% lower in 2010/11.

6.14. There are signs of recovery. New starts on site have been made over 2009/10. The Homes and Communities Agency’s Kick-Start scheme is supporting a number of housing schemes that have stalled or are struggling in difficult market conditions. These include Sarah Point and Advent 5 in Ancoats and £9.4 million to support the first four phases at Maine Road. Activity has recommenced on other stalled

sites following the acquisition of sites from developers who had gone into receivership.

6.15. At the same time there have been changes that will lower delivery rates. Government funding has been axed for the Collyhurst PFI project. Expected job losses in the public sector may have a knock-on effect on house building in the short term. At this stage it looks highly unlikely that completions will return to the 3,500 and above levels within the period 2011/16

7. A Realistic Approach

7.1. The proposed revocation of Regional Strategy will give councils the option not only to set their total housing figures but to set differential delivery rates across the plan period. In view of this an exercise has been carried out looking at all the sites within the SHLAA on the basis of their likely delivery if there is no immediate upturn in the economic climate.

7.2. The amount of units available under each category and an analysis of the findings are given under the headings below.

Sites Under Construction

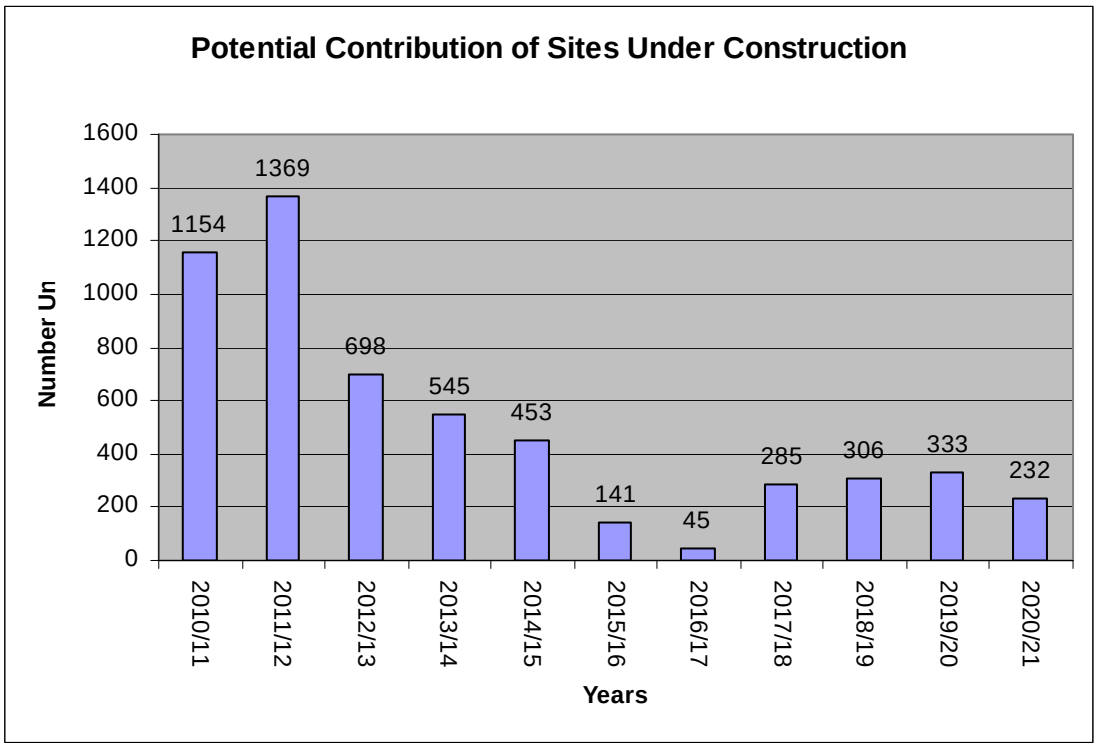
7.3. There were a total of 133 residential sites under construction at April 1 2010, giving the potential for 5,561 additional dwellings. These sites are listed at Appendix 3.

7.4. Dwellings on sites currently under construction would normally be expected to be completed in the first five years; although where sites are large they may produce completions beyond five years. The current recession has caused major issues in the house construction industry however, with a number of sites stalling with developers either going out of business or closing problem sites down to concentrate on activity elsewhere. As such, some sites under construction, particularly those for flatted schemes might be expected to produce completions beyond the first five years.

