



# Infrastructure Delivery Plan Review (October 2018)



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# Glossary

**Community Infrastructure Levy (CIL)** – The Community Infrastructure Levy is a levy on development that local authorities in England and Wales may put in place to help deliver infrastructure to support the development of their area.

**Infrastructure Delivery Plan (IDP)** – Identifies the existing social, transport and utilities infrastructure within the Legacy Corporation area over the period 2014 to 2031. It is based on publicly available information and consultation with the four boroughs and infrastructure providers.

**Legacy Corporation's Legacy Communities Scheme (LCS)** – The Legacy Communities Scheme sought permission for the long-term development of five new neighbourhoods within the Queen Elizabeth Olympic Park. Planning Application Reference: 11/90621/OUTODA

# 1. Introduction

## 1.1. Introduction

The Legacy Corporation adopted both their Local Plan and Community Infrastructure Levy (CIL) Charging Schedule in 2015. As part of the evidence base for both documents the Legacy Corporation produced an Infrastructure Delivery Plan (IDP). The Legacy Corporation are currently reviewing both their Local Plan and CIL Charging Schedule to reflect the current context and ensure that the policies and charging schedule reflect the levels of change and development that has taken place since these documents were adopted. As part of the process of reviewing the Local Plan and CIL Charging Schedule, the IDP has been reviewed to assess the current infrastructure need within the Legacy Corporation area.

## 1.2. Context and Aims

The London Legacy Development Corporation (Planning Functions) Order 2012, effective from 1 October 2012, granted the Legacy Corporation the full range of planning functions, including those of plan making. In becoming a local planning authority, the Legacy Corporation has taken on the planning functions of the Olympic Delivery Authority (ODA), the London Thames Gateway Development Corporation (LTGDC) and the London Boroughs of Hackney, Newham, Tower Hamlets and Waltham Forest for the land within its area. Since that time the Legacy Corporation has been the local planning authority, receiving and determining all planning applications made within its area and exercising its other planning responsibilities, including those in relation to planning enforcement matters, listed buildings and conservation areas.

Evidence on future infrastructure and associated funding required to support growth over the Local Plan period underpins the review of the Legacy Corporation Community Infrastructure Levy (CIL) charging schedule, as set out in CIL Regulations 2010 (as amended) and relevant government guidance.

The evidence provided by the IDP review is relevant to the review of the Legacy Corporation CIL Charging Schedule. The first stage of this review is the publication of a revised charging schedule known as a 'Preliminary Draft Charging Schedule' for public consultation. This proposes changes to the current CIL charges. This is also supported by an area wide economic viability assessment which, alongside the evidence of infrastructure need are intended to show that an appropriate balance has been struck between funding of infrastructure from CIL and the economic viability of development across the Legacy Corporation area as a whole.

## 1.3. Approach

This Infrastructure Delivery Plan Review takes the previous IDP report as its starting point as much of this assessment and information remains pertinent. The [LLDC Infrastructure Delivery Plan \(2013\)](#) remains as a relevant document in many respects. This update has taken range of information into account in reaching its conclusions including:

- Consultation with partner organisations, including the four boroughs (London Boroughs of Hackney, Newham, Tower Hamlets and Waltham Forest) and a range of other infrastructure providers. Details of this are set out in the [Early Engagement Consultation Report](#).

- Evidence of changing circumstances through monitoring of Local Plan key indicators, as reported annually in the Legacy Corporations ‘Planning Authority Monitoring Reports’.
- Specific relevant evidence studies commissioned as part of the review of the Local Plan, including:
  - Population Report: Profile & Forecasts (March 2018)
  - Combined Economy Study (March 2018)
  - Housing Requirement Study (March 2018)
  - Transport Study (June 2018)
  - School and School Place Review (September 2018)
 These and other evidence studies and reports related to the Local Plan Review can be found on the Legacy Corporation [website](#).
- A range of other evidence that is quoted as relevant in the main body of this report.

Account has also been taken of updated planning policy within the draft New London Plan (November 2017) (with subsequent proposed minor modifications) and the new Planning Policy Framework (July 2018).

This reviewed IDP builds on the work from the previous Infrastructure Delivery Plan (IDP) report and provides an update on existing and planned social, transport and utilities infrastructure within the Legacy Corporation area over the plan period. This report is based on publicly available information and consultation with the four boroughs and infrastructure providers. In the period up to the adoption of the Draft Revised Local Plan and the revised CIL Charging Schedule, this document, and related infrastructure lists, will be updated in response to new information on infrastructure projects being made available through formal and informal consultation and any new evidence that otherwise becomes available. The IDP Infrastructure List and the related Infrastructure (Regulation 123) List, will also continue to be reviewed and updated annually after this to ensure that it remains up to date.

#### 1.4. Report structure

This report is structured as follows:

- Section 2 sets out the growth anticipated within the Legacy Corporation area over the Local Plan period to 2036;
- Section 3 considers a range of infrastructure types that are categorised as ‘social infrastructure’;
- Section 4 considers transport;
- Section 5 considers hard infrastructure and utilities (energy, water, sewage, waste and flood risk); and
- Section 6 sets out the funding requirements identified through the IDP Infrastructure Long List, funding that has been identified and the resulting infrastructure funding gap.

## 2. Anticipated Growth in the Legacy Corporation Area

### 2.1 Introduction

Since the adoption of the Legacy Corporation Local Plan and Community Infrastructure Levy (CIL) Charging Schedule, the context in the Legacy Corporation area has changed as development has taken place and new schemes have come forward. As part of the review of the Legacy Corporation's Local Plan the Legacy Corporation have produced a range of evidence-based information which reflects how the area has developed and continues to develop.

### 2.2 Population and economy

The Legacy Corporation have commissioned and produced a range of evidence-based studies and documents, the findings of these documents create a picture of the current context in the Legacy Corporation area and provide an informed view on how the area will develop during the plan period.

The Legacy Corporation Population Projections Report (March 2018) provides an in-depth analysis of the current population of the Legacy Corporation area. The population projections associated with the Local Plan (adopted 2015) were for the population to reach 55,000 in the Legacy Corporation area over the plan period to 2031. However, the population of the area has more than doubled since the Plan was adopted, with the population of the area in 2017 already reaching 24,004 residents, as shown in Table 2.1. The level of development that has already taken place, combined with the level of development now planned, with sites coming forward since the Plan's adoption, and the increased housing target for the Legacy Corporation area in the Draft New London Plan (November 2017), has informed a revised population projection based on an in-depth population analysis. The findings of this in Table 2.1 show that by the end of the plan period, the Legacy Corporation population could increase significantly beyond that originally, to 106,533 residents (Population Report: Profile & Forecasts (March 2018)).

Table 2.1: Legacy Corporation Population Projections

| Year | Population Projections |
|------|------------------------|
| 2017 | 24,004                 |
| 2020 | 37,662                 |
| 2025 | 66,563                 |
| 2031 | 93,800                 |
| 2036 | 106,533                |

In addition to the effect that the scale of development in the area has had on the residential population, the development of office and employment space and improved infrastructure and leisure opportunities within the area have had an impact on the local economy. To further understand this the Legacy Corporation have produced a Combined Economy Study (March 2018). This document shows an increase in the level of qualifications amongst the population of the area, as well as an increase in employment and a decrease in unemployment, economic activity amongst the local population of the area has increased when compared to 2011 census data. The report shows that between 2011-2016 employment in the Legacy Corporation grew by 103%. This growth is set to continue as developments come forward which include large areas of employment space, for example at the International Quarter London in Stratford and at Here East in Hackney Wick.

This evidence shows that there are increased demands on the Legacy Corporation area's infrastructure, and these will continue to increase throughout the plan period. The following sections identify future infrastructure need and projects which will continue to enable the current level of development to take place in the Legacy Corporation area.

## **3. Social Infrastructure**

### **3.1. Introduction**

This section covers education (primary, secondary and early years), healthcare, open space and play space, sport facilities and libraries and community facilities. This section continues to build upon the previous IDP report using information produced as part of the evidence base during the process of reviewing the Local Plan, as well as providing an update on infrastructure that has been delivered in the period since 2013.

This report also follows on from the previous report in its assessment in that it considers publicly accessible social infrastructure and facilities. Similarly, to the previous report it is acknowledged that some people will also use private providers for services such as education and leisure, and this may reduce demand for public or voluntary sector facilities.

### **3.2. Primary and secondary education.**

Since the adoption of the Legacy Corporation's Local Plan in 2015, there has been significant development in relation to primary and secondary education in the Legacy Corporation area. In the lead up to the adoption of the Legacy Corporation's Local Plan the Legacy Corporation had a program of identified school sites delivery set out through arrangements such as the Legacy Communities Scheme (LCS) planning permission. These sites were due to be delivered over an extended period, in line with the development of new housing and their ensuing communities in the area. In the period since 2015 the Legacy Corporation have accelerated delivery of those schools, with three new schools having been delivered in this period.

In addition to the acceleration of school delivery in the Legacy Corporation area, the area has also seen an increase in its population, driven by housing delivery and the benefits of improved infrastructure in the area. Since the Local Plan was adopted, the population of the Legacy Corporation area has doubled. Therefore, the Legacy Corporation undertook, as part of the work for the Local Plan review, a population study, looking at the profile of both the current population and providing up to date projections for the future population of the area. These updated population projections see the profile of the area changing significantly in the period to 2036. The updated population projections, the delivery of schools in the Legacy Corporation area in the period since the Local Plan was adopted and the interaction between the Legacy Corporation area and the four boroughs' school planning areas, where catchment areas are often cross boundary, has led to the Legacy Corporation producing a School and School Place Review (September 2018) which includes both primary and secondary school provision. This review was produced in consultation with the four boroughs, using the Legacy Corporation's updated population projections and information on existing and planned school provision in the Legacy Corporation area. The information within this report follows the findings of this review.

#### *Existing Provision*

The Legacy Corporation currently includes two all through schools; Chobham Academy and the Bobby Moore Academy, three primary schools, one secondary school and one sixth form college. Table 3.1 below sets out the existing primary and secondary schools provision within the Legacy Corporation area.



**Table 3.1: Existing schools provision in the Legacy Corporation Area**

| Existing Schools                            | Area                                | Borough       | Notes   |
|---|-------------------------------------|---------------|---|
| Chobham Academy                             | East Village                        | Newham        | All-through school, capacity for 1,800 students   |
| London Academy of Excellence                | Stratford High Street               | Newham        | Sixth-form college, free school   |
| East London Science School                  | Three Mills                         | Newham        | A free school in temporary accommodation, providing secondary educations for up to 240 pupils (relocating to nearby permanent, larger Stephenson Street site in early 2020's) |
| Gainsborough Primary School                 | Hackney Wick                        | Hackney       | Recently expanded to three-form entry   |
| Carpenters Primary School                   | Stratford                           | Newham        | Recently expanded to three-form entry, in the future there may be the potential to redevelop and further expand this schools as part of on-going regeneration in the area.    |
| Bobby Moore Academy Primary School          | Sweetwater                          | Tower Hamlets | Primary School opened in September 2018 for 60 reception places   |
| Bobby Moore Academy Secondary School        | Stadium Island                      | Newham        | Secondary School opened in September 2018, 180 Year 7 places.   |
| Mossbourne Academy Riverside Primary School | Hackney Wick, adjacent to Here East | Hackney       | Three-form entry primary school   |

The four boroughs all currently have a surplus in primary school provision, with some boroughs, such as Hackney and parts of Tower Hamlets, showing a reduction in demand for primary school places. Table 3.2, taken from the School and School Place Review (September 2018), sets out an overview of the current and potential future number of Reception places in relation to projected demand across the four boroughs:

**Table 3.2: Overview of current and potential future number of Reception places in relation to projected demand**

| Pupil Planning Area              | Existing capacity (PAN 2018/19) | Capacity by 2022/23 | Reception place surplus/deficit in 2022/23 | Potential Reception capacity by end of Plan period (2036) |
|----------------------------------|---------------------------------|---------------------|--|---|
| LB Hackney – Kings Park/Wick     | 390                             | 390                 | 130  | 420   |
| LB Newham – Stratford            | 750                             | 890                 | 379  | 950   |
| LB Tower Hamlets – Bow           | 510                             | 510                 | 100  | 570   |
| LB Waltham Forest – Leyton South | 480                             | 480                 | 50   | 480   |
| <b>Total</b>                     | <b>2,130</b>                    | <b>2,270</b>        | <b>+650</b>                                | <b>2,420</b>  |

All four boroughs face challenges in relation to secondary school provision, with deficits already identified in relation to Year 7 places, which are currently predicted to continue until the end of the plan period in 2036. The London Boroughs of Tower Hamlets and Waltham Forest have specified new secondary school or expansion plans, whilst the London Boroughs of Hackney and Newham are currently in the process of planning how to address the Year 7 deficits in their boroughs. In addition to planning for new schools and the expansion of existing schools, boroughs can also introduce ‘bulge’ classes, which are a temporary measure to provide short-term increased capacity until other capacity expansion plans are put in place, these ‘bulge’ classes have not been considered as part of the Legacy Corporation review due to their temporary nature. A full picture of the long term secondary capacity of the four boroughs will become clearer when the London Boroughs of Hackney and Newham finalise their future planning for secondary provision in their boroughs, more detail on existing and planned schools in the four boroughs can be found within the School and School Place Review (September 2018).

Catchment areas vary between primary school provision and secondary school provision, as can be seen in the different pupil planning areas identified in tables 3.2 and 3.3. Primary school catchment areas are much smaller for practical reasons such as those related to the age of children that attend and their ability to travel. Catchment areas are much wider for secondary school attendance, as it is expected that older children can travel further to attend school, or they may be attending more specialist institutions, this is recognised by the boroughs identifying the pupil planning areas for secondary schools as borough-wide. However, it is difficult to get an understanding of cross boundary attendance, all the boroughs have secondary schools where attendees not only come from within the borough, but travel from outside, and they also have pupils who will travel from their borough to another to attend school, as the education authority are only required to plan for the population within their boundary. Therefore, whilst the study produced by the Legacy Corporation considers the boroughs’ capacity in addition to the capacity of the Legacy Corporation area to understand wider capacity, acknowledging that secondary school age children in the Legacy Corporation may travel outside the boundary of the area to attend school, it does not look at wider regional capacity.

**Table 3.3: Overview of current and potential future number of Year 7 places in relation to projected demand**

| Pupil Planning Area       | Existing capacity (PAN 2018/19) | Capacity by 2022/23 | Year 7 place surplus/deficit in 2022/23 | Potential Year 7 capacity by end of Plan period (2036) |
|---------------------------|---------------------------------|---------------------|---|--|
| LB Hackney – Borough-wide | 2,589                           | 2,589               | -97                                     | 2,589  |
| LB Newham – Borough-wide  | 4,677                           | 4,677               | -670                                    | 4,767  |
| LB Tower Borough-wide     | 3,233                           | 3,203               | -167                                    | 3,553  |
| LB Waltham Borough-wide   | 3,090                           | 3,300               | -79                                     | 3,630  |
| <b>Total</b>              | <b>13,589</b>                   | <b>13,769</b>       | <b>-1,013</b>                           | <b>14,539</b>  |

*Planned Provision*

Site allocations within the Legacy Corporation’s Local Plan identify four sites that would be appropriate for the development of additional schools, these are shown below in Table 3.4. Those identified at SA1.4 (Sugar House Island) and SA4.2 (Neptune Wharf) have planning permissions in place, with the site at Sugar House Island currently under development. London Borough of Tower Hamlets is working with the Legacy Corporation with regards to the future delivery of the Neptune Wharf school.

**Table 3.4: Planned schools provision in the Legacy Corporation area**

| Planned Schools                                  | Secured Through                                       | Site Allocation | Notes   |
|--|---|-----------------|---|
| Potential for Primary School at Rick Roberts Way | No existing planning permission                       | SA3.6           | Identified in 2015 Local Plan as potential school site. May be required in second half of Plan Period. Requirement to be identified at the time based on monitoring of need |
| Bromley-by-Bow                                   | No existing planning permission                       | SA4.1           | Two-form entry primary school   |
| Sugar House Island                               | Existing planning permission REF:12/00336/LTGOUT/LBNM | SA4.2           | Two-form entry primary school   |
| Neptune Wharf                                    | Existing planning permission REF:12/00210/OUT         | SA1.4           | Three-form entry primary school   |

*Future Provision*

Across the pupil planning areas of the four boroughs which serve the Legacy Corporation area, by the end of the plan period, the total primary school reception year capacity is expected to be 2,420 pupils, as shown in Table 3.2. Current estimates expect that at the same time reception year pupil generation within the Legacy Corporation area would be between 990-1,350 (further information around the methodology used to generate this data can be found in the School and School Place Review (September 2018)). Current and planned schools within

the Legacy Corporation area have capacity to provide at least 600 Reception primary school places by 2022/23, catering for a significant level of demand for Legacy Corporation residents. Residents of the Legacy Corporation area also included within catchment areas for some primary schools outside of the planning area, these combined shows that there is capacity to provide for future primary demand within the Legacy Corporation area and the four boroughs. The overall wider area continues to show a surplus until the end of the plan period, however it should be noted that this surplus is reflective of these wider areas, and it is not clear how many of these places are expected to serve Legacy Corporation residents. Table 3.5 below sets out existing capacity and any potential future increases in capacity in existing schools within the Legacy Corporation area.

The information in table 3.3 shows that the capacity across the four boroughs' pupil planning areas for secondary school provision is currently expected to be 14,539 places by the end of the plan period. It is estimated that Year 7 pupil generation will be 640-1,080 (as per the findings in the School and School Place Review (September 2018)) within the Legacy Corporation area by 2036. Within the Legacy Corporation area there will be the capacity for 480 Year 7 places by 2022/23, which will cater for a significant level of secondary school place within the Legacy Corporation area, with the potential for pupils to travel more widely within the four boroughs to attend school.

Due to the nature of the data available, the School and School Place Review (September 2018), used two different methodologies in estimating future place demand. This has resulted in a large variance between the lower and upper estimates, which means that there will be a continued need to closely monitor the population for both primary and secondary school demand within the area. It may be that the lower estimates in relation to the population of school age children prove to be more realistic, as the area is still developing and new communities move in, it is challenging to predict need, however the use of two methodologies providing two different scenarios of both a high increase and a lower increase are useful in providing an initial framework for planning. As the area develops the need for different schools may need to be revised, therefore this report includes all the potential opportunities for capacity expansion, however during the plan period it may be identified that these are not all appropriate, it is important to ensure that a level of flexibility is maintained in order to reflect the emerging population of the area.

**Table 3.5: Overview of current and potential future numbers of school places in relation to projected demand**

| School                                 | Existing Capacity (PAN 2018/19) | Capacity by 2022/23 |
|--|---------------------------------|---------------------|
| Bobby Moore Academy (Primary)          | 60 Reception places             | 60 Reception places |
| Bobby Moore Academy (Secondary)        | 180 Year 7 places               | 180 Year 7 places   |
| Carpenters Primary School              | 60 Reception places             | 60 Reception places |
| Chobham Academy (Primary)              | 90 Reception places             | 90 Reception places |
| Chobham Academy (Secondary)            | 180 Year 7 places               | 180 Year 7 places   |
| East London Science (Secondary)        | 120 Year 7 places               | 120 Year 7 places   |
| Gainsborough Primary School            | 60 Reception places             | 90 Reception places |
| Mossbourne Riverside Academy (Primary) | 90 Reception places             | 90 Reception places |

### 3.3. Early years

Early years refers to provision in place for children under the age of five years old. All parents of 3 and 4-year-old children are entitled to 15 hours of free childcare, with working parents entitled to 30 hours free childcare for the same age group, for 38 weeks of the year. This is applied until children reach the compulsory school age, which is the term following their fifth birthday, at which point it is expected that they attend primary school. Whilst early years places educational establishments are available for children under 5, it is not compulsory for children below this age to attend. Free early education places are available from a range of Ofsted registered providers, including public, private and voluntary sector organisations. These can be at nursery schools or nursery classes provided at a primary school, children's centres, day nurseries, play groups as well as pre-schools and child minders.

Unlike with primary and secondary education, the public sector is often not the main provider of this provision within their area, with demand being fulfilled by the private sector in many cases. Therefore, whilst this report focuses on public sector provision, it should be acknowledged that it is expected that a significant level of demand will be met by the private sector. This is factored into planning policy, with requirements around D1 floorspace and appropriate retail space to enable early years providers to meet the demand in the area. Therefore, whilst it is possible to monitor planned and future provision from the public sector and through some planning agreements and site allocation requirements, it is difficult to truly understand the level of private and voluntary sector provision that may come forward to meet part of this requirement.

#### *Existing Supply*

Within the Legacy Corporation area there are a range of nurseries and day care centres managed by private sector providers, an example of this is the Little Bear's Centre in East Village. There are also nurseries and children's centres attached to the Carpenters Primary School, Gainsborough School and a 52-place nursery at Chobham Academy. The Carpenters' and Docklands Centre also includes a nursery.

- The London Borough of Hackney now manage their schools and early years provision through the Hackney Learning Trust, they list 21 children's centres, such as that attached to the Gainsborough School in the Legacy Corporation area, which provide childcare and a range of other activities.
- The London Borough of Newham includes 7 nursery schools and nursery classes in 56 junior, infant and primary schools across the borough.
- The London Borough of Tower Hamlets held a consultation in 2016 focused on the Integrated Early Years Service in the borough, the borough currently lists 12 children's centres and 6 nursery schools.
- The London Borough of Waltham Forest have four children and family centres and there are 113 Ofsted registered nurseries in the borough, many of these nurseries are provided by the private sector.

#### *Planned Provision*

- The Legacy Corporation's LCS scheme include provision for nine nurseries, with an average of one per PDZ except for PDZ 12. The plans include two nurseries attached to primary schools and two co-located with walk-in health centres. The Section 106 agreement for the LCS schemes establishes triggers for the delivery of each nursery relating the number of residential units delivered.

- There is the potential for the final phase of Neptune Wharf, in addition to a primary school, to deliver a 1FE nursery school, there is a consent for a school at this location, and the London Borough of Tower Hamlets are working with the Legacy Corporation with regards to the future delivery of this site.
- The permission at Bromley-by-Bow South includes a 2FE primary school and children’s centre, which would serve children up to the age of three years old.
- The Authorities Monitoring Reports for the Legacy Corporation area for 2015/16 and 2016/17 show that over 14,891m<sup>2</sup> of D1 floor space was permitted during this period, whilst this covers usage such as community and healthcare facilities it also includes development of nursery space. Forthcoming schemes within the Legacy Corporation area continue to include D1 and retail floorspace which could accommodate nurseries if a private sector provider were to respond to a demand for nursery services.

*Future Provision*

The population of 0 – 4-year olds within the Legacy Corporation area was 1,385 when the Legacy Corporation Population Study was undertaken in 2017, it is expected that this will rise to 7,392 by the end of the plan period, as set out in Table 3.6. The previous IDP report assumed that 50% of these children would require nursery places, if this assumption carries forward then the demand for nursery places would be 3,696 by the end of the plan period in 2036.

Table 3.6: Projected population growth of 0-4-year olds over the plan period

| Year | Population of 0-4-year olds | Demand at 50% of population |
|------|-----------------------------|-----------------------------|
| 2017 | 1,385                       | 693                         |
| 2025 | 4,537                       | 2,269                       |
| 2031 | 6,597                       | 3,299                       |
| 2036 | 7,392                       | 3,696                       |

Currently there is a large amount of planned provision for the Legacy Corporation area that is yet to come forward as part of the LCS, with 9 nurseries due to be delivered through this scheme, and additional nurseries expected at Bromley-by-Bow South and Neptune Wharf, adding significantly to the provision in the area. This does not consider other schemes that are in the Legacy Corporation area that include D1 or retail space that would be appropriate to house nurseries, or those where this space is yet to be secured and have yet to go through the planning process. These have the potential to provide further significant increases in nursery provision in the area, driven by private sector response to demand.

As the new communities within the Legacy Corporation’s area are still developing, the population projections cannot predict exactly the shape of the future population of the area. It may be that the population of young children in the area does not increase as quickly as projected, also communities on the periphery of the area may choose to make use of early years provision outside the Legacy Corporation area, as there are nurseries and children’s centres very close on the other side of the planning area border. It may also be that parents choose facilities in the borough where they work, as some boroughs, such as the London Borough of Hackney, include parents working the borough within applicants for early year places. Therefore, it will be important to monitor demand closely throughout the Local Plan period, as well as ensuring that enough D1 and retail space appropriate for these types of usage are included within new development.

### 3.4. Primary healthcare

As with the previous IDP report, healthcare within this report focuses on primary healthcare facilities which are defined as incorporating general practitioner (GP) services and dental practices. In April 2013 Primary Care Trusts (PCTs) were replaced by Clinical Commissioning Groups (CCGs), who are responsible for the planning and buying of NHS healthcare across the areas that they manage. The CCGs that cover the Legacy Corporation area are:

- City & Hackney CCG
- Newham CCG
- Tower Hamlets CCG
- Waltham Forest CCG

#### *Existing provision*

There are currently three GP surgeries within the Legacy Corporation including the Trowbridge Practice in the Hackney Wick area, the Liberty Bridge Road Surgery at the Sir Ludwig Guttman Health and Wellbeing Centre and Lantern Health CIC – Carpenters Practice. In addition, there is East Village Dental providing dental services in East Village. There are GP surgeries and dental clinics outside of the Legacy Corporation area border that are very close to residents of the Legacy Corporation area, which residents will fall within the catchment of, or might be more convenient than those in the area. Therefore, whilst there will be a need for further facilities as the population of the area increases, the cross-boundary movement of service users should be acknowledged, and any facilities that are developed in the future should be done so in consultation with the relevant CCGs as health authorities in the area.

- City & Hackney CCG reported in their annual report 2014-15 that there were 43 GP practices in their area.
- Newham CCG have grouped GP practices into eight clusters that cover the borough, including 60 practices.
- Tower Hamlets CCG reported in their annual report 2017/18 that they include 36 GP practices in their area.
- Waltham Forest CCG have 42 GP practices listed on their website.

Many dentists provide both private services and NHS services, it can therefore be difficult to get a true understanding of capacity within NHS dental services.

#### *Planned Provision*

- The LCS scheme includes provision for a one stop primary care centre of approximately 2,554m<sup>2</sup> in PDZ4, which would include capacity for 6 GPs and 6 dentists, and two walk-in centres in PDZ 6 and 8, each of 645m<sup>2</sup> and accommodating 2 GPs and 2 dentists each. The Section 106 agreement for the LCS scheme includes the triggers for delivery of healthcare infrastructure related to the number of residential units completed on each PDZ. The previous IDP report highlighted that the LCS provision would, at that point, create an over-supply of primary healthcare space, and explained that a mechanism had been included for reviewing this space as part of the Section 106 agreement, based on population. As the population of the area is projected to continue to increase at a higher level than previously projected, it is expected that all the space set out in the LCS will be required. Any review would need to take place in consultation with the relevant CCGs to ensure need is being met.
- The Stratford Metropolitan Masterplan (2011) proposes 1,000-2,500m<sup>2</sup> new community and health space in the Greater Carpenters Estate.



- The Authorities Monitoring Reports for the Legacy Corporation area for 2015/16 and 2016/17 show that over 14,891m<sup>2</sup> of Use Class D1 floor space was permitted during this period, whilst this covers usage such as community and nursery facilities it also includes development of space for healthcare facilities. Forthcoming schemes within the Legacy Corporation area continue to include provision of D1 and retail floorspace which has the potential to accommodate new healthcare facilities where the CCGs require such space.

#### *Future Provision*

Since 2013, when the PCT model was abolished and replaced with the CCG model of service commissioning and management, there have been and continue to be changes in the way that the NHS manages their estates and services. Changes include increased access to GPs in evenings and at weekends, as well as proposals that primary care facilities should have an increase in the number of patients registered. This means that previous calculations in relation to demand for specific facilities are no longer appropriate.

The Legacy Corporation area includes planned facilities that will increase healthcare capacity within the area and will continue to review these, taking into account new facilities as they are delivered, the effects of population changes and the future requirements identified by the CCGs. The Legacy Corporation will work closely with the CCGs to support them in fulfilling their identified need around requirements for future facilities.

### 3.5. Sports and leisure, open space and play space

This section combines an analysis of sports and leisure facilities within the Legacy Corporation area with open space and play space provision. The Legacy Corporation benefits hugely from the facilities that it includes due to the legacy of the 2012 Olympic Games and through its location as part of the Lee Valley Regional Park. In the period since the IDP report, the legacy facilities and parklands have been reopened and are now operational for their post games usage, which presents a significant change to provision in the area. Many of these facilities are interrelated, being located within the Queen Elizabeth Olympic Park and the Lee Valley Regional Park, which has led to these areas being combined within this section rather than separated as within the previous report.

As part of the review of the Legacy Corporation Local Plan, the Legacy Corporation have produced an Open Space and Play Space Assessment (March 2018) which has assessed open space and play space provision within the Legacy Corporation area, this report also references sporting facilities in the area.

This IDP review focuses on public facilities, it is acknowledged that users have the choice to use private facilities that have not been included within this report.

#### *Existing provision*

There is a large existing provision of sporting and leisure facilities within the Legacy Corporation area, much of it related to the legacy facilities and spaces from the 2012 Olympic Games. The Legacy Corporation area existing provision includes facilities and locations set out below, for more detailed information on finer grain Open Space and Play Space provision in the area this is included within the Open Space and Play Space Assessment (March 2018):

- Queen Elizabeth Olympic Park and parklands, including a range of spaces such as outdoor gym equipment and the Tumbling Bay playground.
- The London Stadium and the London Marathon Community Track
- The Copper Box Arena – a multi-use sports arena with four sports courts managed by Greenwich Leisure Limited (GLL)
- Lee Valley Hockey and Tennis Centre – four indoor tennis courts, six outdoor tennis courts and two artificial hockey pitches – owned by Lee Valley Regional Park Authority
- Lee Valley VeloPark - owned and managed by the Lee Valley Regional Park Authority
- Aquatics Centre – managed by GLL
- Three Mills Green
- Lee River Walk
- Chobham Academy Sports Ground
- The Greenway

The previous report included information on provision of sports and leisure facilities within the boroughs, as well as wider provision of open space and play space, recognising the interaction between Legacy Corporation area residents and their usage of and access to facilities outside the planning area. Below is an update to this information:

- The London Borough of Hackney list 7 leisure centres, which is a reduction on the 10 centres included in the previous reports, four of these centres include swimming pools. The borough has 58 parks and green spaces totalling 282, this

includes the largest concentration of football pitches in Europe at Hackney Marshes. Victoria Park is close to the Legacy Corporation area boundary, providing 227 hectares of publicly accessible open space. As part of the borough's work in relation to their local plan, an evidence base has been produced around open space and play space within the borough.

- The London Borough of Newham has four leisure centres run by Active Newham, there are 11 swimming pools in the borough across 5 sites, 18 sports halls with 15 of these based at educational or community centre locations and 53 tennis courts – 38 of which are accessible to the community. A Strategic Leisure Facility Needs Assessment was produced in 2017 which found that whilst there is a current surplus in swimming pool provision, there will be a future deficit, and identifies a deficit in Sports Halls which will continue to increase. Many of the Legacy Corporation facilities fall within the part of the area falls within the London Borough of Newham and their report includes these facilities, this is important to acknowledge when looking at the numbers of facilities set out in their report as both the Legacy Corporation and the London Borough of Newham count these facilities when looking at current and future provision within their planning areas. As part of the evidence base for the London Borough of Newham's Local Plan, a Community Strategy including an Open Space Assessment was commissioned in 2010. The study looked at overall provision of open space both across the borough and at ward level. It noted that Stratford and New Town ward had a provision of 1.21ha per 1000, and that areas around Stratford suffered from poor accessibility to parks and natural/semi-natural open space. The London Borough of Newham has also recently published a Playing Pitch Strategy in 2017 which sets out the pitch provision across the borough.
- The London Borough of Tower Hamlets has 7 leisure centres that are run by GLL. As part of their Local Plan evidence base a Parks and Open Spaces Strategy (2017) was produced. This document follows London Plan and Fields in Trust standards to assess PPG17 open space typologies including outdoor sports facilities. The study includes up-to-date assessments of key open spaces within and outside of the LLDC area (e.g. Victoria Park). At a ward level using the standard of 1.2ha/1000 people, Bow East is identified as having sufficient levels of open space but connectivity to open spaces is reduced by strong lines of severance arising from the A12, and the River Lea/Three Mills Wall River. A recommendation is for additional small open spaces and pocket parks to be provided. Bromley North is identified being deficient in open space with a high degree of severance reducing connectivity to spaces.
- The London Borough of Waltham Forest list 5 leisure centres and 1 gym, as well as 6 bowling and putting greens, 5 cricket pitches, 12 multi-sports pitches and 4 parks with tennis courts. Many of these facilities are graded for quality with the majority graded at A-A+. An Open Space Strategy was prepared by the borough in 2010 and gives an overview of all PPG17 open spaces as well as civic and market squares. At a ward level, the unrestricted access to open space (all typologies) per 1,000 population relating to Leyton and Leytonstone, close to the border with the Legacy Corporation area, highlight a lower provision in these areas of 0.82ha per 1000 and 0.38ha per 1000 respectively, compared to the borough-wide figure of 4.16ha per 1,000 people. North of the Legacy Corporation

area the recently opened 211ha Walthamstow Wetlands is a nature reserve that provides a further area of open space near the Legacy Corporation area.

#### *Planned provision*

The facilities that form the legacy of the 2012 Olympic Games have all been transformed for their post games usage and are now open for regular usage. Due to the dense concentration of these facilities within the Legacy Corporation area, other than the potential for a further indoor tennis court at Eton Manor, there are not further facilities planned, as these facilities are expected to meet not only the Legacy Corporation area need but wider strategic need for London and, for some specialist sports facilities, the south east.

There is a significant amount of publicly available open space and play space within the Legacy Corporation area and close to the planning area boundaries in the London Boroughs of Hackney and Waltham Forest. In addition to this, significant amounts of publicly accessible open space and play space have been secured through planning permissions and Section 106 agreements, which should continue to meet the needs of the developing population and communities in the area.

The LCS scheme will provide 3,606m<sup>2</sup> D2 (leisure) floorspace, while Stratford City has provided a significant portion of its 38,424m<sup>2</sup> of leisure floorspace. In addition, the Stratford City Section 106 includes obligations around the provision of open space, this has included delivered space such as the Cascade Parklands, Crescent Park, Victory Park and Long Park.

New public open space will be delivered at Bromley-by-Bow North (providing an additional 0.6ha), at Sugar House Lane (0.8ha), at Bromley-by-Bow South (0.5ha), and at Hackney Wick (0.2ha). These are to be funded by the developers related to each site and are included within provisions of relevant Section 106 agreements.

Other schemes such as those included with the LCS and at Neptune Wharf are also required to bring forward public open space as part of their planning obligations, as well as child play space. The Stratford City Section 106 agreement secures provision for 10ha of open space and various play areas. Elsewhere the Bromley-by-Bow South Section 106 agreement indicates that the scheme includes 1,093m<sup>2</sup> play space provision.

Permitted schemes within the Legacy Corporation area include on-site child play space to meet the needs arising from development. As part of the LCS scheme a total of 29 children's play areas are proposed, comprising of 17 doorstep playable spaces, 5 local playable spaces, 3 neighbourhood playable spaces, and three youth play spaces, providing a total of 14,210m<sup>2</sup> of play space. In addition, three playing fields have been or are planned to be co-located with schools, local play space at PDZ5.5 and youth play space at PDZ12.2. It is assumed that, as due to the age of users, play space should be provided close to housing, this provision will only serve residents of the LCS schemes, though some of the play space for older children may be used by children living elsewhere. There are a range of facilities for community sports and activities in current and new schools throughout the area, including the Mossbourne Riverside Academy and plans to include this form of space at the school at Bromley-by-Bow.

#### *Future demand*

The Legacy Corporation currently has, and will continue overall to have, a surplus in specialist sports facilities and general sports and leisure facilities, despite the increased population projections, there are few areas that are so well served by such facilities. The main challenge for many is access in relation to local connectivity, rather than provision,

and improving local connectivity continues to be a priority for the Legacy Corporation, as highlighted by the transport section of this report.

The Open Space and Play Space Assessment (March 2018) found that overall the Legacy Corporation area benefits from access to a wide range of quality open space and play space provision, specifically highlighting those provided by the Queen Elizabeth Olympic Park. It found that there was a good variety of different types of spaces, and that in the north of the area high levels of provision were coming forward in line with new developments and that strategic development still to come forward had the opportunity to further increase and enhance provision.

Recommendations include the improvement of local linkages, which continues to be a focus for the Legacy Corporation as the strategic infrastructure in the area creates barriers to movement in some cases, and improvements to enhance natural surveillance. Continuing to apply Local Plan policy to new developments to ensure that appropriate open space and play space provision continues to come forward. It is also acknowledged that whilst provision is good throughout the Legacy Corporation area, this is relative and there is less provision in the south of the area than the north.

This review has no recommendations for further areas of open space and play space in addition to those already coming through new development, therefore, due to the projected on going surplus of open space, play space and sports and leisure facilities in the area, Local Plan policy will continue to be applied to ensure proportional provision is secured in line with the increasing population and new communities included in each new development, to ensure a high quality of life and enjoyment for both new and existing residents.

### 3.6. Other community facilities

Other community facilities include those facilities that the community may have a demand or use for. The main areas considered as part of this report are flexible community space and libraries. As the area continues to develop there may be other forms of community facilities that are required that have yet to be foreseen, any additional need for further types of community facilities will be captured by annual updates to the Regulation 123 Infrastructure List and IDP Projects List.

This analysis of existing and planned facilities, whilst focusing on those within the Legacy Corporation area, also provides an update on provision within the four boroughs, which may also be open for access to Legacy Corporation residents, as set out in the previous IDP report. While it is acknowledged that some business premises, café's or other similar commercial or charitable outlets may also provide a service or space for the community, these types of spaces are not factored in to this assessment.

#### *Existing provision*

There are a range of existing community facilities within the Legacy Corporation area, these include:

- Carpenters Community Centre and Carpenters' and Docklands Centre
- The Old Baths at Eastway – this facility is currently going through a program of improvement led by Hackney Council.
- Trowbridge Centre
- Hub 67 and The Yard Theatre
- The Timber Lodge and Podium Café
- Sir Ludwig Guttman Health and Wellbeing Centre – includes space for community usage.
- St. Mary of Eton Church Hall
- St. Columba barge
- The ViewTube

As part of Section 106 obligations for a range of developments that have taken place in the area, there are requirements for some developments to provide reduced price or free space to the community in the area for a specified number of days or a portion of the year, an example of this is the provision for community usage of event space in the converted International Broadcast Centre that is now Here East. The East Bank plans for the Stratford Waterfront area include a community focus on the use of their spaces and in their programmes, which will increase provision within the area.

Below is updated information on the provision of community facilities within the boroughs, recognising the interaction between Legacy Corporation area residents and their usage of and access to facilities outside the planning area:

- The London Borough of Newham has 10 libraries and 30 community centres, this is a reduction both on number of libraries and community centres by 1 in each case since the last IDP report.
- The London Borough of Tower Hamlets have moved away from the Idea Store model, and whilst the borough is maintaining those that have already been delivered there are no plans to develop more of these facilities. There is no update on floorspace since the last IDP report.
- The London Borough of Waltham Forest continues the program of investment in libraries in the borough that was set out in the last IDP report.
- The London Borough of Hackney, according to more recent Infrastructure Delivery Plan updates produced by the borough, has an average floorspace of

37m<sup>2</sup> per 1,000 population, which continues to equate to a surplus of provision. The borough manages 72 community halls and 16 community flats.