7.5. Where developers are active on site then the potential contributions are based on previous build rates, with a proviso that this is unlikely to exceed 40 dwellings per annum on individual sites, excepting where the schemes involve the construction of flatted accommodation. In the latter case it is reasonable to expect all units within a block to be completed at a similar time.

7.6. Where developers are no longer active on site a view has been taken as to whether the site is still viable in the short term. Where these are not viable then the anticipated completion dates have been moved back.

7.7. Taking all these factors into account, it is considered that sites under construction are likely to produce completions as indicated below.



Sites with Planning Permission

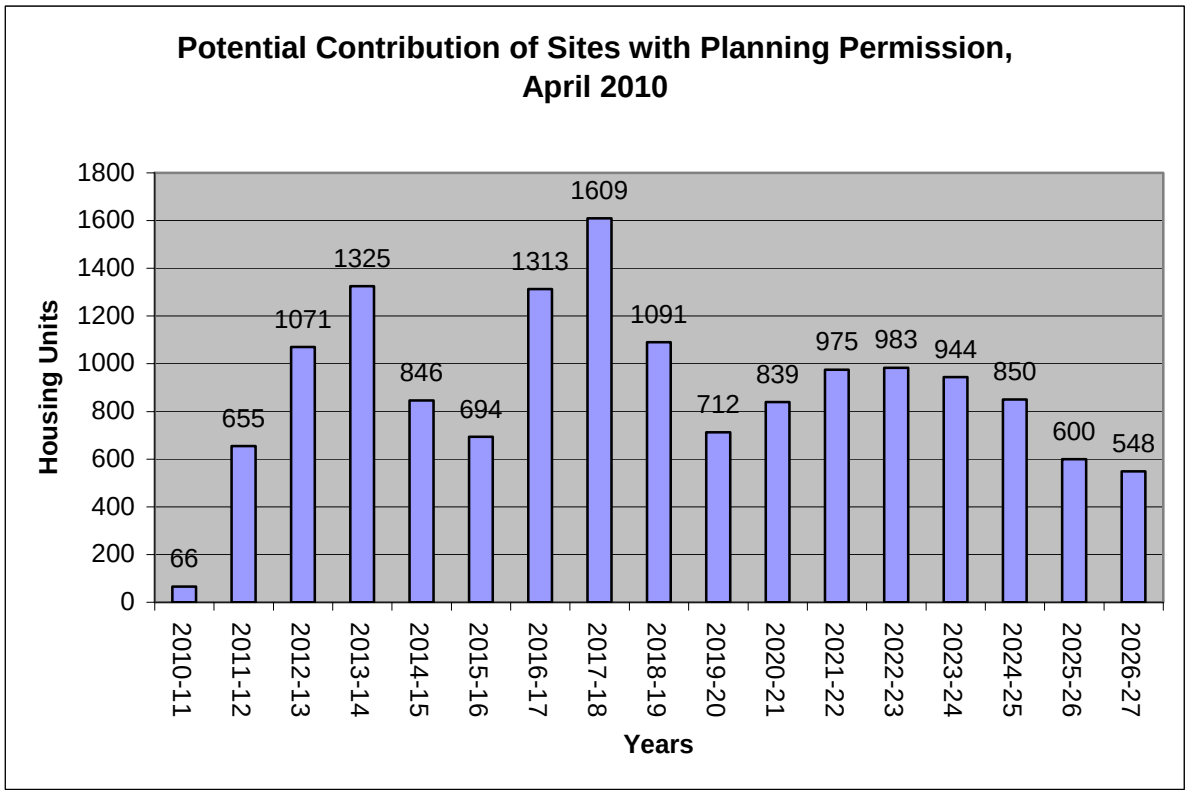
7.8. A total of 218 sites had permission at April 1 2010, giving the potential for 15,121 dwellings. These are listed at Appendix 4.

7.9. It was assumed that all sites with planning permission would be brought forward for development either in the short or longer term and that the majority of these would be built out by 2020/21, the end of the period for the current RS targets. The only exception to this was the site at Holt Town, which involves the construction of around 4,500 high density units in an area to the east of the City Centre which encompasses a large number of existing businesses.

7.10. All sites where full planning permission has been obtained are considered to be suitable for development. Decisions on whether they are available for development within the first five years have been based firstly on ownership and any known issues, for example the availability of funding. Where there is no known start date then the potential for a site to produce completions over the first five years has been based on the size, type and location of the development, with flat-led high density developments unlikely to come forward in the short term. Other factors taken into account include whether or not the developers have applied for building regulations approval, and the amount of development activity still taking place in the general area.

7.11. Where sites only have the benefit of outline planning permission they would generally be expected to come forward at a later date and the figures reflect this.

7.12. Again, where sites have a large capacity they may straddle a number of time periods, based on the assumptions of maximum build rates of 40 dwellings per site per year.



Additional Sites

7.13. A total of 528 additional sites have been identified as having some potential for housing development through the SHLAA process. These could supply around 32,274 additional units beyond the planning pipeline.

7.14. Densities on these sites have been determined with regards to policies within the Draft Core Strategy. These indicate that high density developments (over 75 units per hectare) are appropriate in both the City Centre and the wider Regional Centre, given the accessible location. Also that within the City Centre there will be a presumption towards high density housing development, within mixed use.

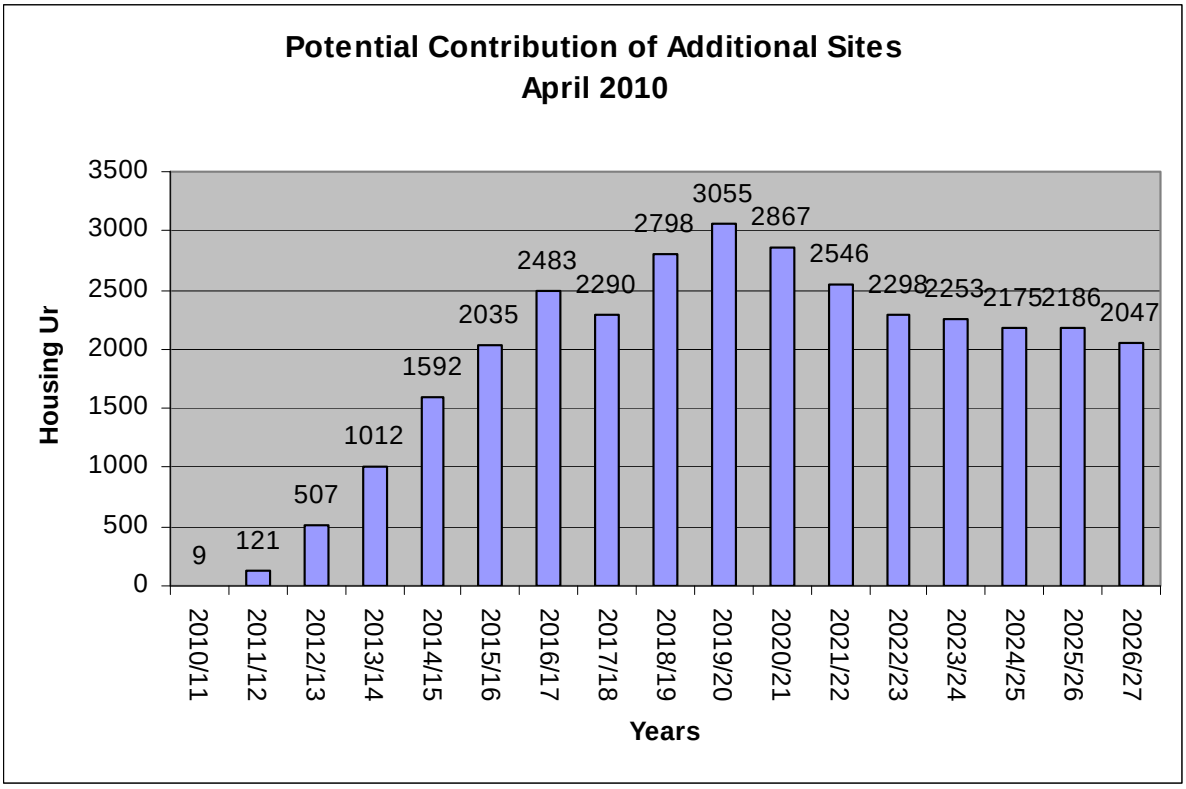
7.15. Within the Inner Areas in North and East Manchester densities will be lower but generally over 40 units per hectare. Outside the Inner Areas the emphasis will be on increasing the availability of family housing and therefore densities will generally be below this.