#### *Planned provision*

The LCS scheme included provision of up to 2,423m<sup>2</sup> flexible community space, up to 1,258m<sup>2</sup> flexible cultural space, up to 1,258m<sup>2</sup> flexible cultural space, up to 3,606m<sup>2</sup> of flexible leisure space and a library. These floorspaces were based on the expected demands from new communities located in the relevant zone to the community spaces. However, across the Legacy Corporation area there is evidence, through the development and use of local websites such as Yonder, of new and existing communities using spaces outside those included within their immediate community. Therefore, in cases where there may be extra capacity, this can be used by communities across the area.

Several development zones that form part of the LCS are yet to come forward, and so there is little further information other than that included within the LCS planning application and permission. However, within the Hackney Wick Fish Island SPD further clarification is given around provision at two of these sites, the SPD sets out that at the Eastwick development there will be up to 6,888m<sup>2</sup> of community (D1) floorspace, which includes a new primary school and nursery as well as the potential for other community facilities. At the Sweetwater development it sets out that there will be 2,423m<sup>2</sup> of flexible community space, 1,258m<sup>2</sup> flexible cultural space and 3,606m<sup>2</sup> flexible leisure space, with the development to include a new library. Two of the LCS zones have been replaced by the planned East Bank development in the Stratford Waterfront area and the UCL East proposals will bring a range of institutions to the area that will bring community usage and programmes within their proposed spaces.

The Bromley-by-Bow SPD sets out that as part of the new district centre this should include a community facility (e.g. a library) of around 1,200m<sup>2</sup>.

The Stratford Metropolitan Masterplan proposes 1,000-2,500m<sup>2</sup> of new community and health space in the Great Carpenters Estate.

The Authorities Monitoring Reports for the Legacy Corporation area for 2015/16 and 2016/17 show that over 14,891m<sup>2</sup> of D1 floor space was permitted during this period, whilst this covers usage such as healthcare and nursery facilities it also includes development of space for community usage.

#### *Future demand*

As part of Legacy Corporation planning policy, included in current and reviewed Local Plan policies, community space within the Legacy Corporation area is safeguarded to prevent the loss of these facilities. Applicants proposing new developments will need to demonstrate that they will be re-providing any such space as part of development proposals. Legacy Corporation policies also include requirements around providing future provision in new development proposals.

Currently there is a high level of planned provision that is yet to come forward across the major development sites within the Legacy Corporation area. These proposed spaces should provide a high level of provision over the plan period, however levels of community space developed will need to be monitored in relation to changes in the population of the area, as well as the demand for such space and the management requirements around these new spaces to ensure their long-term success in supporting the communities in the Legacy Corporation area. Legacy Corporation has policies that encourage and seek to secure community use/dual use of school premises in considering

proposals for new schools to achieve an efficient approach to space for general community activities and uses.



Table 3.7: IDP Project List Social Infrastructure Requirements

| Infrastructure Project  | Type of project                     | Status                             | Phasing                            | Delivery / other responsible agencies         | Information Source                                  | Borough       |
|---|-------------------------------------|------------------------------------|------------------------------------|---|---|---------------|
| A 2FE primary school at Bromley by Bow South  | Education - Primary Schools         | No planning permission, no funding | Alongside development              | LB Tower Hamlets, tbc                         | SA4.1   | Tower Hamlets |
| A 3FE primary school, Neptune Wharf (Fish Island)   | Education - Primary Schools         | Has funding or planning permission | Unknown                            | Developer / LB Tower Hamlets                  | Neptune Wharf Planning permission s106 agreement    | Tower Hamlets |
| Nursery - 220sqm (GEA) - PDZ 1 - Stratford Waterfront East  | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Newham        |
| Nursery - 180sqm - PDZ 2 - Stratford Waterfront West  | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Newham        |
| Nursery - 220sqm - PDZ 4 - Sweetwater   | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Tower Hamlets |
| Two Nurseries - 360sqm (GEA) which can be provided as one or two premises - PDZ 5 - East Wick and Here East | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Hackney       |
| Two Nurseries - 378sqm (GEA) which can be provided as one or two premises - PDZ 6 - Chobham Manor           | Education - Early years / Nurseries | Has funding or planning permission | Alongside development              | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Newham        |

| Infrastructure Project   | Type of project                     | Status                             | Phasing                            | Delivery / other responsible agencies         | Information Source                                  | Borough               |
|--|-------------------------------------|------------------------------------|------------------------------------|---|---|-----------------------|
| Two Nurseries - 360sqm (GEA) which can be provided as one or two premises - PDZ 8 - Pudding Mill | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Newham                |
| A 1FE Nursery at Neptune Wharf Fish Island   | Education - Early years / Nurseries | Has funding or planning permission | Unknown                            |   | Neptune Wharf Planning Application (Options 2 or 3) | Tower Hamlets         |
| A Children's Centre at Bromley By Bow new District Centre  | Education - Early years / Nurseries | No planning permission, no funding | Unknown                            |   | Bromley by Bow Masterplan; Planning Application     | Tower Hamlets         |
| LCS - Primary Care Centre (PDZ 4, 2,554m2, six GPs and six dentists)                             | Primary healthcare                  | Has funding or planning permission | 2014 - 2026                        |   | LCS Planning Application                            | Tower Hamlets         |
| Walk-in centre (PDZ 8 645m2, two GPs and two dentists)   | Primary healthcare                  | Has funding or planning permission | 2016 - 2026                        |   | LCS Planning Application                            | Newham                |
| New community facilities in Hackney Wick Neighbourhood Centre                                    | Primary healthcare                  | No planning permission, no funding | Med / Long term                    |   | LLDC  | Hackney/Tower Hamlets |

| Infrastructure Project  | Type of project    | Status                             | Phasing               | Delivery / other responsible agencies | Information Source                                      | Borough                        |
|---|--------------------|------------------------------------|-----------------------|---------------------------------------|---|--------------------------------|
| 1,000 – 2,500m <sup>2</sup> community and health space in the Greater Carpenters Estate area  | Sports and Leisure | No planning permission, no funding | Unknown               |                                       | Stratford Metropolitan Masterplan                       | Newham                         |
| Additional indoor tennis courts at Eton Manor   | Sports and Leisure | No planning permission, no funding | Medium term           | LTA/Tennis Foundation                 | LLDC  | Waltham Forest                 |
| Visitor moorings facilities (Provision of better boater facilities Visitor mooring in the Park with creation of pontoons north of the existing commercial moorings. Could be on a bookable basis) | Sports and Leisure | No planning permission, no funding | Short term            | Canal & River Trust, LLDC             | Canal & River Trust, Olympic Legacy Waterways Framework | Newham                         |
| LCS - 12.4ha open space within the red line boundary  | Open Space         | Has funding or planning permission | 2015 - 2031           |                                       | LCS Planning Application                                | All                            |
| Public open space at Bromley by Bow North, Sugar House Lane, Bromley by Bow South, Hackney Wick   | Open Space         | Has funding or planning permission | Alongside development |                                       | LLDC consultation / relevant s.106 agreements           | Newham, Hackney, Tower Hamlets |
| New public spaces created alongside canal edge providing public access to the water and integrating informal connections  | Open Space         | No planning permission, no funding | Unknown               | Canal & River Trust                   | LLDC  | Tower Hamlets                  |

| Infrastructure Project   | Type of project  | Status                             | Phasing                    | Delivery / other responsible agencies | Information Source  | Borough       |
|--|------------------|------------------------------------|----------------------------|---------------------------------------|---|---------------|
| 1.2 ha local park, Fish Island / north of Hertford Union Canal   | Open Space       | Has funding or planning permission | Alongside development      | Canal & River Trust                   | Fish Island AAP   | Tower Hamlets |
| Opportunities for public space south of Hertford Union Canal   | Open Space       | Has funding or planning permission | Alongside development      |                                       | Local Plan and Neptune Wharf planning permission and s106 agreement | Tower Hamlets |
| Local / open square with connections to and from the Greenway in Fish Island south adjacent to 417 Wick Lane | Open Space       | No planning permission, no funding | Alongside development      |                                       | Fish Island AAP   | Tower Hamlets |
| LCS - 29 children's play spaces / areas totalling 14,210m <sup>2</sup>                                       | Child Play Space | Has funding or planning permission | 2015 - 2031                | LLDC                                  | LCS s.106 agreement   | All           |
| LCS children's play space PDZ1 - 900sqm comprising 2x doorstep play and 1x neighbourhood play                | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards | LLDC                                  | LCS s.106 agreement   | Newham        |
| LCS children's play space PDZ2 - 1145sqm comprising 3x doorstep play and 1x neighbourhood play               | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards | LLDC                                  | LCS s.106 agreement   | Newham        |
| LCS children's play space PDZ4 - 1344sqm comprising 3x doorstep play and 1x local play                       | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards | LLDC                                  | LCS s.106 agreement   | Hackney       |

| Infrastructure Project  | Type of project  | Status                             | Phasing  | Delivery / other responsible agencies | Information Source                         | Borough       |
|---|------------------|------------------------------------|--|---------------------------------------|--|---------------|
| LCS children's play space PDZ5 - 2501sqm comprising 4x doorstep play, 1x local play and 1x Youth play | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards. Local Play and Youth play delivered (Canal Park) | LLDC                                  | LCS s.106 agreement                        | Tower Hamlets |
| LCS children's play space 1821sqm PDZ6 - comprising 3x doorstep play and 1x neighbourhood play        | Child Play Space | Has funding or planning permission | Delivery from 2016 onwards. Neighbourhood play delivered (Tumbling Play)     | LLDC                                  | LCS s.106 agreement                        | Newham        |
| LCS children's play space PDZ8 - 1605sqm comprising 2x doorstep play and 2x local play                | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards   | LLDC                                  | LCS s.106 agreement                        | Newham        |
| LCS children's play space 1365sqm PDZ12 - comprising 1x local play                                    | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards   | LLDC                                  | LCS s.106 agreement                        | Newham        |
| Bromley by Bow South  | Child Play Space | No planning permission, no funding | Alongside development  |                                       | Bromley by Bow SPD                         | Tower Hamlets |
| Pudding Mill children's play space  | Child Play Space | No planning permission, no funding | As development comes forward - 2015 onwards                                  | Developer                             | Pudding Mill Land Use and Design Framework | Newham        |
| Eastway Community Facility including children's play areas  | Child Play Space | To be confirmed                    | Med / Long   |                                       | Hackney Wick AAP                           | Hackney       |

| Infrastructure Project  | Type of project  | Status                             | Phasing               | Delivery / other responsible agencies | Information Source                  | Borough       |
|---|--|------------------------------------|-----------------------|---------------------------------------|-------------------------------------|---------------|
| Trowbridge Village Green renovation project   | Child Play Space   | To be confirmed                    | Unknown               |                                       | OLSPG Infrastructure Delivery Study | Hackney       |
| LCS - 2,423m <sup>2</sup> flexible community space, 1,258m <sup>2</sup> flexible cultural space, 3,606m <sup>2</sup> of flexible leisure space and an Idea Store (2,460m <sup>2</sup> ) | Libraries, Multi Use Community space and Cultural Facilities | Has funding or planning permission | Unknown               | LLDC                                  | LCS s.106 agreement                 | All           |
| Stratford City - multi-use community facility of 1,572m <sup>2</sup> on the eastern side of the site  | Libraries, Multi Use Community space and Cultural Facilities | Has funding or planning permission | Unknown               | Developer                             | Stratford City S106 agreement       | Newham        |
| Bromley-by-Bow South community facility   | Libraries, Multi Use Community space and Cultural Facilities | No planning permission, no funding | Alongside development | Developer                             | Site allocation SA4.1               | Tower Hamlets |
| Local theatre run by 'The Yard Theatre' charity with main stage, public areas and rooms for community use   | Libraries, Multi Use Community space and Cultural Facilities | No planning permission, no funding | Unknown               | The Yard Theatre                      | The Yard Theatre                    | Tower Hamlets |
| 1,000 - 2,500m <sup>2</sup> new community and health space in the   | Libraries, Multi Use Community space and                     | No planning permission, no funding | Unknown               |                                       | Stratford Metropolitan Masterplan   | Newham        |

| Infrastructure Project    | Type of project     | Status | Phasing | Delivery / other responsible agencies | Information Source | Borough |
|---------------------------|---------------------|--------|---------|---------------------------------------|--------------------|---------|
| Greater Carpenters Estate | Cultural Facilities |        |         |                                       |                    |         |

## **4. Transport**

### **4.1 Transport**

This section continues to consider the transport schemes required to support growth within the Legacy Corporation area. Transport schemes are described as either local (those which improve connections within the Legacy Corporation area) or strategic (those which are key to connectivity with the surrounding area, London wide and regionally).

Since the previous IDP report was produced, there has been an increased emphasis on active travel within policy, active travel encompasses modes of travel where a journey is being made by physically active means, such as through walking and cycling, and is aimed at improving the health of the population as well as reducing the need for private vehicles and other modes that have a negative impact on the environment. Active travel has been included within the modes referred to in this report along with public transport modes which continue to include modes such as rail and bus and private transport, which is now reduced to private motorised vehicles. Transport infrastructure continues to describe the infrastructure required to support travel by these modes, and includes roads, railway lines, footpaths, cycle routes and waterways. Transport interventions and future projects to support transport development at both local and strategic levels have been drawn together from relevant local policy and evidence base documents and consultation and are included in Table 4.1.

The delivery of planned transport infrastructure and improvements, the high levels of development that have taken place in the Legacy Corporation area and the increased population projections for the area have led the Legacy Corporation, as part of the Local Plan Review, to publish a new Transport Study (June 2018). This study is an update to the evidence base produced for the current Legacy Corporation Local Plan and IDP to reflect the changes in the area, and builds on the high level of new, existing and still pertinent evidence already available in relation to the Legacy Corporation area and this section reflects the findings and information included in this report.

#### *Policy Framework*

There are a range of policy documents that provide evidence of existing and future transport infrastructure needs in the Legacy Corporation area that are new or still pertinent, these include information about the transport infrastructure which has been identified as required to meet future needs and the processes for planning and delivering transport and connectivity improvements. The below analysis of relevant documents and evidence is taken from the Legacy Corporation's Transport Study (June 2018).

#### **London Policy**

The London Plan (March 2016, amended January 2017) the spatial development strategy at a city-wide level, which local spatial planning should conform with. There is an emphasis on integrating transport and development, for example by promoting land use patterns that are centred around transport nodes as well as reducing the need to travel by promoting mixed use development. There is also a focus on connectivity improvements, including improving interchange between different modes, as well as improving the capacity and accessibility of public transport and walking/cycling routes in areas of greatest demand.

The Draft New London Plan (August 2018) is the draft that is due to go to Examination in Public in January 2018. This plan sets ambitious targets, including achieving carbon free



travel by 2050, and 80% of all trips being made by foot, cycle or public transport by 2041. Compared to the previous Plan, there is a stronger focus on the promotion of active travel and sustainable modes. At the core of this Plan are the concepts of ‘Good Growth’ which emphasises the aspirations for economically inclusive and environmentally sustainable growth, and ‘Healthy Streets’, which prioritises improving health through active travel and attractive street environments. Public realm improvements are seen as being central to creating a city that encourages active travel.

Mayor’s Transport Strategy (MTS) (March 2018) the key aspirations are for ‘Healthy Streets’ designed to reduce traffic, improve air quality, and encourage active modes of travel (walking and cycling). It also aims to create a reliable and accessible public transport system that can cope with more passengers, and to invest in transport upgrades to support the creation of new homes and jobs. The evidence base for this document, including the MTS Challenges and Opportunities Report, assesses the transport conditions across London, showing particular areas of congestion and crowding on both the public transport and highway networks.

Olympic Legacy Supplementary Planning Guidance: Strategic Transport Study (2011) conclusions of this document were that “the main focus of future interventions will be encouraging mode shift away from cars while still supporting regeneration through enhancing connectivity into the surrounding areas with a particular emphasis on walking and cycling connectivity or public transport only links”. This strategy and specifically its conclusions remain relevant.

London Stalling – Reducing Traffic Congestion in London (2017) outlines various issues and measures in relation to congestion on London’s highways, and states the objective of encouraging a modal shift away from private vehicles. This includes encouraging use of public transport and active travel modes, consideration of how road pricing could be used to promote mode shift, and improving the reliability of the bus network, particularly in the context of recent reductions in ridership.

### **Legacy Corporation Policy**

Bromley-by-Bow Supplementary Planning Document (SPD) (2017) seeks to reduce the severance and adverse impacts of the A12, with improved crossings of the A12 for pedestrians and cyclists proposed, as well as a new junction to improve vehicular access, to support the residential-led mixed use development proposed for the site. It proposes a segregated cycle path along the A12 on the eastern side south of Bow Roundabout and adjacent to new development. It also promotes a route running along the waterway frontage north-south through the area, linking to the Lea River Park route. It is recognised that parking provision should be low, as public transport accessibility is high, but notes that some road access improvements are required for buses and servicing/delivery vehicles that need access.

Pudding Mill Supplementary Planning Document (2017) this document provides a focus on maximising permeability through the provision of new routes to, from and through the site with a clear hierarchy to promote pedestrian and cycle movement, improving access to the station. Pudding Mill Lane Docklands Light Railway (DLR) station is situated within the site, and double tracking to increase capacity remains a long-term aspiration relevant to this area. Whilst the provision of a limited amount of car parking is discussed, the priority should be for pedestrians and cyclists, and routes should therefore be designed to encourage slow speeds for cars. The document also supports further provision of bus routes through the area. Specific enhancements include - widening of Cook’s Road bridge over the Bow Back River; a new bridge across Bow Back River at Marshgate Lane; east-west connections across the site; new pedestrian underpasses

linking the Queen Elizabeth Olympic Park (QEOP) and Bridgewater Road; Junction improvements on Stratford High Street.

Hackney Wick and Fish Island Supplementary Planning Document (2018) focuses on walking and cycling connectivity improvements that improve access to public transport, particularly to the upgraded station at Hackney Wick. The interventions and connectivity projects listed largely focus on cycling and pedestrian routes. It also suggests that new bus routes may also be possible in this area with new all-mode connections such as the H14 bridge. Public realm improvements are also discussed, creating high quality and attractive street environments.

Draft Greater Carpenters Neighbourhood Plan (2017), produced by the Greater Carpenters Neighbourhood Forum the central aspiration is to integrate the neighbourhood with the surrounding areas, including improving access to Stratford Station and the Olympic Park. There is also support for a shift towards sustainable transport, including infrastructure improvements that will promote walking and cycling, such as provision of cycle storage, new cycle/walking routes, and urban realm improvements.

Lea River Park – Primer and Design Manual (March 2017), the strategic initial phase of this vision is the delivery of a linear park named The Leaway which involves the creation of a continuous walking and cycling route along the River Lea. Parks and additional cycling and pedestrian routes are planned to be added later as land becomes available. This project will serve to increase the permeability of the area, linking previously fragmented spaces, as well as providing public open space.

London Boroughs of Hackney, Newham, Tower Hamlets and Waltham Forest: Hackney Transport Strategy 2015-2025 (November 2015) sets out the transport vision and priorities for Hackney, including a number of key projects to improve public transport such as filling connectivity gaps in the network, as well as encouraging mode shift to walking and cycling. There is also a focus on creating liveable neighbourhoods, particularly by reducing traffic volumes, promoting car clubs and sharing, the provision of electric vehicle charging points, and provision of cycle parking. Car free development is required for development proposals located at sites of greater than PTAL 4, and 'car-capped' will be supported for other sites, which will provide limited off-street parking, whilst still limiting on-street parking. Smart Parking systems are also discussed, which would provide data on parking demand and pollution levels and could vary pricing accordingly to discourage parking in particular areas.