7.16. Policy aside, historic evidence suggests that densities around 50 dwellings per hectare are achievable in most areas within the City. Average densities for completed units have varied between 82 and 96 units per hectare over the last four years.

7.17. Individual site capacities were determined having regards to site characteristics and the character of adjacent residential areas.

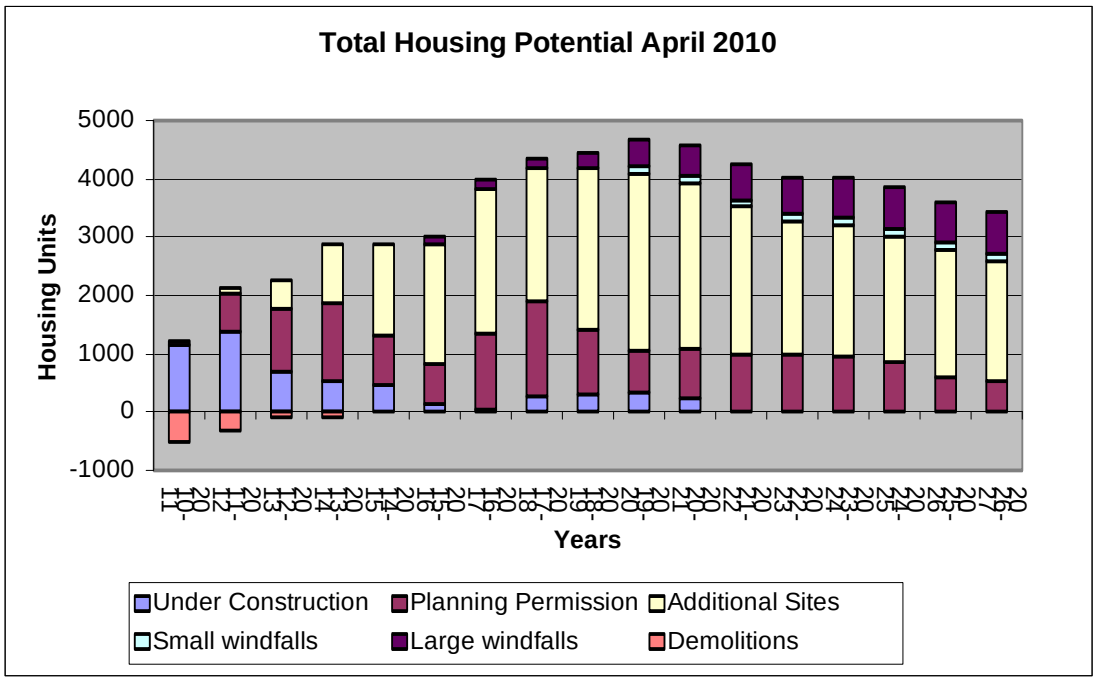
7.18. The rates at which additional sites will come forward has been determined with regards to the viability of the different parts of the City and the type of development most suitable to each location. There is an assumption that high density flat-led schemes in and around the City Centre and wider Regional Centre will come forward at a later date than envisaged in the 2009 SHLAA, as funding for both developers and purchasers on such schemes is difficult to obtain.

7.19. Taking all factors into account, it is considered that the additional sites could realistically contribute to the housing supply as follows.



Total Supply

7.20. The total supply to 2027, including windfalls, is outlined below.



7.21. Based on the potential of sites to contribute to the housing supply a realistic projection at this stage for the period to 2027 is considered to be;