The Stratford Metropolitan Masterplan (2011) highlighted the strategy to minimise car use, including the need to “successfully deliver significant travel behaviour changes”. It identified that “the most urgent need probably lies in physical interventions that address existing barriers and foster connectivity and environment”. Local connectivity and local access improvements are therefore central to the proposed approach, as well as general measures to minimise use of private vehicles. This includes improved access from the south-west to Stratford station and updated traffic arrangements to reduce the impact of traffic in Stratford town centre.

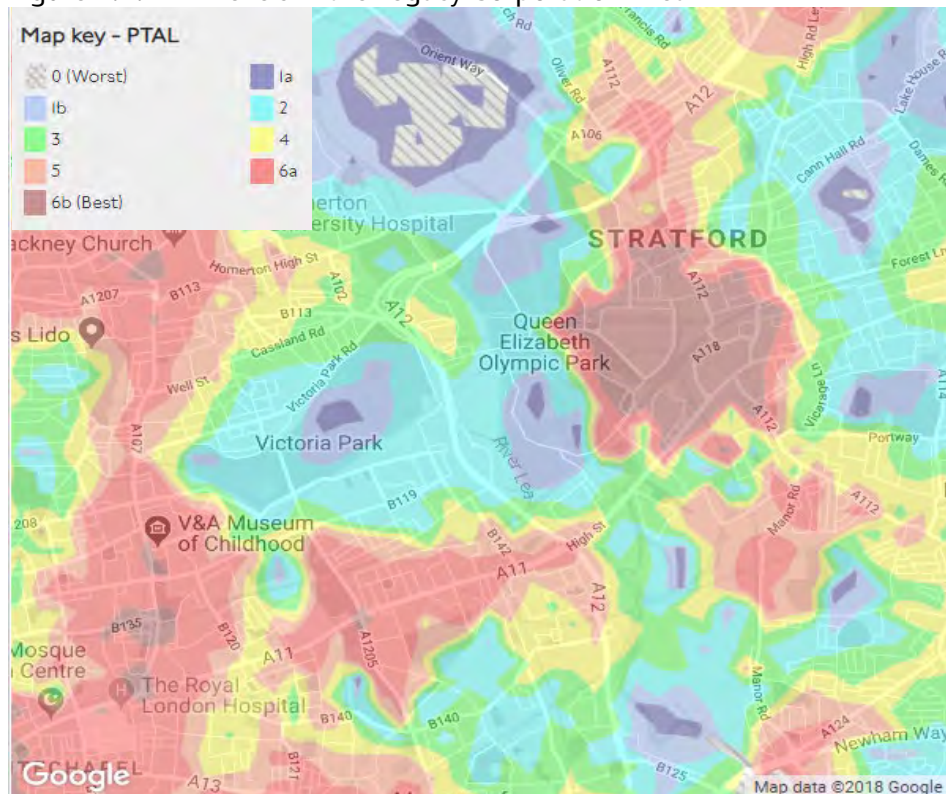
Tower Hamlets Parking Study (2017) examines the impact of removal of parking spaces in terms of reducing trip generation and emissions. Use of the London Highway Assignment Model (LoHAM) reveals the potential flow reductions resulting from a reduction in parking. This mirrors the strategy set out in the Strategic Transport Assessment (London Borough of Tower Hamlets, 2017) which outlines that the borough has the ideal conditions for minimising the role of private cars and limiting this to essential trips.

Northern Olympic Fringe Area Action Plan Preferred Options (2011) remains the most relevant review covering the London Borough of Waltham Forest area, although most of the area covered is outside of the Legacy Corporation area. It also highlights local connectivity and the barrier effect of railways. In addition to improved/additional walking and cycling links (including additional links to the Olympic Park) it supports restoration of the Hall Farm Curve to facilitate improved rail links and supports upgrading of Leyton Underground station, which are continued aspirations for the London Borough of Waltham Forest.

*Existing Provision*

The Legacy Corporation benefits from a high level of existing strategic transport provision. The area is served by; London Underground and Overground, Tfl Rail, DLR and national rail services, London Bus services and walking and cycling routes, including the extension of the original cycle superhighway along Stratford High Street route CS2, as well as the canals and waterways with their related tow paths. Local connectivity has continued to be a challenge for the area, as the strategic infrastructure such as railways and waterways has created barriers to local movements. These continue to be addressed on a local level by a range of schemes to improve cycle and walking links through the area. At Hackney Wick, the new Overground station has delivered a new north/south linkage in the area via a tunnel through the rail embankment. Figure X below show the Public Transport Accessibility Levels (PTAL) throughout the area, PTAL levels are a “measure of the accessibility of a point to the public transport network, taking into account walk access time and service availability”. PTAL levels are based on an 8-point accessibility scale, with rating 1a being the worst and rating 6b being the best. PTAL levels across the Legacy Corporation area continue to vary greatly, with some areas in the Queen Elizabeth Olympic Park scoring as low as 1a, due to their distance from strategic transport infrastructure. However, the areas of low PTAL have decreased significantly since the previous IDP report was produced, and accessibility both too and from the Legacy Corporation area and within the area continues to improve.

Figure 4.1: PTAL levels in the Legacy Corporation Area



### *Planned Provision*

Table 4.1 below lists the local and strategic transport schemes which have been identified in relevant evidence-based documents as well as through the Legacy Corporation's Transport Study (June 2018), as required to support and facilitate development within the Legacy Corporation area. There continue to be many transport projects required to enable and support growth in the Legacy Corporation area.

The Elizabeth Line will be a major new route linking up London from east to west and continuing to Reading in the west and Shenfield and Abbey Wood in the east which will serve Stratford station. Following a delay, this is now due to open in December 2019, replacing TfL rail services that currently serve Stratford station.

There are a range of local connectivity projects that are planned and included in Table 4.1, the Legacy Corporation continues to focus on delivering local connectivity to facilitate development in the area as well as in order to support the Healthy Streets approach included within the Draft New London Plan, as well as to support the Mayor's target of 80% of all journeys being undertaken by walking or cycling or public transport by 2041.

### *Future Provision*

The Transport Study (June 2018) found that continues improvements towards improving transport and connectivity into, out of and within the Legacy Corporation area is critical in supporting population and employment growth. The study emphasised the importance of continuing the direction of the Legacy Corporation's current Local Plan within the Local Plan review in relation to transport provision. The priority should continue to be on improving local connectivity and access, especially for pedestrians and cyclists and overcoming the severance created by roads, railway and waterways, creating better routes to public transport nodes.

The Transport Study (June 2018) found that, whilst crowded in places, the public transport network in the Legacy Corporation area had the capacity to support the planned development in the area. Therefore, other than those existing schemes set out in the evidence base, no further projects are proposed. The Legacy Corporation will continue to work closely with Transport for London (TfL) to monitor public transport capacity to ensure that it continues to meet the needs of the population in the Legacy Corporation area. The study highlighted the pressure on roads in the area and the need to continue to reduce pressure on the road network through encourage model shift in travel patterns, especially through improvements of road environments for cyclists and pedestrians, policy increasingly emphasises sustainable transport methods, and therefore the Legacy Corporation will continue to enable and encourage more sustainable transport modes through policy.

Table 4.1: IDP Project List Local and Strategic Transport Requirements (listed by Sub Area)

| Infrastructure Project   | Type of project             | Status                              | Phasing     | Delivery / other responsible agencies    | Information Source  | Borough                 |
|--|-----------------------------|-------------------------------------|-------------|--|---|-------------------------|
| Hackney Wick and Fish Island (sub-area 1)  |                             |                                     |             |  |   |                         |
| Hackney Wick London Overground station new entrance and improved access  | Strategic Transport Schemes | Being implemented                   | Short Term  | Network Rail / LLDC                      | OLSPG Strategic Transport Study and OLSPG Infrastructure Delivery Study | Tower Hamlets / Hackney |
| Monier Road vehicular bridge (H14): Bridge connecting Fish Island Mid to the Olympic Park  | Local Transport Schemes     | Being implemented                   | 2018        | East Wick and Sweetwater Projects & LLDC | Application ref: 16/00587/REM   | Tower Hamlets           |
| Stour Road bridge (H16) - new pedestrian/cycle connecting Fish Island Mid to the Olympic Park  | Local Transport Schemes     | Being implemented                   | 2018        | East Wick and Sweetwater Projects & LLDC | Application ref: 16/00588/REM   | Tower Hamlets           |
| Roach Point Bridge: Replacement of the pedestrian Bridge with a shared pedestrian and cycle Bridge between Hackney Wick and Fish Island. | Local Transport Schemes     | Has funding and planning permission | Medium term | LLDC/developer                           | Hackney Wick & Fish Island Supplementary Planning Document              | Tower Hamlets           |
| TfL Cycle Hire within Hackney Wick & Fish Island   | Local Transport Schemes     | Partially Complete                  | Medium term | TfL                                      | TfL internal work   | Tower Hamlets, Hackney  |
| New link across Hertford Union Canal bottom lock, from Smeed Garden through McGrath site   | Local Transport Schemes     | No planning permission, no funding  | Medium term | Developer                                | LLDC  | Tower Hamlets           |

| Infrastructure Project   | Type of project         | Status                             | Phasing     | Delivery / other responsible agencies | Information Source   | Borough       |
|--|-------------------------|------------------------------------|-------------|---------------------------------------|--|---------------|
| Upgrade of existing bridge over the Old River Lea (south of Old Ford Lock) for use by cycles and wheelchairs by adding ramp. | Local Transport Schemes | No planning permission, no funding | Long term   | C&RT/LLDC                             | Canal Park project scoping                                 | Tower Hamlets |
| New pedestrian/cycle connection from Crown Close/Wick Lane to Greenway (ramp/stairs)   | Local Transport Schemes | No planning permission, no funding | Short term  | Developer                             | LBTH/OPLC connections study and HWFI public realm strategy | Tower Hamlets |
| Upgraded pedestrian link (new ramp) from Dace Road to the Greenway   | Local Transport Schemes | No planning permission, no funding | Medium term |                                       | Hackney Wick & Fish Island Supplementary Planning Document | Tower Hamlets |
| Upgraded pedestrian and cycle facilities at Wansbeck Road crossing   | Local Transport Schemes | No planning permission, no funding | Short term  | LLDC/LBTH                             | Hackney Wick & Fish Island Supplementary Planning Document | Tower Hamlets |
| Improve pedestrian and cycle route under the A12 from Eastway to Mabley Green  | Local Transport Schemes | No planning permission, no funding | Long term   |                                       | Hackney Wick & Fish Island Supplementary Planning Document | Hackney       |
| Further upgraded pedestrian / cycle connection over the A12 from Wallis Road to Cadogan Terrace.                             | Local Transport Schemes | No planning permission, no funding | Long term   |                                       | Hackney Wick & Fish Island Supplementary Planning Document | Tower Hamlets |

| Infrastructure Project  | Type of project                   | Status   | Phasing      | Delivery / other responsible agencies | Information Source           | Borough        |
|---|-----------------------------------|--|--------------|---------------------------------------|------------------------------|----------------|
| A12 underpass improvements Wick Lane  | Local Transport Schemes           | No planning permission, no funding   | Short term   | LLDC                                  | HWFI Connectivity Study      | Tower Hamlets  |
| A12 Road Bridge at Crown Close and Old Ford Road  | Local Transport Schemes           | No planning permission, no funding   | Medium term  | LLDC / TfL                            | Local Plan                   | Tower Hamlets  |
| Electric Vehicle Charging Infrastructure  | Local/Strategic Transport Schemes | No planning permission, no funding   | 2018-2019    | LBH/TfL                               | Hackney Transport Strategy   | Hackney        |
| Hackney Wick Zero Emissions Network (ZEN) and associated Neighbourhood Programme                      | Strategic Transport Schemes       | No planning permission, no funding   | 2020 onwards | LBH                                   | Hackney Transport Strategy   | Hackney        |
| North of Stratford (sub-area 2)   |                                   |  |              |                                       |                              |                |
| Pedestrian and Cycle link between Leyton and Olympic Park between Ruckholt Road and Temple Mills Lane | Local Transport Schemes           | No planning permission, no funding - Waltham Forest are currently undertaking early stage feasibility on this, including understanding land ownership. | Medium term  | LBWF                                  | Lea Bridge and Leyton Vision | Waltham Forest |

| Infrastructure Project  | Type of project             | Status                             | Phasing                    | Delivery / other responsible agencies | Information Source   | Borough        |
|---|-----------------------------|------------------------------------|----------------------------|---------------------------------------|--|----------------|
| Cycle Lane provision between Eastway/Ruckholt Road and A12  | Local Transport Schemes     | No planning permission, no funding | Medium term                | LBWF                                  | Lea Bridge and Leyton Vision   | Waltham Forest |
| TfL Cycle Hire - Chobham Manor  | Local Transport Schemes     | No planning permission, no funding | Medium term                | TfL                                   | TFL internal work  | Newham         |
| Central Stratford and QEOP (sub-area 3)   |                             |                                    |                            |                                       |  |                |
| Downgrade of Great Eastern Road / Stratford Gyratory - removal of gyratory - TfL Major Schemes  | Strategic Transport Schemes | Being implemented                  | Med term – completion 2019 | LBN                                   | TfL Major Schemes Programme  | Newham         |
| Bridgewater Road bridge replacement   | Local Transport Schemes     | Has funding or planning permission | Assumed 2021               | Developer                             | LCS planning permission  |                |
| Warton Road pedestrian/cycle route and associated urban realm works - to add new pedestrian footway into the QEOP underneath railway tracks on western side | Local Transport Schemes     | Has funding or planning permission | Medium Term                | Newham / LLDC                         | Stratford Transport Implementation Group (STIG), S106 agreements, Newham | Newham         |



| Infrastructure Project  | Type of project         | Status   | Phasing     | Delivery / other responsible agencies | Information Source   | Borough                        |
|---|-------------------------|--|-------------|---------------------------------------|--|--------------------------------|
| Direct access into Stratford Station from Carpenters area - including new entrance to Stratford Station   | Local Transport Schemes | Has funding or planning permission   | Short term  |                                       | Stratford Metropolitan Masterplan Transport Study                                | Newham                         |
| TfL Cycle Hire within queen Elizabeth Olympic Park  | Local Transport Schemes | Partially Complete   | Short Term  | TfL/LLDC                              | TfL internal work  | Tower Hamlets, Newham, Hackney |
| Montfichet Road / Westfield Avenue highway / public realm works, Stratford City bus station access. Carriageway reduction and reallocation to urban realm and cycle/pedestrian space. Provision of segregated cycle facilities. | Local Transport Schemes | No planning permission, no funding   | Medium term | LBN / LLDC                            | LLDC Feasibility Study, Mott McDonald & Urban Initiatives                        | Newham                         |
| <b>Further Stratford Station Capacity Enhancements</b>  |                         |  |             |                                       |  |                                |
| Lift works at Stratford station to support new direct access from Carpenters area.  | Local Transport Scheme  | Permitted Development, no funding  | Short term  | TfL                                   | TfL LU Outcome Definition Study, Crossrail Legion Model                          | Newham                         |
| Direct access into Stratford Station via a disused ticket hall to Eastern subway onto all NR platforms  | Local Transport Scheme  | Passive Provision within Westfield YHA / Office planning application, no funding | Short term  | TfL/Westfield                         | TfL LU Outcome Definition Study, and South-eastern Ticket Hall Feasibility Study | Newham                         |

| Infrastructure Project   | Type of project         | Status                             | Phasing     | Delivery / other responsible agencies | Information Source  | Borough |
|--|-------------------------|------------------------------------|-------------|---------------------------------------|---|---------|
| Stratford station Southern ticket hall expansion   | Local Transport Scheme  | No funding                         | Short term  | TfL                                   | TfL LU Outcome Definition Study   | Newham  |
| Western Overbridge for major capacity upgrade at Stratford Station                           | Major Transport Scheme  | No planning and No funding         | Medium term | TfL/NR                                | TfL LU Outcome Definition Study, Crossrail Legion Model, Overbridge Feasibility Study | Newham  |
| New Event Day Entrance to Stratford Station via Northern Ticket Hall                         | Local Transport Scheme  | No planning, and no funding        | Short term  | TfL                                   | TfL Outcome Definition Study, Event Day Entrance Legion modelling                     | Newham  |
| Direct access into Stratford town centre from Carpenters area - replacement Jupp Road Bridge | Local Transport Schemes | No planning permission, no funding | Medium term | LLDC/Newham                           | Stratford Metropolitan Masterplan Transport Study                                     | Newham  |
| E38 Carpenters Road Underpass and surrounding environment                                    | Local Transport Schemes | No planning permission, no funding | 2020        | Newham, LLDC & Network Rail           | LLDC Connectivity Study   | Newham  |
| Montfichet Street West - Link to Pool Street/Loop Road pedestrian connection.                | Local Transport Schemes | No planning permission, no funding | 2020        | Newham/LLDC                           | LLDC Connectivity Study   | Newham  |

| Infrastructure Project  | Type of project         | Status                             | Phasing          | Delivery / other responsible agencies  | Information Source                                | Borough |
|---|-------------------------|------------------------------------|------------------|--|---|---------|
| Upgrade of subway connection from Olympic Park at U07 under the Greenway on City Mill River   | Local Transport Schemes | No planning permission, no funding | Short / Med term | Crossrail / C&RT / LLDC / Newham   | Canals & Rivers Trust                             | Newham  |
| Upgrade of access point from Green Way to towpath at the cross of the River Lea and upgrade to towpath                                    | Local Transport Schemes | No planning permission, no funding | Short / Med term | C&RT / LLDC / Newham   | Canals & Rivers Trust                             | Newham  |
| Bridge from IQL to Stratford Waterfront over rail tracks  | Local Transport Schemes | No planning permission, no funding | Short term       | Passive safeguarding in Stratford City zone 2 S106 (TIQ). Potential to be brought forward as part of Stratford Waterfront development. | LLDC 10 Year Plan                                 | Newham  |
| <b>Stratford High Street Works to complement removal of town centre gyratory</b>  |                         |                                    |                  |  |   |         |
| Downgrading of Stratford High Street, including improved urban realm and narrowing to northeast of Warton Road, or addition of bus lanes. | Local Transport Schemes | No planning permission, no funding | Medium term      |  | Stratford Metropolitan Masterplan Transport Study | Newham  |
| Downscaling of Warton Road junction   | Local Transport Schemes | No planning permission, no funding | Medium term      | Newham   | Stratford Metropolitan Masterplan Transport Study | Newham  |

| Infrastructure Project   | Type of project         | Status                             | Phasing    | Delivery / other responsible agencies | Information Source   | Borough       |
|--|-------------------------|------------------------------------|------------|---------------------------------------|--|---------------|
| Visitor moorings facilities (Provision of better boater facilities Visitor mooring in the Park with creation of pontoons north of the existing commercial moorings. Could be on a bookable basis)            | Local Transport Schemes | No planning permission, no funding | Short term | Canal & River Trust, S106, LLDC       | C&RT, Olympic Legacy Waterways Framework   | Tower Hamlets |
| Bromley-by-Bow, Pudding Mill and Sugar House Lane (sub-area 4)   |                         |                                    |            |                                       |  |               |
| Improved cycle and pedestrian crossings at Bow Interchange - interim scheme  | Local Transport Schemes | Delivered                          | Short term | TfL                                   | Bromley by Bow Masterplan SPD  | Tower Hamlets |
| Bromley by Bow Underground Station Improvements  | Local Transport Schemes | Being implemented                  | Short term | LUL/Developer/TfL                     | TfL Business Plan, OLSPG Strategic Transport Study, OLSPG Infrastructure Delivery Plan | Tower Hamlets |
| Leaway 2 - Link between Twelvetrees Bridge and Lea Valley Walk - new stairs, lift and ramps, and associated public realm - new local connection between Bromley by Bow to Stratford and QEOP to River Thames | Local Transport Schemes | Being implemented                  | Short term | LLDC/LBN                              | Lea River Park Primer, Fatwalk Stage E   | Newham        |
| Bromley-by-Bow, Sugar House Lane and Pudding Mill links  |                         |                                    |            |                                       |  |               |
| Pedestrian and cycle bridge between the Bisson Road and Sugar House Lane areas, via Three-Mills  | Local Transport Schemes | Being implemented                  | 2020       | Sugar House Lane S106                 | Stratford Metropolitan Masterplan Transport Study                                      | Newham        |