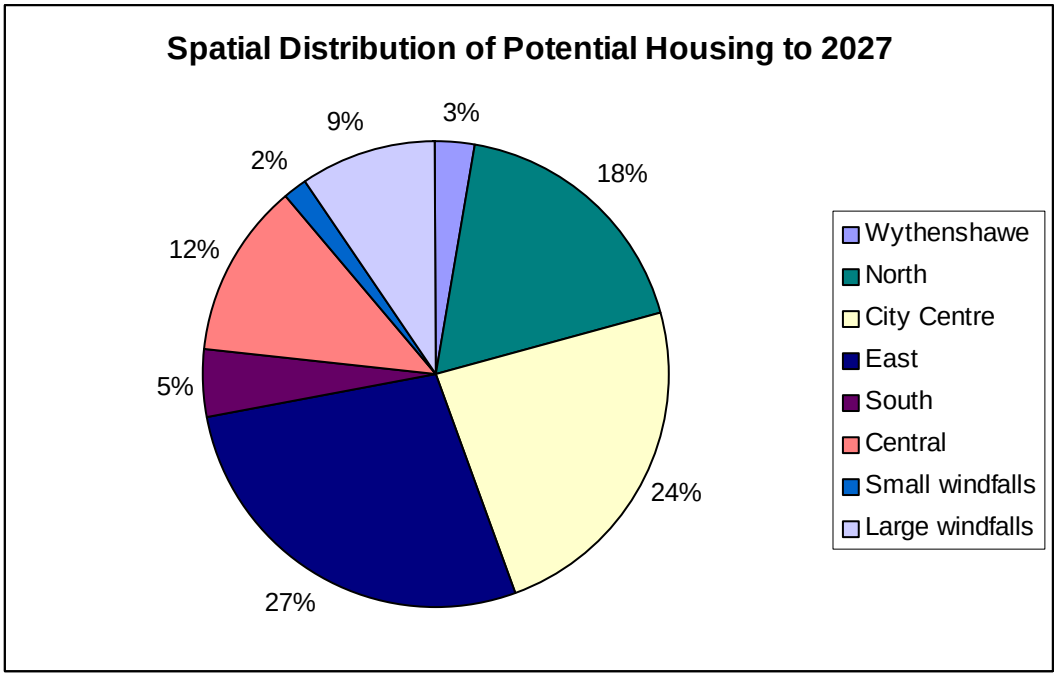
- 2011 – 2016 average 2,540 units net per annum - total 12,700
- 2016 – 2021 average 4,400 units net per annum - total 22,000
- 2021 – 2027 average 3,870 units net per annum - total 23,200

7.22. These delivery rates have been incorporated within the Draft Core Strategy.

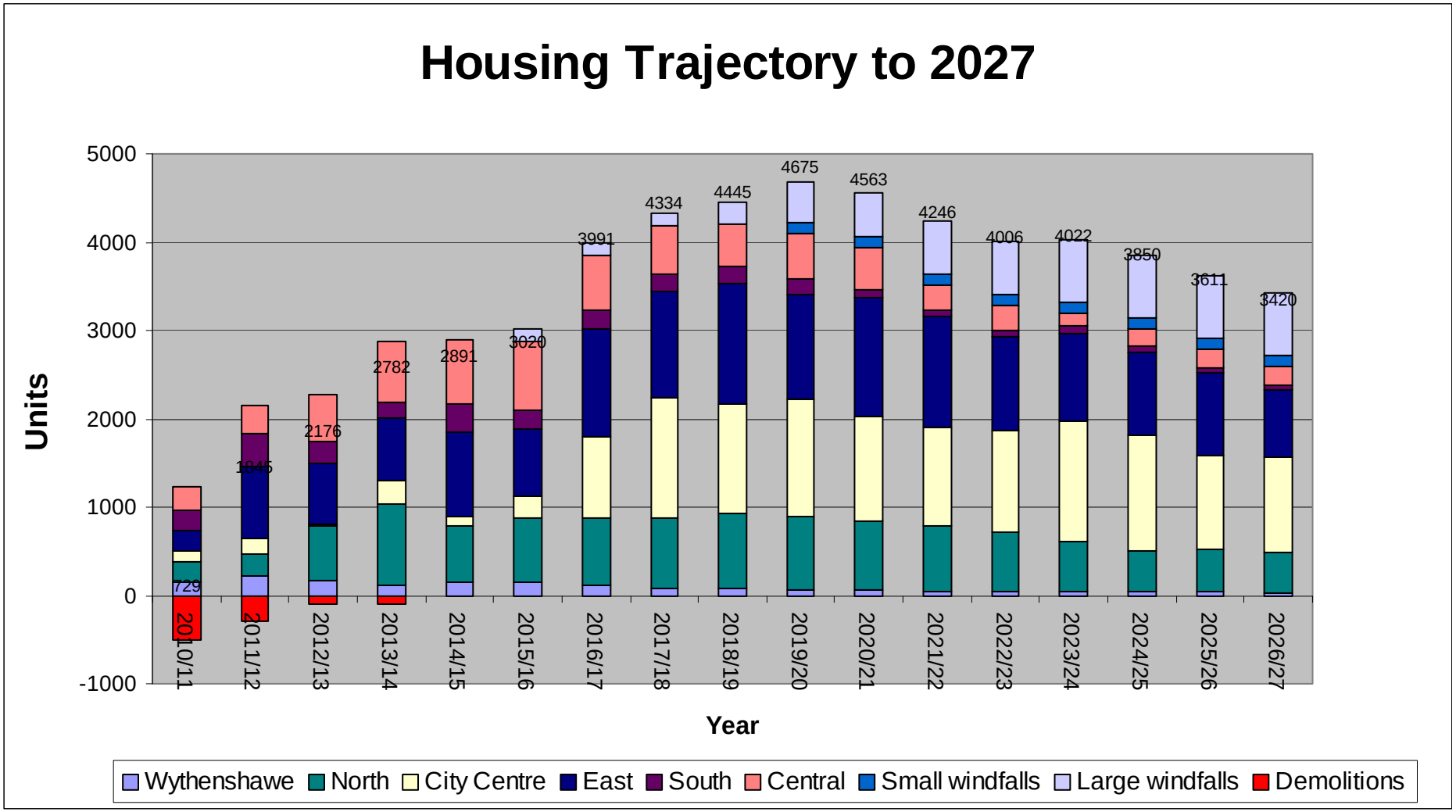
7.23. At these levels the 5 year land supply is well in excess of the 5 year requirement.