| Infrastructure Project  | Type of project         | Status                             | Phasing          | Delivery / other responsible agencies            | Information Source  | Borough                |
|---|-------------------------|------------------------------------|------------------|--|---|------------------------|
| Direct link between Sugar House Lane and Marshgate Lane / Marshgate Lane / Stratford High Street junction   | Local Transport Schemes | Has funding or planning permission | Short term       |  | Stratford Metropolitan Masterplan Transport Study, Bow Vision | Newham                 |
| Bridges between Bromley by Bow and Sugar House Lane, including bus bridge at Culvert Drive.   | Local Transport Schemes | Has funding or planning permission | Short / Med term | Sugar House Lane S106, Bromley by Bow North S106 | S106 agreements   | Newham / Tower Hamlets |
| <b>Bromley-by-Bow A12 improvements</b>  |                         |                                    |                  |  |   |                        |
| Improving pedestrian and cycle links across the A12 south of Bow Roundabout and improved pedestrian and cycle environment along the A12 corridor. | Local Transport Schemes | Has funding or planning permission | Medium-Long term | Developer / TfL                                  | LLDC/TfL  | Tower Hamlets          |
| Replacement of subway at Three Mills Lane with a pedestrian crossing - No longer proposed as part of Bow Vision or Bromley by Bow SPD             | Local Transport Schemes | No longer proposed                 | Med term         |  | Bromley by Bow Masterplan SPD                                 | Tower Hamlets          |
| Pedestrian Surface Crossing outside Bromley-by-Bow tube station. Superseded by proposals for crossings as part of new junction                    | Local Transport Schemes | No longer proposed                 | Medium term      | TfL (A12 Study)                                  | A12 RTF Study/ Bromley by Bow Masterplan                      | Tower Hamlets          |
| Bromley by Bow Project: new junction  | Local Transport Schemes | No planning permission, no funding | Medium term      | TfL (Bow Vision)                                 | Local Plan/TfL Bow Vision/TfL A12 Study                       | Tower Hamlets          |

| Infrastructure Project   | Type of project         | Status                             | Phasing     | Delivery / other responsible agencies                                  | Information Source   | Borough                 |
|--|-------------------------|------------------------------------|-------------|--|--|-------------------------|
| A12 Streetscape outside BBB Station                                    | Local Transport Schemes | No planning permission, no funding | Medium term | TfL (Bow Vision)   | Local Plan / BBB Station Public Realm works / Forthcoming Bromley by Bow SPD | Tower Hamlets           |
| A12 subway by Bromley by Bow station                                   | Local Transport Schemes | No planning permission, no funding | Medium term | Developer / TfL  | LLDC / TfL / Danescroft planning application                                 | Tower Hamlets           |
| Franklin Street pedestrian crossing                                    | Local Transport Schemes | No planning permission, no funding | Short term  | TfL  | Local Plan   | Tower Hamlets           |
| Environmental Enhancement of Hancock Road                              | Local Transport Schemes | No planning permission, no funding | Medium Term | TfL and Developer. Related to the Bow South development and Bow Vision | TfL A12 Study  | Tower Hamlets           |
| A12 30mph Speed limit  | Local Transport Schemes | No planning permission, no funding | Medium term | TfL  | TfL A12 RTF Study  | Tower Hamlets / Hackney |
| Pudding Mill Lane west-east bridge over A12 at Five Bells Wrexham Road | Local Transport Schemes | No planning permission, no funding | Long term   | TfL / LB Tower Hamlets, LB Newham                                      | LLDC   | Newham , Tower Hamlets  |

| Infrastructure Project  | Type of project         | Status                             | Phasing             | Delivery / other responsible agencies  | Information Source                                | Borough       |
|---|-------------------------|------------------------------------|---------------------|--|---|---------------|
| New bus / ped / cycle bridge over the Bow Back river at Marshgate Lane, Pudding Mill Lane   | Local Transport Schemes | No planning permission, no funding | Short / Medium term | Developer - part provision made through S106 for Porsche garage site. Linked to the Marshgate Lane junction proposals. | Stratford Metropolitan Masterplan Transport Study | Newham        |
| Bow Interchange (Flyover removal)   | Local Transport Schemes | No planning permission, no funding | Long term           | TfL (Bow Vision)   | TfL Bow Vision                                    | Tower Hamlets |
| New bridge connection across the River Lea at Autumn Street or Riverside Wharf (dependent on the future of Bow Midland East rail yard in Newham)                          | Local Transport Schemes | No planning permission, no funding | Long term           |  | Fish Island AAP                                   | Tower Hamlets |
| Cooks Road Bridge widening over Bow Back River  | Local Transport Schemes | No planning permission, no funding | Med / Long term     | Developer/LLDC   | Pudding Mill Land Use and Design Framework        | Newham        |
| LLDC area wide  |                         |                                    |                     |  |   |               |
| Bus network enhancements - to match the increasing travel demands resulting from the growth in the LLDC area and provide links to neighbouring communities and facilities | Local Transport Schemes | No planning permission, no funding | Medium term         | TfL  | TfL   | All           |

## 5. Utilities and Hard Infrastructure

### 5.1. Introduction

This section covers key utilities and hard infrastructure covering the Legacy Corporation area including; energy, water, sewerage, waste management and flood defences.

Responsibility for the monitoring, planning, maintenance and delivery of infrastructure lies with several private utilities operators. In some cases, dependent on areas of coverage they might cover as providers, and the type of utility infrastructure required, this may mean that they plan across areas that are geographically larger than the Legacy Corporation, London Boroughs or Greater London as plans may need to be made regionally.

This section has drawn upon information published by providers for public use, including investment and resource management plans, where available. Information has also been sourced from borough-level infrastructure studies, SPDs and other infrastructure evidence base produced by the Legacy Corporation or other information that relates to the Legacy Corporation area.

### 5.2. Energy

#### *Existing and planned provision*

- Electricity

The Legacy Corporation falls within the area of distribution network operator UK Power Networks (UKPN), which own and maintain the electricity cables of the South East of England, East of England and London. UKPN are responsible for monitoring, planning and delivery of electricity across the area it manages which covers over 29,250km<sup>2</sup>. In 2018 they published a Central London Plan update covering the requirements and need for the centre of London, however there is no specific information available for areas that fall outside of central London. UKPN includes information about their performance and plans for their overall network within their Business Plan.

Electricity network operators have a legal requirement to provide adequate electricity supply to meet the requirements of new residential development. UKPN submit their business plans to the regulator (Ofgem) for approval and review, as set out as part of Ofgem's national guidance.

The government publishes local and regional statistics relating to energy consumption. Table 5.1 shows electricity usage within each of the four boroughs, in comparison with Greater London levels in 2015. No data is provided with regards to the Legacy Corporation area specifically.

Table 5.1: Electricity consumption by borough and Greater London wide (2015)

| Area           | Total domestic consumption (GWh) | Total commercial and industrial consumption (GWh) |
|----------------|----------------------------------|---|
| Hackney        | 966.2112                         | 308.9236  |
| Newham         | 1071.544                         | 916.9734  |
| Tower Hamlets  | 683.327                          | 616.0375  |
| Waltham Forest | 1188.259                         | 292.5315  |
| Greater London | 39700.72                         | 19401.48  |

(source - <https://www.gov.uk/government/statistical-data-sets/total-final-energy-consumption-at-regional-and-local-authority-level-2005-to-2010>)



Infrastructure development for the 2012 Olympic Games led to significant investment in site wide utilities within the Queen Elizabeth Olympic Park, these were sited and sized to meet anticipated demand from the long term post-Games legacy, including electricity and gas. The Olympic Park District Energy System (OPDES) was a core aspect of this utilities infrastructure to serve development in the Legacy Corporation area. Projects relating to planned provision are included within Table X at the end of this section.

- Gas

National Grid is the gas transmission and distribution network operator for Greater London including the Legacy Corporation area. As with electricity, as the provider, National Grid have a duty to supply, plan and develop gas infrastructure in their area, responding to requests for new gas supplies.

The government publishes local and regional statistics relating to energy consumption. Table 5.2 shows gas usage within each of the four boroughs, in comparison with Greater London levels in 2015. No data is provided with regards to the Legacy Corporation area specifically.

Table 5.2: Gas consumption by borough and Greater London wide (2015)

| Area           | Total domestic consumption (GWh) | Total commercial and industrial consumption (GWh) |
|----------------|----------------------------------|---|
| Hackney        | 569.9302                         | 0.837334  |
| Newham         | 1108.74                          | 2.966725  |
| Tower Hamlets  | 1005.954                         | 0.959291  |
| Waltham Forest | 705.8518                         | 3.981181  |
| Greater London | 30648.27                         | 219.8259  |

(source - <https://www.gov.uk/government/statistical-data-sets/total-final-energy-consumption-at-regional-and-local-authority-level-2005-to-2010>)

The National Grid’s ‘Gas Ten Year Statement 2016’ states that industrial gas usage is heavily linked to the price of coal and has risen sharply since the price in coal rose in 2015. Residential demand however has fallen by 2% per year since 2004, they relate this to government incentives and increased consumer awareness having led to consumers improving levels of insulation and install better quality gas boilers.

- Combined Cooling Heat and Power

The OLSPG Energy Study provides detail on the OPDES, a decentralized energy network, which comprises in CCHP system (which combines electricity generation with heat production) and gas, oil and biomass boilers.

The energy network is served by two energy centres, one within Kings Yard to the west of the main Queen Elizabeth Olympic Park comprising of a heat generating biomass boiler and a natural gas powered CCHP which generates both heat (transferred through the network as hot water) and electricity. The second energy centre is located to the north of Stratford station and provides power, heat and cooling for Stratford City within the Legacy Corporation area. The energy centres have a modular design to enable them to be flexible with the potential of incorporating new technologies alongside the existing equipment to make the best use of a mix of technologies and fuel sources. Both energy centres also have the capacity to expand to serve further communities in the area and contribute to the reduction in CO2 emissions in the area from new development.

The district energy system operates under a concession agreement between the Legacy Corporation and the operator Engie. This agreement requires that all new development

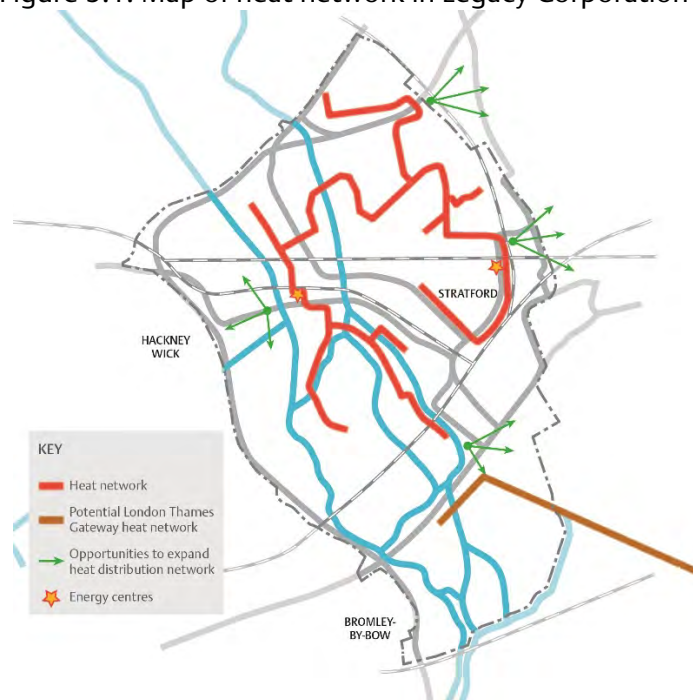
within the Olympic Park 'Exclusivity Area' purchase heat from the energy network and that Engie provides connections and supplies heat to developments within this area. As part of the LCS planning permission, PDZs 1-6 are required to connect to this network. Connecting to the network should help the LCS scheme achieve a substantial reducing in carbon dioxide emissions. Further work is being done to enable PDZs 8 and 12 to connect in future.

Whilst spare capacity was built into the energy centres, existing infrastructure such as railways and canals present significant barriers in expansion. The OLSPG Energy Study identified four key points where new connections could be provided to facilitate exit points and expansion as listed below and illustrated in Figure 5.1:

- Point A (London Borough of Waltham Forest heat export point) - to serve the sites at Leyton and Lea Bridge Road
- Point B (London Borough of Newham) – to serve development at Chobham Farm and Stratford Island
- Point C (already delivered) – already serves development on Stratford High Street, has the potential to serve further development at Sugar House Lane, West Ham and Bromley-by-Bow
- Point D – connection to Fish Island and Hackney Wick with the potential to serve sites west of the Queen Elizabeth Olympic Park in the London Boroughs of Hackney and Tower Hamlets, including as far west as Homerton Hospital and a number of housing estates, there is the potential of joining up to further energy networks, for instance that propose to link up to the energy recovery facility at the Edmonton EcoPark.

The further development of the energy network can be facilitated a range of methods including the provision of space in bridges and other planned infrastructure crossings. The Legacy Corporation Local Plan review can support this requirement. Funding for expansion plans may be required from a number of sources, including from the operator, from developers contribution and other funds that might be available such as grants.

Figure 5.1: Map of heat network in Legacy Corporation area



### *Future provision*

The Legacy Corporation are currently developing an energy strategy that will focus on future energy provision on sites owned by the Legacy Corporation. The energy strategy will highlight areas where there is a strain on supply for these specific sites and potential infrastructure need in these locations.

There are ambitions to extend the heat network from the Queen Elizabeth Olympic Park further into the areas outside the park. The Legacy Corporation's Local Plan and reviewed Local Plan continue to support development joining up to the heat network where viable.

The Legacy Corporation will continue to work closely, sharing information such as updated population projections, with utilities providers to ensure that adequate provision is maintained and delivered across the Legacy Corporation area.

### 5.3. Waste Management

Waste management requirements have expanded since the previous IDP report, with Household, Commercial & Industrial and Construction, Demolition & Excavation waste all referred to in the Draft New London Plan. London has seen a growth in the CDE waste stream, as the Local Authority Collected Waste – or Household Municipal Waste stream has reduced. This is due to the continued emphasis on waste reduction and recycling. The Draft New London Plan continues with the aim of London being net self-sufficient in relation to waste disposal, with a range of targets such as those around recycling set and an increased emphasis on the circular economy in policy.

Waste management in London is the responsibility of the London Boroughs as waste authorities. The London Plan using a methodology, which includes a variety of factors including population, apportions each of the London Boroughs an apportionment target of waste that they should manage. Although the Legacy Corporation is the planning authority for the Legacy Corporation area, it is not the waste management authority and therefore is not given an apportionment target in the London Plan. The London Boroughs are required to plan for their waste apportionment, however in many cases boroughs have joined together to produce joint waste plans, there are three waste authorities that cover the Legacy Corporation area:

- North London Waste Authority
- East London Waste Authority
- London Borough Tower Hamlets

Each of the waste management authorities is required to produce a waste plan, with the East London Joint Waste Development Plan adopted in February 2012 and LB Tower Hamlets producing a waste plan as part of its recent Local Plan review. The seven boroughs of the North London Waste Authority are still at draft stage with their waste plan. The Legacy Corporation is required to work with boroughs to support them in reaching their waste apportionment target. Specific waste planning Memorandums of Understanding have been agreed between LLDC and the North London Waste Authority boroughs and separately with LB of Tower Hamlets.

#### *Existing and planned provision*

There are currently four waste facilities in the Legacy Corporation area:

- McGrath Brothers, London Borough of Tower Hamlets
- J B Riney and Co, London Borough of Tower Hamlets
- Marshgate Sidings, London Borough of Newham
- Barbers Road Facility, London Borough of Newham

The McGrath Brothers site in Tower Hamlets is currently the subject of proposals for a mixed use residential development. The site operators have chosen to consolidate their waste operations and are therefore providing this waste usage elsewhere within Greater London, following London Plan policy.

The Legacy Corporation includes areas of Strategic Industrial Locations (SIL), the majority of these can be found to the south and west of the Legacy Corporation area. These areas of SIL are defined as being appropriate for a range of industrial usage, including waste management facilities. Therefore, these areas could be areas of search for sites for waste facilities, those that fall within the boundary of the London Borough of Tower Hamlets are included within their new Waste Plan which is yet to be adopted.

### *Future provision*

The Legacy Corporation will continue to work closely with the four boroughs and their constituent waste authorities to support them in fulfilling their waste apportionment targets. Waste sites in the Legacy Corporation area are safeguarded unless re-provision can be demonstrated to be taking place within Greater London as per London wide waste policy. The significant areas of SIL within the Legacy Corporation area provide the potential for new waste facilities to come forward further as an appropriate type of use within this land use designation.

## 5.4. Sewage

Sewage infrastructure includes foul water drainage and surface water drainage, the sewerage system which covers the majority of Greater London, including the Legacy Corporation area is operated by Thames Water. Thames Water as the sewerage operator covering the Legacy Corporation area have a requirement to ensure that adequate sewer treatment infrastructure is provided to meet the requirements of new development.

### *Existing and planned provision*

London is served by eight major sewage treatment works;

- Beckton
- Beddington
- Crossness
- Deephams
- Hogsmill
- Long Reach
- Mogden
- Riverside

Thames Water has been undergoing a program of investment into sewage treatment works, with the facility at Deephams having been extended, and works to expand Beckton sewage treatment works and upgrade Mogden sewage treatment works currently underway.

Currently when there is heavy surface runoff from rainwater London's combined system that collects surface water runoff and sewage still uses the River Thames and River Lea as an overflow outlet. The quality of the River Thames has improved in recent years, with wildlife, such as seals, now visible in the Thames estuary area. To continue to improve London's rivers and to prevent the overflow of sewage and surface water runoff during bad weather, Thames water are building the Thames Tideway Tunnel, which has been described as a super sewer. This tunnel will add significant capacity to London's combined sewage and surface runoff system, providing an alternative outlet for overflow than the Thames and River Lea, protecting the rivers from continued pollution by reducing sewage discharged into the River Thames by 95%. The sewage and surface runoff that flows through the Thames Tideway Tunnel will travel parallel to the River Thames until Limehouse, here it will travel to Abbey Mills Pumping station to the south of the Legacy Corporation area, where it will join the Lee Tunnel which was completed in 2016 and be pumped to the sewage works at Beckton. The Thames Tideway Tunnel is due to be completed in 2023.

The London Boroughs of Hackney, Newham and Tower Hamlets are all served by the sewage treatment works at Beckton, with the western part of the London Borough of Waltham Forest served by the sewage treatment works at Deephams. Both facilities have or are in the process of undergoing modernisation and expansion, with delivered infrastructure such as the Lee Tunnel supporting expanded provision for boroughs, when the Thames Tideway Tunnel is completed this expanded network capacity will benefit boroughs across Greater London.

### *Future provision*

Thames Water provide 5-year plans, the current plan being 2015-2020, with a 2020-2025 plan currently under development. Thames Water's on-going focus, in addition to serving existing and future development in the area they cover, is around sustainability,

extracting as much energy from their waste water network and recycling as much as possible.

As part of their 5-year plans, Thames Water set out plans for investment, expansion and modernisation at their sites in line with population growth. The 2015-2020 plan sets out that 18 Thames Water sewage facilities will have improvements works carried out during the plan period to keep pace with population growth, the initial information published with regards to the 2020-2025 plan sets out further investment in 37 waste water sites across their network. Thames Water 5-year plans are required to be submitted to, and agreed with, the regulator Ofwat.

Improving awareness around sewage and waste water, especially in relation to 'fat burgs' that have formed in the sewerage system, and improved efficiency in areas such as toilet flushing, with reducing amounts of water needed, amongst other measures means that updated flow rates are needed since the previous IDP report, to produce an accurate updated calculation of future need. Thames Water continue to plan based on population growth, and will include this within projections of their future capacity need, with the Legacy Corporation as the planning authority for the Legacy Corporation area working closely with Thames Water to support them in providing the relevant capacity for demand in the area.

## 5.5. Water

As with sewage and waste water, Thames Water is responsible for supplying water across Greater London, including the Legacy Corporation area, maintaining water infrastructure and planning for supply for new development and population growth. Thames Water 5-year plans are required to be submitted to, and agreed with, the regulator Ofwat.

### *Existing and planned provision*

Water resources continue to be planned for at a Water Resource Zone (WRZ) level, which is defined as the largest possible zone in which all water resources can be shared, ensuring that all customers experience the same level of service, with the Legacy Corporation falling within the London WRZ.

On average Londoners consume 156 litres of water per day per person, 17 litres above the national average. The Legacy Corporation, with the rest of Greater London, is in an area classified as seriously water-stressed. Greater London has been at risk of drought following two dry winters and saw water use restrictions imposed during 2006 and 2012. The Draft New London Plan acknowledges the importance of a good water supply to the health of residents and in supporting London's economy. The Draft New London Plan encourages the reduction of leakage from the network and the implementation of increased efficiency measures, which are reflected in Thames Water's 5-year plan 2015-2020.

The London's water is supplied from a variety of sources, including ground water, abstracted water from the River Thames and River Lea stored in reservoirs and boreholes, as well as treatment/re-use of effluent from sewage treatment works. Thames Water has a desalination plant in Beckton, which at times of peak stress has the ability to supply around 1 million people and can produce approximately 140 million litres of treated water each day.

The Thames Water Baseline Supply Demand Balance 2015-2040 highlights that by 2039/40 there will be a deficit of water supply in Greater London, and a deficit is noted in the wider south east. Therefore, Thames Water are developing plans to transfer water from the River Severn to the River Thames catchment as well as other opportunities for water transfer through the canal network. Long term plans are being developed for a new reservoir near the Upper Thames in Oxfordshire, that would provide water storage and enable water transfer, with the potential to supply a large area of the country. It is unclear as to when these projects will be put in place.

The Draft New London Plan and the four boroughs, as well as the Legacy Corporation, require provisions to be put in place in new develop to support reduced water used and efficiencies in this area, as well as using opportunities to reuse and recycle water.

As part of the development of the Queen Elizabeth Olympic Park, significant investment was made in utilities which were designed to meet anticipated long-term demand as part of the post games legacy of the 2012 Olympic Games. This included a primary water supply network. A condition of the LCS planning permission requires all residential buildings incorporate water efficient fixtures and fittings to reduce potable water use to 105 litres or less per person per day and that non-residential buildings meet as a minimum BREEAM credit Wat 2.

### *Future provision*

In addition to Thames Waters' long-term plans around water transfer and a new reservoir in the Upper Thames Valley, their current and draft 5-year business plans highlight



investment in reducing leakage in the existing water network. This program will continue, with a balance made between different measures to take pressure of water supply whilst providing an appropriate level of service to their customers. Other measures include metering, a program which Thames Water continue to roll out to households that have yet to be joined to a meter, and water efficiency, which covers a multiple of areas, not just within the Thames Water network, but also through education of users and encouragement of use of more water efficient fixtures and habit change.

Thames Water are currently consulting on a revised draft Water Resource Management Plan 2019. This draft includes updates to information based on updated population modelling, with London showing a deficit in water supply from 2024/2025, and includes an update to the preferred programme, as included in the previous IDP report, however this update is only in draft form so may undergo changes before the plan is put in place in 2019.

## 5.6. Flood Risk

The Legacy Corporation's location within the Lee Valley means that much of the area is located within zones at some risk of flooding. The Environment Agency define flood risk as both the likelihood of flooding The LLDC area does fall within flood risk zones and contains flood mitigation measures.

Table 5.3: Flood zone levels (as set out in National Planning Policy Guidance)

| Flood zone          | Definition  | Probability of flooding |
|---------------------|---|-------------------------|
| <b>Flood zone 1</b> | Land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%)  | Low probability         |
| <b>Flood zone 2</b> | Land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%) in any year | Medium probability      |
| <b>Flood zone 3</b> | Land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year                            | High probability        |

### *Existing and planned provision*

There are a range of bodies responsible for maintaining and renewing flood defences in the Legacy Corporation area, due to the complex reasons as to why flooding occurs. Flooding can occur from a variety of sources including groundwater, sewers, surface water runoff, rivers (fluvial) and tidal flooding. The bodies responsible for the Legacy Corporation area are:

- Thames Water
- The Environment Agency
- Canals and Rivers Trust
- Local authorities (Surface Water Management Plans/ Strategic Flood Risk Assessments (SFRA) and in their role as Lead Local Flood Authorities)
- Private individuals and landowners

Strategic flood defences in London include the Thames Barrier, which forms part of the tidal defences. It became operational in 1982 and has been closed 182 times, of these closures, 95 were to protect against tidal flooding and 87 were to protect against combined tidal/fluvial flooding, most of these closures have taken place since 2000.

The Queen Elizabeth Olympic Park forms part of the Lee Valley flood defences, with a basin in the park with the capacity to flood to relieve other areas in the Lee Valley. Hackney Marshes to the north west of the Legacy Corporation area has been the subject of preliminary work for a program of flood alleviation and habitat enhancement.

As part of the Local Plan review the Legacy Corporation commissioned a Flood Risk Review, analysing key development sites in the Legacy Corporation area, to update the information previously produced for the Local Plan, considering changes in modelling and population projections. Flood risk in the Legacy Corporation area continues to be highest in the south of the area and around Hackney Wick.

### *Future provision*

National, London wide and Legacy Corporation policy continues to emphasise the danger of flood risk for new development and the importance to mitigate the impact of

development and flood risk, through a range of measures including, for instance by incorporating sustainable drainage measures to development.

The Thames Estuary 2100 plan sets out how flood risk will be managed in the Thames estuary to the end of the century and beyond, including the future of the Thames Barrier, based on current information around climate change. It also recommends what actions the Environment Agency and others will need to take in the short term (the next 25 years), medium term (the following 15 years) and long term (to the end of the century).

Figure 5.2: Flood risk map of the Legacy Corporation area

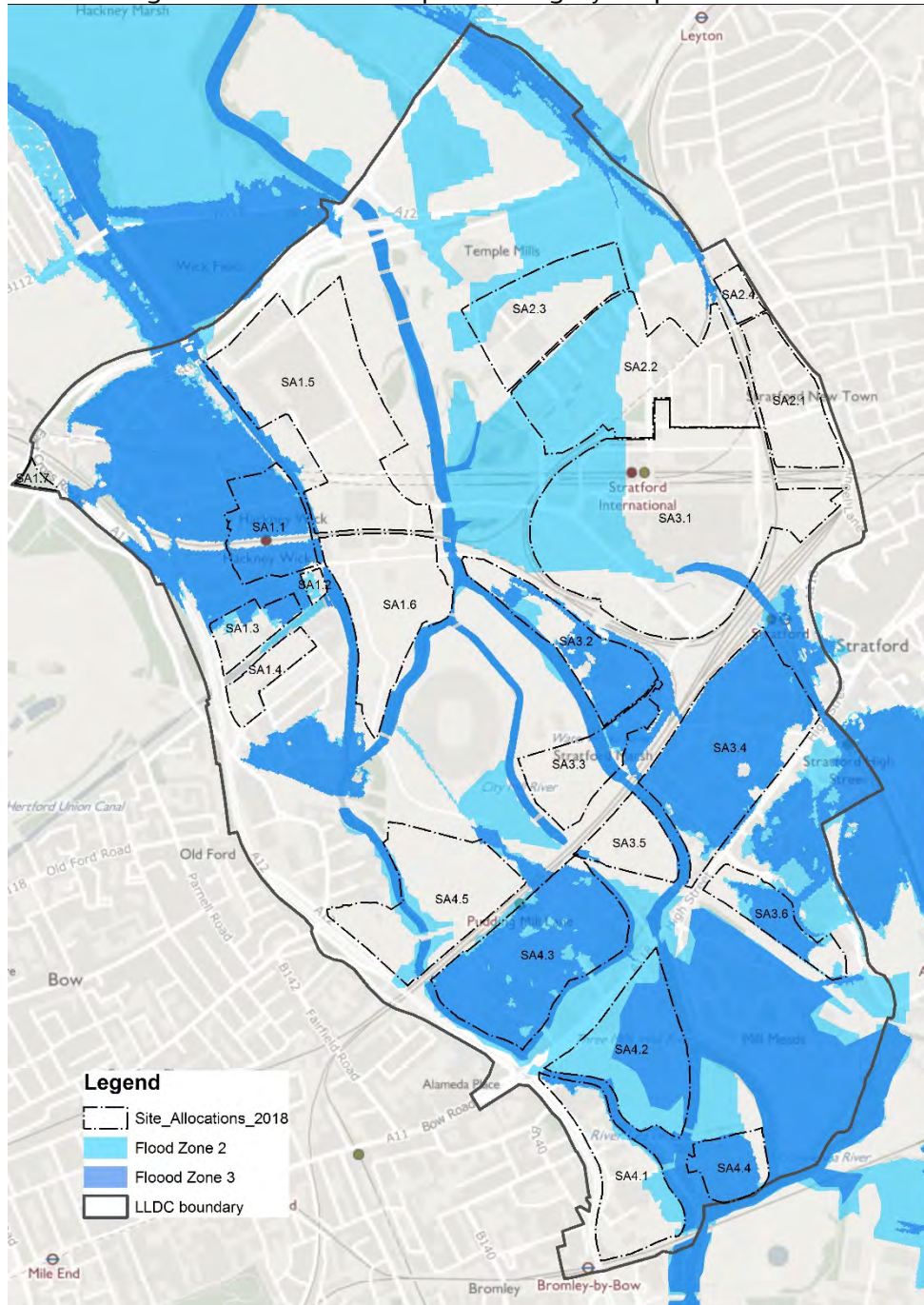


Table 5.4: IDP Project List Utilities and Hard Infrastructure

| Infrastructure Project  | Type of project                              | Status          | Phasing    | Delivery/other responsible agencies | Information Source   | Borough                  |
|---|--|-----------------|------------|-------------------------------------|--|--------------------------|
| Electricity sub-station upgrades in Bow and West Ham              | Electricity                                  | To be confirmed | Unknown    |                                     | LB of Tower Hamlets Core Strategy  | Tower Hamlets and Newham |
| 132kV power lines replacement in Stratford and West Ham           | Electricity                                  | To be confirmed | 2015-2019  |                                     | LB of Newham Core Strategy and LB of Newham CIL Infrastructure Planning and Funding Gap Report |                          |
| 132kV network between West Ham and Brunswick Wharf                | Electricity                                  | To be confirmed | 2015-2019  |                                     | LB of Newham Core Strategy and LB of Newham CIL Infrastructure Planning and Funding Gap Report |                          |
| 132kV network laid from West Ham to Orchard Place                 | Electricity                                  | To be confirmed | 2015-2019  |                                     | LB of Newham Core Strategy and LB of Newham CIL Infrastructure Planning and Funding Gap Report |                          |
| Provision of 26.3 MVA across the borough through various projects | Electricity                                  | To be confirmed | 2009- 2026 |                                     | LB of Waltham Forest Core Strategy   |                          |
| Beckton pressure reduction Station rebuild                        | Gas  | To be confirmed | 2014-2015  |                                     | LB of Newham Community Infrastructure Study Future Needs Report                                |                          |
| Point of Contact A, LB of Waltham Forest heat export point        | Combined Cooling, Heating and Power networks | To be confirmed | Unknown    |                                     | OLSPG Energy Study   |                          |

|   |  |                 |                   |  |  |  |
|---|--|-----------------|-------------------|--|--|--|
| Point of Contact B, LB of Newham heat export point                                  | Combined Cooling, Heating and Power networks | To be confirmed | Unknown           |  | OLSPG Energy Study   |  |
| Point of Contact D, connection to Fish Island and Hackney Wick                      | Combined Cooling, Heating and Power networks | To be confirmed | Unknown           |  | OLSPG Energy Study   |  |
| Newham Local Heat Network – connection from West Ham (Manor Road) to Greenway       | Combined Cooling, Heating and Power networks | To be confirmed | Unknown           |  | LB of Newham Community Infrastructure Study Future Needs Report, Royal Docks Infrastructure Study (Ramboll), Heat Network Local Development Order (March 2013) |  |
| Thames Tideway Tunnel combined sewer overflow improvement projects                  | Sewage                                       | To be confirmed | Approx. 2015-2020 |  | LB of Tower Hamlets Infrastructure Delivery Plan and Core Strategy; LB of Newham Core Strategy; LB of Hackney Infrastructure Assessment                        |  |
| Deephams STW  | Sewage                                       | To be confirmed | Approx. 2015      |  | Thames Water Investment Programme: Our plans for 2010-2015   |  |
| Beckton STW upgrade   | Sewage                                       | To be confirmed | Approx. 2015      |  | Thames Water Investment Programme: Our plans for 2010-2015   |  |
| Additional works to upgrade sewage works capacity as a result of residential growth | Sewage                                       | To be confirmed | Up to 2031        |  | Thames Water Investment Programme: Our plans for 2010-2015   |  |

|  |          |                          |                         |   |  |  |
|--|----------|--------------------------|-------------------------|---|--|--|
| INF3 waste site at Beckton Riverside                                       | Waste    | To be confirmed          | 2012-2015               |   | LB of Newham CIL Infrastructure Planning Report and East London Joint Waste              |  |
| North London Waste Plan  | Waste    | Currently at draft stage | Medium term             | North London Waste Plan   | North London Waste Plan<br>( <a href="http://www.nlwp.net">http://www.nlwp.net</a> )     |  |
| Hackney Wick and Hackney Marshes Flood alleviation and habitat enhancement | Flooding | To be confirmed          | Med / Long term         | LB of Hackney, Environment Agency, LB of Tower Hamlets, Canals and Rivers Trust | Consultation with Environment Agency and Hackney Level 2 Strategic Flood Risk Assessment |  |
| Strategic flood mitigation options   | Flooding | To be confirmed          | Short / Med term        | LB of Hackney, LB of Tower Hamlets, Environment Agency                          | Hackney Wick AAP   |  |
| Surface water flooding mitigation  | Flooding | To be confirmed          | Short / Med / Long term | LB of Hackney, Environment Agency   | Hackney Wick AAP   |  |

## **6. Infrastructure Requirements and Funding**

The previous IDP report gathered together information from boroughs, stakeholder and related reports and mapping work, to identify projects and costs for a Community Infrastructure Levy Regulation 123 Infrastructure List and an IDP Long List of Projects, providing the background work that has been built on for this report. Much of the work done as part of the previous IDP report is still pertinent, however this report has provided an update on available information, as well as projects delivered and changes in relation to population data. The IDP Project List has therefore been updated accordingly to reflect these changes, with projects delivered or no longer required having been removed from the list. New projects, where identified, have been added to the list, not just from studies and work done by the Legacy Corporation but from ongoing consultation with stakeholders. Where information is known, funding requirements and availability have been added to the list. The list forms Appendix 1 of this report.

The IDP Long List of projects identifies projects with a funding requirement of a total of £303,132,000, this includes proposed strategic infrastructure projects that fall within the Legacy Corporation area, including the proposed Overbridge Project for Stratford Station.

The IDP Long List of projects also identifies where funding has been identified or committed to a project. Currently there is £26,888,000 identified or committed to be spent on projects on the IDP Long List of Projects.

This therefore means that there is an infrastructure funding gap of £276,244,000 which is required to be met to deliver the projects listed on the IDP Project List. Whilst a number of projects have been delivered, such as the new station at Hackney Wick, in the period since the previous IDP report, local connectivity projects continue to be identified as necessary and added to the list and strategic projects such as that at Stratford station have also been added, which has created a significant increase in funding requirements.

There are a number of ways in which funding can be identified to go to projects included on the IDP Infrastructure Long List of Projects Firstly through core government funding and other provider investment. Through requirements on developers building in the Legacy Corporation area, the use of Section 106 agreements to mitigate the impact of development on the area through requiring funding or works in kind, and through the Community Infrastructure Levy (CIL) charging schedule that was adopted by the Legacy Corporation in 2015, and currently under review.

The CIL Regulation 123 Infrastructure List and IDP Project List will continue to be reviewed and updated on an annual basis, reflecting newly identified projects and funding sources, to ensure these lists are as relevant as possible in supporting delivery of infrastructure in the area to support development.