8. Spatial distribution of Housing Sites

8.1. The SHLAA indicates that sites for housing and hence the potential for new housing will predominantly be in the North, East and City Centre. This distribution is in accordance with the Regional Spatial Strategy's policy MCR2, which gives priority to residential schemes in the Regional Centre and the Inner Areas and with policies H1 and H2 of the Draft Core Strategy, which cover overall housing provision and the Strategic Location for Housing.



8.2. The contribution of sites from the different areas of the City over the period to 2027 are show in the housing trajectory below.


Housing Trajectory to 2027
Units
5000
4000
3000
2000
1000
0
-1000
729
1845
2176
2782
2891
3020
3991
4334
4445
4675
4563
4246
4006
4022
3850
3611
3420
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
2017/18
2018/19
2019/20
2020/21
2021/22
2022/23
2023/24
2024/25
2025/26
2026/27
Year
Wythenshawe
North
City Centre
East
South
Central
Small windfalls
Large windfalls
Demolitions

9. Flood Risk

9.1. Consultants JBA Consulting have carried out a joint Strategic Flood Risk Assessment for Manchester, Salford and Trafford councils, the results of which have now been published.

9.2. Planning Policy Statement 25: Development and Flood Risk indicates that a risk-based Sequential Approach should be applied at all stages of the planning process, with the aim to steer new development to areas at the lowest probability of flooding. The SFRA looks at different sources of flooding, particularly fluvial flooding, surface water flooding and groundwater flooding, together with the residual risk from canals overtopping or breaching, and any hydraulic interactions between the different sources of flooding. In addition, the severity of flood events is considered through different scenarios, such as the intensity or duration of storms or in terms of potential climate change.

9.3. In terms of fluvial flooding, Flood Zones are defined nationally by the Environment Agency. Flood Zone 1 is low probability, with a less than 1 in a thousand chance of a flood occurring in any given year. Where there are no reasonably available development sites in Flood Zone 1 then decision makers should consider reasonably available sites in Flood Zone 2 (medium probability, with between a 1 in a hundred and a 1 in a thousand chance of a flood occurring in any given year). Only when there are no reasonably available sites in Zones 1 and 2 should sites within Flood Zone 3a (high probability, with a greater than 1 in a hundred chance of a flood occurring in any given year) or Flood Zone 3b (the functional floodplain) be considered, although some uses are incompatible with Flood Zone 3, and some (in Flood Zones 2 and 3) require further exploration by a developer, through an application of an Exception Test and the production of a site specific Flood Risk Assessment (FRA).

9.4. PPS25 provides guidance as to when an Exception Test would be required to explore flood risk issues and, by way of a site-specific Flood Risk Assessment, whether a particular development can be safely brought forward. For the purposes of Flood Risk Assessment residential development is classed as a More Vulnerable use and an Exception Test would be required for development in Flood Zone 3a.