## **APPENDICES**

### **Appendix 1 – Draft IDP Projects List**



## Appendix 9: Draft Infrastructure Delivery Plan Project List

|    | Infrastructure Project  | Type of project                     | Status                             | Phasing                            | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements  | Delivery / other responsible agencies         | Information Source                                  | Local plan sub area and / or site allocation   | Borough       |
|----|---|-------------------------------------|------------------------------------|------------------------------------|-----------|------------------------|-------------|--|---|---|--|---------------|
| 1. | A 2FE primary school at Bromley by Bow South  | Education - Primary Schools         | No planning permission, no funding | Alongside development              | Unknown   | No                     | No          | Developer  | LB Tower Hamlets, tbc                         | SA4.1   | Sub Area 4, SA4.1  | Tower Hamlets |
| 2. | A 3FE primary school, Neptune Wharf (Fish Island)   | Education - Primary Schools         | Has funding or planning permission | Unknown                            | Unknown   | No                     | Yes         | Developer  | Developer / LB Tower Hamlets                  | Neptune Wharf Planning permission s106 agreement    | Sub Area 1, SA1.6 (current planning permission includes permission for D1 floorspace as well as land for primary school) | Tower Hamlets |
| 3. | Nursery - 220sqm (GEA) - PDZ 1 - Stratford Waterfront East  | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Unknown   | No                     | No          | Private sector provision - space / use secured through planning permission | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Sub Area 3, SA3.2  | Newham        |
| 4. | Nursery - 180sqm - PDZ 2 - Stratford Waterfront West  | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Unknown   | No                     | No          | Private sector provision - space / use secured through planning permission | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Sub Area 3, SA3.3  | Newham        |
| 5. | Nursery - 220sqm - PDZ 4 - Sweetwater   | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Unknown   | No                     | No          | Private sector provision - space / use secured through planning permission | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Sub Area 1, SA1.8  | Tower Hamlets |
| 6. | Two Nurseries - 360sqm (GEA) which can be provided as one or two premises - PDZ 5 - East Wick and Here East | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Unknown   | No                     | No          | Private sector provision - space / use secured through planning permission | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Sub Area 1, SA1.7  | Hackney       |
| 7. | Two Nurseries - 378sqm (GEA) which can be provided as one or two premises - PDZ 6 - Chobham Manor           | Education - Early years / Nurseries | Has funding or planning permission | Alongside development              | Unknown   | No                     | No          | Private sector provision - space / use secured through planning permission | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Sub Area 2, SA2.3  | Newham        |
| 8. | Two Nurseries - 360sqm (GEA) which can be provided as one or two premises - PDZ 8 - Pudding Mill            | Education - Early years / Nurseries | Has funding or planning permission | Delivery on site from 2021 onwards | Unknown   | No                     | No          | Private sector provision - space / use secured through planning permission | Provision of space through LCS s106 agreement | LCS s106 agreement - Nine nurseries, 50 places each | Sub Area 4, SA4.3  | Newham        |

**Appendix 9: Draft Infrastructure Delivery Plan Project List**

|     | Infrastructure Project   | Type of project                     | Status                             | Phasing         | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements | Delivery / other responsible agencies | Information Source                                  | Local plan sub area and / or site allocation   | Borough                |
|-----|--|-------------------------------------|------------------------------------|-----------------|-----------|------------------------|-------------|-------------------------------|---------------------------------------|---|--|------------------------|
| 9.  | A 1FE Nursery at Neptune Wharf Fish Island   | Education - Early years / Nurseries | Has funding or planning permission | Unknown         | Unknown   | No                     | Yes         | Developer                     |                                       | Neptune Wharf Planning Application (Options 2 or 3) | Sub Area 1, SA1.6 (current planning permission includes permission for D1 floorspace)            | Tower Hamlets          |
| 10. | A Children's Centre at Bromley By Bow new District Centre                                    | Education - Early years / Nurseries | No planning permission, no funding | Unknown         | Unknown   | No                     | Yes         | Unknown                       |                                       | Bromley by Bow Masterplan; Planning Application     | Sub Area 4, SA4.1 (specifies community facility rather than being specific to children's centre) | Tower Hamlets          |
| 11. | LCS - Primary Care Centre (PDZ 4, 2,554m <sup>2</sup> , six GPs and six dentists)            | Primary healthcare                  | Has funding or planning permission | 2014 - 2026     | Unknown   | Yes                    | No          | Developer                     |                                       | LCS Planning Application                            | Sub Area 1, SA1.8  | Tower Hamlets          |
| 12. | Walk-in centre (PDZ 8 645m <sup>2</sup> , two GPs and two dentists)                          | Primary healthcare                  | Has funding or planning permission | 2016 - 2026     | Unknown   | Yes                    | No          | Developer                     |                                       | LCS Planning Application                            | Sub Area 3 and 4, SA4.3 and SA3.5  | Newham                 |
| 13. | New community facilities in Hackney Wick Neighbourhood Centre                                | Primary healthcare                  | No planning permission, no funding | Med / Long term | Unknown   | No                     | Yes         | To be confirmed               |                                       | LLDC  | Sub Area 1, SA1.1 (specifies community facilities rather than being specific to a health centre) | Hackney/ Tower Hamlets |
| 14. | 1,000 – 2,500m <sup>2</sup> community and health space in the Greater Carpenters Estate area | Sports and Leisure                  | No planning permission, no funding | Unknown         | Unknown   | No                     | Yes         | Unknown                       |                                       | Stratford Metropolitan Masterplan                   | Sub Area 3   | Newham                 |
| 15. | Additional indoor tennis courts at Eton Manor  | Sports and Leisure                  | No planning permission, no funding | Medium term     | Unknown   | No                     | Yes         | Unknown                       | LTA/Tennis Foundation                 | LLDC  | Sub Area 4   | Waltham Forest         |

## Appendix 9: Draft Infrastructure Delivery Plan Project List

|     | Infrastructure Project  | Type of project    | Status                             | Phasing               | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements               | Delivery / other responsible agencies | Information Source  | Local plan sub area and / or site allocation | Borough                        |
|-----|---|--------------------|------------------------------------|-----------------------|-----------|------------------------|-------------|---|---------------------------------------|---|--|--------------------------------|
| 16. | Visitor moorings facilities (Provision of better boater facilities Visitor mooring in the Park with creation of pontoons north of the existing commercial moorings. Could be on a bookable basis) | Sports and Leisure | No planning permission, no funding | Short term            | Unknown   | Unknown                | Unknown     | Canal & River Trust, S106, LLDC             | Canal & River Trust, LLDC             | Canal & River Trust, Olympic Legacy Waterways Framework             | Sub Area 2                                   | Newham                         |
| 17. | LCS - 12.4ha open space within the red line boundary  | Open Space         | Has funding or planning permission | 2015 - 2031           | Unknown   | Yes                    | No          | Developer / LLDC (part of permitted scheme) |                                       | LCS Planning Application  | Sub Area 1, 2, 3 and 4                       | All                            |
| 18. | Public open space at Bromley by Bow North, Sugar House Lane, Bromley by Bow South, Hackney Wick   | Open Space         | Has funding or planning permission | Alongside development | Unknown   | Yes                    | No          | Developer (part of permitted schemes)       |                                       | LLDC consultation / relevant s.106 agreements                       | Sub Area 1 and 4, SA4.1, SA4.2, SA1.1        | Newham, Hackney, Tower Hamlets |
| 19. | New public spaces created alongside canal edge providing public access to the water and integrating informal connections  | Open Space         | No planning permission, no funding | Unknown               | Unknown   | No                     | Yes         | Unknown                                     | Canal & River Trust                   | LLDC  | Sub Area 1, SA1.1                            | Tower Hamlets                  |
| 20. | 1.2 ha local park, Fish Island / north of Hertford Union Canal  | Open Space         | Has funding or planning permission | Alongside development | £1.1M     | Yes                    | £1.1M       | s.106 / CIL contributions / capital funding | Canal & River Trust                   | Fish Island AAP   | Sub Area 1, SA1.3                            | Tower Hamlets                  |
| 21. | Opportunities for public space south of Hertford Union Canal  | Open Space         | Has funding or planning permission | Alongside development | Unknown   | No                     | Yes         | Unknown                                     |                                       | Local Plan and Neptune Wharf planning permission and s106 agreement | Sub Area 1, SA1.6                            | Tower Hamlets                  |
| 22. | Local / open square with connections to and from the Greenway in Fish Island south adjacent to 417 Wick Lane  | Open Space         | No planning permission, no funding | Alongside development | Unknown   | No                     | Yes         | Unknown                                     |                                       | Fish Island AAP   | Sub Area 1, SA1.5                            | Tower Hamlets                  |
| 23. | LCS - 29 children's play spaces / areas totalling 14,210m <sup>2</sup>  | Child Play Space   | Has funding or planning permission | 2015 - 2031           | Unknown   | Yes                    | No          | Developer                                   | LLDC                                  | LCS s.106 agreement   |  | All                            |

**Appendix 9: Draft Infrastructure Delivery Plan Project List**

|     | Infrastructure Project  | Type of project  | Status                             | Phasing  | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements | Delivery / other responsible agencies | Information Source  | Local plan sub area and / or site allocation | Borough       |
|-----|---|------------------|------------------------------------|--|-----------|------------------------|-------------|-------------------------------|---------------------------------------|---------------------|--|---------------|
| 24. | LCS children's play space PDZ1 - 900sqm comprising 2x doorstep play and 1x neighbourhood play         | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards   | Unknown   | Yes                    | No          | Developer                     | LLDC                                  | LCS s.106 agreement | Sub Area 3                                   | Newham        |
| 25. | LCS children's play space PDZ2 - 1145sqm comprising 3x doorstep play and 1x neighbourhood play        | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards   | Unknown   | Yes                    | No          | Developer                     | LLDC                                  | LCS s.106 agreement | Sub Area 3                                   | Newham        |
| 26. | LCS children's play space PDZ4 - 1344sqm comprising 3x doorstep play and 1x local play                | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards   | Unknown   | Yes                    | No          | Developer                     | LLDC                                  | LCS s.106 agreement | Sub Area 1 (SA1.7)                           | Hackney       |
| 27. | LCS children's play space PDZ5 - 2501sqm comprising 4x doorstep play, 1x local play and 1x Youth play | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards. Local Play and Youth play delivered (Canal Park) | Unknown   | Yes                    | No          | Developer                     | LLDC                                  | LCS s.106 agreement | Sub Area 1(SA1.8)                            | Tower Hamlets |
| 28. | LCS children's play space 1821sqm PDZ6 - comprising 3x doorstep play and 1x neighbourhood play        | Child Play Space | Has funding or planning permission | Delivery from 2016 onwards. Neighbourhood play delivered (Tumbling Play)     | Unknown   | Yes                    | No          | Developer                     | LLDC                                  | LCS s.106 agreement | Sub Area 2                                   | Newham        |
| 29. | LCS children's play space PDZ8 - 1605sqm comprising 2x doorstep play and 2x local play                | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards   | Unknown   | Yes                    | No          | Developer                     | LLDC                                  | LCS s.106 agreement | Sub Area 4 SA4.3                             | Newham        |
| 30. | LCS children's play space 1365sqm PDZ12 - comprising 1x local play                                    | Child Play Space | Has funding or planning permission | Delivery from 2021 onwards   | Unknown   | Yes                    | No          | Developer                     | LLDC                                  | LCS s.106 agreement | Sub Area 3 SA3.6                             | Newham        |
| 31. | Bromley by Bow South  | Child Play Space | No planning permission, no funding | Alongside development  | Unknown   | Yes                    | No          | Developer                     |                                       | Bromley by Bow SPD  | Sub Area 4                                   | Tower Hamlets |

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|     | Infrastructure Project  | Type of project  | Status                             | Phasing                                     | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements           | Delivery / other responsible agencies | Information Source                         | Local plan sub area and / or site allocation | Borough       |
|-----|---|--|------------------------------------|---|-----------|------------------------|-------------|---|---------------------------------------|--|--|---------------|
| 32. | Pudding Mill children's play space  | Child Play Space   | No planning permission, no funding | As development comes forward - 2015 onwards | Unknown   | No                     | Yes         | S106 agreement                          | Developer                             | Pudding Mill Land Use and Design Framework | Sub Area 4                                   | Newham        |
| 33. | Eastway Community Facility including children's play areas  | Child Play Space   | To be confirmed                    | Med / Long                                  | Unknown   | No                     | Yes         | Unknown                                 |                                       | Hackney Wick AAP                           | Sub Area 1                                   | Hackney       |
| 34. | Trowbridge Village Green renovation project   | Child Play Space   | To be confirmed                    | Unknown                                     | Unknown   | No                     | Yes         | Play Pathfinder                         |                                       | OLSPG Infrastructure Delivery Study        | Sub Area 1                                   | Hackney       |
| 35. | LCS - 2,423m <sup>2</sup> flexible community space, 1,258m <sup>2</sup> flexible cultural space, 3,606m <sup>2</sup> of flexible leisure space and an Idea Store (2,460m <sup>2</sup> ) | Libraries, Multi Use Community space and Cultural Facilities | Has funding or planning permission | Unknown                                     | Unknown   | Yes                    | No          | Developer funding                       | LLDC                                  | LCS s.106 agreement                        |  | All           |
| 36. | Stratford City - multi-use community facility of 1,572m <sup>2</sup> on the eastern side of the site  | Libraries, Multi Use Community space and Cultural Facilities | Has funding or planning permission | Unknown                                     | Unknown   | Yes                    | No          | Unknown                                 | Developer                             | Stratford City S106 agreement              | Sub Area 2                                   | Newham        |
| 37. | Bromley-by-Bow South community facility (1,315m <sup>2</sup> )  | Libraries, Multi Use Community space and Cultural Facilities | No planning permission, no funding | Alongside development                       | Unknown   | Yes                    | No          | Developer (provision as part of scheme) | Developer                             | Site allocation SA4.1                      | Sub Area 4                                   | Tower Hamlets |
| 38. | Local theatre run by 'The Yard Theatre' charity with main stage, public areas and rooms for community use   | Libraries, Multi Use Community space and Cultural Facilities | No planning permission, no funding | Unknown                                     | Unknown   | Unknown                | Yes         | Developer with the Yard Theatre         | The Yard Theatre                      | The Yard Theatre                           | Sub Area 1                                   | Tower Hamlets |
| 39. | 1,000 - 2,500m <sup>2</sup> new community and health space in the Greater Carpenters Estate   | Libraries, Multi Use Community space and Cultural Facilities | No planning permission, no funding | Unknown                                     | Unknown   | No                     | Yes         | Unknown                                 |                                       | Stratford Metropolitan Masterplan          | Sub Area 3, SA3.4                            | Newham        |

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|     | Infrastructure Project   | Type of project         | Status                              | Phasing  | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements   | Delivery / other responsible agencies | Information Source  | Local plan sub area and / or site allocation | Borough       |
|-----|--|-------------------------|-------------------------------------|--|-----------|------------------------|-------------|---|---------------------------------------|---|--|---------------|
| 40. | Improving pedestrian and cycle links across the A12 south of Bow Roundabout and improved pedestrian and cycle environment along the A12 corridor.            | Local Transport Schemes | No planning permission, no funding  | Medium-Long term                                   | £7.0- 12M | £7.0- 12M              | Yes         | s.106 /278 agreement from forthcoming development at Bromley by Bow South and TfL funding     | Developer / TfL                       | LLDC/TfL  | Sub Area 4, SA4.1                            | Tower Hamlets |
| 41. | A12 subway by Bromley by Bow Station   | Local Transport Schemes | No planning permission, no funding  | Medium term  | Unknown   | Unknown                | Unknown     | Unknown   | TfL/Developer                         | TfL/Developer   | Sub Area 4                                   | Tower Hamlets |
| 42. | Bromley by Bow Underground Station   | Local Transport Schemes | Being implemented                   | Short term (planning permission granted July 2015) | £10M      | £10M                   | No          | S106: £3.5M St Andrews, £700,000 Bromley by Bow north £75,000 Sunflour Mill = £4,275,000, TfL | LUL/Developer/TfL                     | TfL Business Plan OLSPG Strategic Transport Study. OLSPG Infrastructure Delivery Plan | Sub Area 4                                   | Tower Hamlets |
| 43. | Lift from Bromley by Bow Underground Station to Lower level  | Local Transport Schemes | No planning permissions, no funding | Short term   | £2M       | No                     | Yes         | Funding TBC   | TBC                                   | BBB Station Phase 2 works   | Sub Area 4                                   | Tower Hamlets |
| 44. | Improve pedestrian and cycle route under the A12 from Eastway to Mabley Green  | Local Transport Schemes | No planning permission, no funding  | Long term  | Unknown   | No                     | Yes         | TBC s106 / TfL / LLDC   |                                       | Hackney Wick & Fish Island Supplementary Planning Document                            | Sub Area 1                                   | Hackney       |
| 45. | Further upgraded pedestrian / cycle connection over the A12 from Wallis Road to Cadogan Terrace.   | Local Transport Schemes | No planning permission, no funding  | Long term  | Unknown   | No                     | Yes         | s.106/CIL / TfL / LLDC  |                                       | Hackney Wick & Fish Island Supplementary Planning Document                            | Sub Area 1                                   | Tower Hamlets |
| 46. | A new link between Fish Island North and Fish Island Mid to provide a more direct route between the hub at Hackney Wick and Fish Island Mid (includes Bridge | Local Transport Schemes | Has funding or planning permission  | Short term   | £4.6M     | No                     | Yes         | s.106 / CIL   | Canal & River Trust                   | Fish Island AAP   | Sub Area 1, SA1.3                            | Tower Hamlets |

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|     | Infrastructure Project   | Type of project         | Status                             | Phasing     | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements                                | Delivery / other responsible agencies | Information Source   | Local plan sub area and / or site allocation               | Borough       |
|-----|--|-------------------------|------------------------------------|-------------|-----------|------------------------|-------------|--|---------------------------------------|--|--|---------------|
|     | over Hertford Union Canal)   |                         |                                    |             |           |                        |             |  |                                       |  |  |               |
| 47. | New link across Hertford Union Canal bottom lock, from Smeed Garden through McGrath Site   | Local Transport Schemes | No planning permission, no funding | Medium term | Unknown   | No                     | Yes         | Developer/S.106/CIL  | Developer                             | LLDC   | Sub Area 1   | Tower Hamlets |
| 48. | Upgrade of existing bridge over the Old River Lea (south of Old Ford Lock) for use by cycles and wheelchairs by adding ramp                            | Local Transport Schemes | No planning permission, no funding | Long term   | £232,000  | No                     | £232,000    |  | Canal & River Trust/LLDC              | Canal Park project scoping                                 | Sub Area 1   | Tower Hamlets |
| 49. | New pedestrian/cycle connection from Crown Close/Wick Lane to Greenway (ramp/stairs)   | Local Transport Schemes | No planning permission, no funding | Short term  | £600,000  | 300,000                | Yes         | s.106/LLDC   | Developer                             | LBTH/OPLC connections study and HWFI public realm strategy | Sub Area 1, SA1.5  | Tower Hamlets |
| 50. | New rail bridge connection across the River Lea at Autumn Street or Riverside Wharf (dependent on the future of Bow Midland East rail yard in Newham). | Local Transport Schemes | No planning permission, no funding | Long term   | Unknown   | No                     | Yes         |  | Canal & River Trust                   | Fish Island AAP  | Employment cluster designation B.1a3 (Bow Goods Yard East) | Tower Hamlets |
| 51. | A12 underpass improvements Wick Lane   | Local Transport Schemes | No planning permission, no funding | Short term  | £500,000  | No                     | Yes         | LLDC / TfL / S106 / CIL                                      | LLDC                                  | HWFI Connectivity Study                                    | Sub Area 1   | Tower Hamlets |
| 52. | Upgraded pedestrian and cycle facilities at Wansbeck Road crossing   | Local Transport Schemes | No planning permission, no funding | Short term  | £250,000  | No                     | £250,000    | LLDC / LBTH / S106 / CIL                                     | LLDC/LBTH                             | Hackney Wick & Fish Island Supplementary Planning Document | Sub Area 1   | Tower Hamlets |
| 53. | Bromley by Bow Project: new junction   | Local Transport Schemes | No planning permission, no funding | Medium term | TBC       | TBC                    | Yes         | Funding TBC, identified as part of Bow Vision and A12 Study* | TfL (Bow Vision)                      | Local Plan/TfL Bow Vision/TfL A12 Study                    | Sub Area 4   | Tower Hamlets |

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|     | Infrastructure Project   | Type of project         | Status                             | Phasing             | Cost (£M)                            | Committed funding (£M)          | Funding gap | Funding / source arrangements                  | Delivery / other responsible agencies  | Information Source   | Local plan sub area and / or site allocation | Borough                 |
|-----|--|-------------------------|------------------------------------|---------------------|--------------------------------------|---------------------------------|-------------|--|--|--|--|-------------------------|
| 54. | A12 Streetscape outside BBB Station  | Local Transport Schemes | No planning permission, no funding | Medium term         | Unknown                              | no                              | Yes         | TfL and developer s106                         | TfL (Bow Vision)   | Local Plan/BBB Station Public Realm works/Forthcoming Bromley by Bow SPD | Sub Area 4                                   | Tower Hamlets           |
| 55. | A12 30mph Speed limit  | Local Transport Schemes | No planning permission, no funding | Medium term         | Unknown                              | no                              | Yes         | TfL, A12 RTF Study*                            | TfL  | TfL A12 RTF Study  | Sub Area 4                                   | Tower Hamlets, Hackney, |
| 56. | Franklin Street pedestrian crossing  | Local Transport Schemes | No planning permission, no funding | Short term          | Part of £7-£12M junction improvement | Yes part TfL part BBB developer | Yes         | Estimate based other A12 surface crossings*    | TfL  | Local Plan   | Sub Area 4                                   | Tower Hamlets           |
| 57. | Environmental Enhancement of Hancock Road  | Local Transport Schemes | No planning permission, no funding | Medium Term         | £1.8M                                | no                              | Yes         | Funding TBC*                                   | TfL and Developer. Related to the Bow South development and Bow Vision   | TfL A12 Study  | Sub Area 4                                   | Tower Hamlets           |
| 58. | Bow Interchange (Flyover removal)  | Local Transport Schemes | No planning permission, no funding | Medium term         | £54M                                 | yes                             | Yes         | Funding TBC, identified as part of Bow Vision* | TfL (Bow Vision)   | TfL Bow Vision   | Sub Area 4                                   | Tower Hamlets           |
| 59. | Upgrade of subway connection from Olympic Park at U07 under the Green Way on City Mill River           | Local Transport Schemes | No planning permission, no funding | Short / Med term    | Unknown                              | No                              | Yes         | CIL/s106/LLDC                                  | Crossrail/Canal & River Trust /LLDC/Newham   | Canals and Rivers Trust  | Sub Area 4                                   | Newham                  |
| 60. | Upgrade of access point from Green Way to towpath at the cross of the River Lea and upgrade to towpath | Local Transport Schemes | No planning permission, no funding | Short / Med term    | Unknown                              | No                              | Yes         | CIL/s106/LLDC                                  | Canal & River Trust /LLDC/Newham   | Canals and Rivers Trust  | Sub Area 4                                   | Newham                  |
| 61. | New bus/ped/cycle bridge over the Bow Back river at Marshgate Lane, Pudding Mill Lane                  | Local Transport Schemes | No planning permission, no funding | Short / Medium term | £3.8M                                | No                              | Yes         | s106   | Developer - part provision made through s106 for Porsche garage site. Linked to the Marshgate Lane junction proposals/ Canal & River Trust | Stratford Metropolitan Masterplan Transport Study                        | Sub Area 4, SA4.3                            | Newham                  |
| 62. | Highway improvements in the Chobham Farm Area improving East-West local connectivity                   | Local Transport Schemes | No planning permission, no funding | Short / Med term    | Unknown                              | Yes                             | No          | Developer                                      | Chobham Farm s106 provides funding for study   | Stratford Metropolitan Masterplan Transport Study                        | Sub Area 2, SA2.1                            | Newham                  |