9.5. In addition to fluvial flooding, all potential sites should be considered with regards to other sources of flooding, such as groundwater flooding or surface water flooding.

9.6. Manchester City Council has prepared a Flood Risk Appraisal of the Core Strategy, using the SFRA and PPS25. This follows the Sequential Approach in order to show whether the proposed scale and distribution of all types and levels of development can be accommodated without being subject to, or leading to, unacceptable levels of flood risk.

9.7. The SHLAA is not an allocation process and no actual housing sites are allocated in the Core Strategy, only general locations. The Appraisal report considers that, given the policy context, and other relevant evidence such as the relatively small size and highly urbanised nature of the City and the scale of development proposed, there is little land available for development that will not be required over the fifteen years of the Core Strategy. As a result the sequential approach to different sites is not particularly relevant to Manchester if the scale of development planned for is to be achieved. The sequential approach to flood risk will be applied, but given the circumstances outlined above, this will primarily relate to the careful consideration of uses, layout, design and potential mitigation measures for development proposals.

9.8. The report considered that, given the policy context, and other relevant evidence such as the relatively small size and highly urbanised nature of the City, there is little land available for development that will not be required over the fifteen years of the Core Strategy. As a result the sequential approach to different sites is also not relevant to Manchester if the scale of development planned for is to be achieved. As such the sequential approach to flood risk will be applied where possible, but given the circumstances outlined above, careful consideration of the uses, layout, design and potential mitigation measures will be particularly important.

9.9. This approach has already been taken at sites In West Gorton where new buildings will be set at a minimum of 150mm above finished external ground levels, oversized manholes to the highway drainage are planned and cellular underground storage structures will be incorporated.

9.10. The different types and extents of flood risk affecting the Strategic Housing Location in the Core Strategy are shown on the plans contained in the SFRA, with full details contained in the spreadsheets and plans in Annex 1 of the Core Strategy Flood Risk Appraisal.

9.11. The Strategic Housing Location within the Core Strategy is affected by surface water flood risk. The degree of susceptibility varies from High to Intermediate to Low susceptibility across the area, as shown on SFRA plans SS_4.2_C and F.

9.12. The Strategic Housing Location within the Core Strategy is affected by fluvial flood risk from the rivers Irk, Moston Brook, Medlock and Corn Brook and other smaller watercourses; different parts are affected to different extents illustrated by flood zones 2, 3a and 3b and shown on SFRA plans FL_1.2_C and F.

9.13. The Strategic Housing Location is not affected by groundwater flood risk (including groundwater rebound) as shown on SFRA plan GW_2.1.

9.14. A number of larger housing sites (many of which are now contained within the Strategic Housing Location) were assessed in the SFRA, and a Flood Risk Balance Sheet created, which provides a short summary of the risk assessment and the characteristics of that risk and its likely mitigation. It is intended to help planning authorities facilitate the Exception Test and demonstrate the acceptability and soundness of the proposed development sites. The results are set out in Appendix 9.

9.15. None of the sites assessed through the SFRA were considered to have prohibitive development issues in terms of flood risk, although West Gorton, Irk Valley, Holt Town and Lower Medlock Valley (all within the Strategic Housing Location) were identified as being at significant risk of flooding, and site layout, design and uses would therefore require careful consideration.

9.16. Work has also been carried out to assess the extent to which the smaller Additional Sites identified through the SHLAA outside of the Strategic Housing Location fall within Flood Zones 2 and 3. The results of this are included at Appendix 10 and indicate that on a pro-rata basis around 1730 potential housing units fall within Zones 2 and 3, of which some 154 are within the five years supply.

9.17. Three of these sites have had Flood Risk Assessments prepared recently in conjunction with planning applications and mitigation measures suggested where appropriate. Applications for further new housing on sites affected by flooding will be expected to be supported by site specific Flood Risk Assessments (FRAs) having regard to all relevant guidance including the SFRA.

9.18. It should be noted that the SFRA is a point-in-time document, which will be updated at appropriate points in the future, to reflect changed circumstances or policy context, or new information in relation to flood risk that may become available. In 2010, the EA issued further flood risk guidance through the Maps for Surface Water Flooding, which augment but do not replace the Areas Susceptible to Surface Water Flooding maps which were used in the SFRA; the Maps for Surface Water Flooding have not been used in the current version of the SFRA, but would be available for any site-specific Flood Risk Assessments.