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|-----|---|-------------------------|--|------------------|----------------|------------------------|----------------|---|--|---|--|---------|
| 63. | Bridge from IQL to Stratford Waterfront over rail tracks  | Local Transport Schemes | No planning permission, no funding   | Short term       | £9M            | No                     | Yes            | Developer   | Passive safeguarding in Stratford City zone 2 s106 (TIQ). Potential to be brought forward as part of Stratford Waterfront development. | LLDC 10 Year Plan   | Sub Area 2, SA3.2, SA3.3                     | Newham  |
| 64. | LCS – Bridgewater Road bridge – Pudding Mill  | Local Transport Schemes | Has funding or planning permission   | Assumed 2021     | Unknown        | No                     | Unknown        | Developer   | Developer/ Canal & River Trust   | LCS planning permission   | Sub Area 4                                   |         |
| 65. | Downscaling of Warton Road junction   | Local Transport Schemes | No planning permission, no funding   | Med term         | £800,000       | No                     | £300,000       | Unknown   | Newham   | Stratford Metropolitan Masterplan Transport Study                                     | Sub Area 3, SA3.3                            | Newham  |
| 66. | E38 Carpenters Road Underpass and surrounding environment   | Local Transport Schemes | No planning permission, no funding   | 2020             | Unknown        | Unknown                | Unknown        | Unknown   | Newham, LLDC & Network Rail  | LLDC Connectivity Study   | Sub Area 3                                   | Newham  |
| 67. | Direct access into Stratford Station from Carpenters area - including new entrance to Stratford Station | Local Transport Schemes | Has funding or planning permission   | Short term       | £6.2M          | £4.2M                  | Yes            | £3.22M from LLV pooled funds and s106 contributions and £1M from LLDC |  | Stratford Metropolitan Masterplan Transport Study                                     | Sub Area 3, SA3.4                            | Newham  |
| 68. | Direct access into Stratford Station from Carpenters area - new Jupp Road Bridge                        | Local Transport Schemes | No planning permission, no funding   | Medium term      | £7M            | No                     | Yes            | CIL/S106/Developer  | LLDC/Newham  | Stratford Metropolitan Masterplan Transport Study                                     | Sub Area 3, SA3.4                            | Newham  |
| 69. | Improved pedestrian and cycle connections between Carpenters area and Stratford Town Centre             | Local Transport Schemes | No planning permission, no funding   | Short / Med term | £800,000       | No                     | £800,000       | Unknown   |  | Stratford Metropolitan Masterplan Transport Study                                     | Sub Area 3, SA3.4                            | Newham  |
| 70. | Stratford Station western overbridge  | Local Transport Schemes | No planning permission, no funding   | Long term        | £80-120million | £1million              | £79-119million | TfL, LLDC, Section 106, CIL, Newham, GLA                              | TfL/NR/LLDC  | TfL LU Outcome Definition Study, Crossrail Legion Model, Overbridge Feasibility Study | Sub Area 3                                   | Newham  |
| 71. | Angel Lane entrance Stratford Station – direct access into Stratford Station via a disused ticket       | Local Transport Schemes | Passive Provision within Westfield YHA/Office planning application, no funding | Short term       | £4million      | £2million              | £2million      | TfL, LLDC, Section 106, CIL, Newham, GLA                              | TfL/Developer  | TfL LU Outcome Definition Study, and South-eastern Ticket Hall Feasibility Study      | Sub Area 3                                   | Newham  |

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|     | Infrastructure Project   | Type of project         | Status                             | Phasing               | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements             | Delivery / other responsible agencies                                 | Information Source  | Local plan sub area and / or site allocation | Borough                |
|-----|--|-------------------------|------------------------------------|-----------------------|-----------|------------------------|-------------|---|---|---|--|------------------------|
|     | hall to Eastern subway onto the NR platforms   |                         |                                    |                       |           |                        |             |   |   |   |  |                        |
| 72. | Lift change at western subway of Stratford Station   | Local Transport Schemes | No planning permission, no funding | Med/ long term        | £3million | £3million              | No          | TfL/LLDC/GLA                              | TfL/LLDC  | TfL LU Outcome Definition Study, Crossrail Legion Model           | Sub Area 3                                   | Newham                 |
| 73. | Events Entrance at platform 1 Stratford Station  | Local Transport Schemes | No planning permission, no funding | Med/ long term        | Unknown   | No                     | Unknown     | Unknown                                   | Unknown   | Transport Study 2018  | Sub Area 3                                   | Newham                 |
| 74. | New Event Day Entrance to Stratford Station via Northern Ticket Hall                                     | Local Transport Schemes | No planning permission, no funding | Short term            | Unknown   | No                     | Unknown     | Unknown                                   | TfL   | TfL Outcome Definition Study, Event Day Entrance Legion Modelling | Sub Area 3                                   | Newham                 |
| 75. | Stratford Station Platform 13 entrance   | Local Transport Schemes | No planning permission, no funding | Med/ long term        | Unknown   | No                     | Unknown     | Unknown                                   | Unknown   | Transport Study 2018  | Sub Area 3                                   | Newham                 |
| 76. | Stratford station southern ticket hall expansion   | Local Transport Schemes | No planning permission, no funding | Short term            | Unknown   | Unknown                | Unknown     | Unknown                                   | TfL   | TfL LU Outcome Definition Study                                   | Sub Area 3                                   | Newham                 |
| 77. | Pedestrian and cycle bridge between the Bisson Road and Sugar House Lane areas, via Three Mills          | Local Transport Schemes | Being implemented                  | Med / Long term       | £700,000  | No                     | £700,000    | Unknown                                   | Sugar House Lane s106, Canal & River Trust                            | Stratford Metropolitan Masterplan Transport Study                 | Sub Area 4, SA4.2                            | Newham                 |
| 78. | Bridges between Bromley by Bow and Sugar House Lane, including bus bridge at Culvert Drive               | Local Transport Schemes | Has funding or planning permission | Short / Med term      | Unknown   | Yes                    | Unknown     | Developer                                 | Sugar House Lane s106, Bromley by Bow North s106, Canal & River Trust | s106 agreements   | Sub Area 4, SA4.1, SA4.2                     | Newham , Tower Hamlets |
| 79. | Direct link between Sugar House Lane and Marshgate Lane / Marshgate Lane /Stratford High Street junction | Local Transport Schemes | Has funding or planning permission | Short term            | £3.5M     | Yes - £2.65M           | £850,000    | Landprop to fund and deliver SHS junction |   | Stratford Metropolitan Masterplan Transport Study, Bow Vision     | Sub Area 4, SA4.3                            | Newham                 |
| 80. | Cooks Road / Stratford High Street junction - left   | Local Transport Schemes | No planning permission, no funding | Alongside development | Unknown   | None                   | Yes         | s.106 as part of development              | TfL / LB Newham / developer   | Bow Vision  | Sub Area 4                                   | Newham                 |

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|     | Infrastructure Project   | Type of project         | Status                             | Phasing         | Cost (£M)            | Committed funding (£M) | Funding gap | Funding / source arrangements | Delivery / other responsible agencies | Information Source  | Local plan sub area and / or site allocation            | Borough               |
|-----|--|-------------------------|------------------------------------|-----------------|----------------------|------------------------|-------------|-------------------------------|---------------------------------------|---|---|-----------------------|
|     | turn required from SHS to Cooks Road   |                         |                                    |                 |                      |                        |             |                               |                                       |   |   |                       |
| 81. | Cooks Road Bridge widening over Bow Back River   | Local Transport Schemes | No planning permission, no funding | Med / Long term | £100,000 to £400,000 | No                     | Yes         | s106                          | Developer/LLDC                        | Pudding Mill Land Use and Design Framework, Canal & River Trust | Sub Area 4, SA4.3                                       | Newham                |
| 82. | Downgrading of Stratford High Street, including improved public realm and narrowing to northeast of Warton Road, or addition of bus lanes.   | Local Transport Schemes | No planning permission, no funding | Med term        | Unknown              | No                     | Yes         | Unknown                       |                                       | Stratford Metropolitan Masterplan Transport Study               | Sub Area 3  | Newham                |
| 83. | Pudding Mill Lane west-east bridge over A12 at Five Bells Wrexham Road   | Local Transport Schemes | No planning permission, no funding | Long term       | £6million            | None                   | Yes         | s.106/CIL / TfL / LLDC        | TfL / LB Tower Hamlets, LB Newham     | LLDC  | Sub Area 4  | Newham, Tower Hamlets |
| 84. | A12 Road Bridge at Crown Close and Old Ford Road   | Local Transport Schemes | No planning permission, no funding | Med term        | £20M                 | No                     | £20M        | CIL and TfL funding           | LLDC / TfL                            | Local Plan  | Sub Area 1, none new - shown on Figure 29 in Local Plan | Tower Hamlets         |
| 85. | Leaway 2 - Link between Twelvetrees Bridge and Lea Valley Walk - new stairs, lift and ramps, and associated public realm - new local connection between Bromley by Bow to Stratford and QEOP to River Thames | Local Transport Schemes | Being implemented                  | Short term      | £5M                  | No                     | £5M         | LLDC/TfL/LBN/GLA              | LLDC/LBN/ Canal & River Trust         | Lea River Park Primer, Fatwalk Stage E                          | N/A   | Newham                |
| 86. | Upgraded pedestrian link (new ramp) from Dace Road to the Greenway   | Local Transport Schemes | No planning permission, no funding | Med term        | £600,000             | No                     | Yes         | s.106 /CIL / LLDC             |                                       | Hackney Wick & Fish Island Supplementary Planning Document      | Sub Area 1  | Tower Hamlets         |

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|-----|---|-------------------------|------------------------------------|-------------|---------------------|------------------------|-------------|-------------------------------|---------------------------------------|--|--|------------------------|
| 87. | Warton Road pedestrian/cycle route and associated public realm works – to add new pedestrian footway underneath railway tracks on western side  | Local Transport Schemes | Has funding or planning permission | Medium term | £900,000            | Yes                    | £200,000    | Unknown                       | Newham / LLDC/ Canal & River Trust    | Stratford Transport Implementation Group (STIG), S106 agreements, Newham | Sub Area 3                                   | Newham                 |
| 88. | LCS planning permission projects/upgrades   | Local Transport Schemes | Has funding or planning permission | Long Term   | Unknown             | Yes                    | No          | LCS S106                      |                                       | LCS Planning Permission  |  | All                    |
| 89. | TfL Cycle Hire within Hackney Wick & Fish Island  | Local Transport Schemes | Partially complete                 | Med Term    | £500,000            | Yes                    | Unknown     | TfL/S106                      | TfL                                   | TfL internal work  | Sub Area 1                                   | Tower Hamlets, Hackney |
| 90. | TfL Cycle Hire - Chobham Manor  | Local Transport Schemes | No planning permission, no funding | Med Term    | £200,000            | No                     | Unknown     | TfL/S106                      | TfL                                   | TfL internal work  | Sub Area 2                                   | Newham                 |
| 91. | TfL Cycle Hire - Other LCS PDZs and remaining LLDC area £2,450,000. The £200k for Here East would be considered part of this area   | Local Transport Schemes | Partially complete                 | Med Term    | £2.45M              | £200k                  | £2.25M      | £200k Here East S106          | TfL                                   | TfL internal work  | Sub Area 1 and 4                             | Hackney                |
| 92. | Montfichet Road/Westfield Avenue highway/public realm works, Stratford City bus station access. Carriageway reduction and reallocation to urban realm and cycle/pedestrian space. Provision of segregated cycle facilities. | Local Transport Schemes | No planning permission, no funding | Medium Term | £3.4million approx. | £540,000               | Unknown     |                               | LLDC/LBN                              | LLDC feasibility study, Mott McDonald & urban initiatives                | Sub Area 2                                   | Newham                 |
| 93. | Montfichet Road West – Link to Pool Street/Loop Road pedestrian connection  | Local Transport Schemes | No planning permission, no funding | 2020        | Unknown             | Unknown                | Unknown     | Unknown                       | Newham/LLDC                           | LLDC Connectivity Study  | Sub Area 3                                   | Newham                 |

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|      | Infrastructure Project  | Type of project                   | Status  | Phasing                    | Cost (£M) | Committed funding (£M)           | Funding gap | Funding / source arrangements | Delivery / other responsible agencies | Information Source                | Local plan sub area and / or site allocation | Borough                  |
|------|---|-----------------------------------|---|----------------------------|-----------|----------------------------------|-------------|-------------------------------|---------------------------------------|-----------------------------------|--|--------------------------|
| 94.  | Electric Vehicle Charging Infrastructure  | Local/Strategic Transport Schemes | No planning permission, no funding  | 2018-19                    | Unknown   | Unknown                          | Unknown     |                               | LBH/TfL                               | Hackney Transport Strategy        | Sub Area 1                                   | Hackney                  |
| 95.  | Hackney Wick Zero Emissions Network (ZEN) and associated Neighbourhood Programme  | Strategic Transport Schemes       | No planning permissions, no funding   | 2020 onwards               | Unknown   | Unknown                          | Unknown     | LBH                           | LBH                                   | Hackney Transport Strategy        | Sub Area 1                                   | Hackney                  |
| 96.  | Pedestrian and Cycle link between Leyton and Olympic Park between Ruckholt Road and Temple Mills Lane   | Local Transport Schemes           | No planning permission, no funding – Waltham Forest are currently undertaking early stage feasibility on this, including understanding land ownership | Medium term                | Unknown   | Unknown                          | Unknown     | LBWF                          | LBWF                                  | Lea Bridge and Leyton Vision      | Sub Area 2                                   | Waltham Forest           |
| 97.  | Cycle Lane provision between Eastway/Ruckholt Road and A12  | Local Transport Schemes           | No planning permission, no funding  | Medium term                | Unknown   | Unknown                          | Unknown     | LBWF                          | LBWF                                  | Lea Bridge and Leyton Vision      | Sub Area 2                                   | Waltham Forest           |
| 98.  | Bus network enhancements – to match the increasing travel demands resulting from the growth in the LLDC area and provide links to neighbouring communities and facilities | Local Transport Schemes           | No planning permission, no funding  | Medium term                | Unknown   | Unknown                          | Unknown     |                               | TfL                                   | TfL                               |  | All boroughs             |
| 99.  | Downgrade of Great Eastern Road/Stratford Gyratory – removal of gyratory – TfL Major Schemes  | Strategic Transport Schemes       | Being Implemented   | Med term – completion 2019 | £17.8M    | £998k committed for design phase | £16.8M      | S106/CIL/TfL/LBN              | LBN                                   | TfL Major Schemes Programme       | N/A  | Newham                   |
| 100. | Electricity sub-station upgrades in Bow and West Ham  | Electricity                       | To be confirmed   | Unknown                    | Unknown   | Unknown                          | Unknown     | National Grid                 |                                       | LB of Tower Hamlets Core Strategy |  | Tower Hamlets and Newham |
| 101. | 132kV power lines replacement in  | Electricity                       | To be confirmed   | 2015-2019                  | Unknown   | Yes                              | No          | EDF                           |                                       | LB of Newham Core Strategy        |  |                          |

## Appendix 9: Draft Infrastructure Delivery Plan Project List

|      | Infrastructure Project  | Type of project                              | Status          | Phasing    | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements | Delivery / other responsible agencies | Information Source   | Local plan sub area and / or site allocation | Borough |
|------|---|--|-----------------|------------|-----------|------------------------|-------------|-------------------------------|---------------------------------------|--|--|---------|
|      | Stratford and West Ham  |  |                 |            |           |                        |             |                               |                                       | and LB of Newham CIL Infrastructure Planning and Funding Gap Report                            |  |         |
| 102. | 132kV network between West Ham and Brunswick Wharf                | Electricity                                  | To be confirmed | 2015-2019  | Unknown   | Yes                    | No          | EDF                           |                                       | LB of Newham Core Strategy and LB of Newham CIL Infrastructure Planning and Funding Gap Report |  |         |
| 103. | 132kV network laid from West Ham to Orchard Place                 | Electricity                                  | To be confirmed | 2015-2019  | Unknown   | Yes                    | No          | EDF                           |                                       | LB of Newham Core Strategy and LB of Newham CIL Infrastructure Planning and Funding Gap Report |  |         |
| 104. | Provision of 26.3 MVA across the borough through various projects | Electricity                                  | To be confirmed | 2009- 2026 | Unknown   | Unknown                | Unknown     | Unknown                       |                                       | LB of Waltham Forest Core Strategy   |  |         |
| 105. | Beckton pressure reduction Station rebuild                        | Gas  | To be confirmed | 2014-2015  | Unknown   | Yes                    | No          | National Grid                 |                                       | LB of Newham Community Infrastructure Study Future Needs Report                                |  |         |
| 106. | Point of Contact A, LB of Waltham Forest heat export point        | Combined Cooling, Heating and Power networks | To be confirmed | Unknown    | Unknown   | Unknown                | Unknown     | Unknown                       |                                       | OLSPG Energy Study   |  |         |
| 107. | Point of Contact B, LB of Newham heat export point                | Combined Cooling, Heating and Power networks | To be confirmed | Unknown    | Unknown   | Unknown                | Unknown     | Unknown                       |                                       | OLSPG Energy Study   |  |         |
| 108. | Point of Contact D, connection to Fish Island and Hackney Wick    | Combined Cooling, Heating and Power networks | To be confirmed | Unknown    | Unknown   | Unknown                | Unknown     | Unknown                       |                                       | OLSPG Energy Study   |  |         |

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|      | Infrastructure Project  | Type of project                              | Status   | Phasing                     | Cost (£M)                                      | Committed funding (£M)  | Funding gap             | Funding / source arrangements         | Delivery / other responsible agencies   | Information Source   | Local plan sub area and / or site allocation   | Borough |
|------|---|--|--|-----------------------------|--|-------------------------|-------------------------|---------------------------------------|---|--|--|---------|
| 109. | Newham Local Heat Network – connection from West Ham (Manor Road) to Greenway       | Combined Cooling, Heating and Power networks | To be confirmed  | Unknown                     | Unknown  | Unknown                 | Unknown                 | Unknown                               |   | LB of Newham Community Infrastructure Study Future Needs Report, Royal Docks Infrastructure Study (Ramboll), Heat Network Local Development Order (March 2013) |  |         |
| 110. | Thames Tideway Tunnel combined sewer overflow improvement projects                  | Sewage                                       | To be confirmed  | Approx. 2015-2020           | £4.1 billion                                   | Yes                     | No                      | Thames Water and Ofwat                |   | LB of Tower Hamlets Infrastructure Delivery Plan and Core Strategy; LB of Newham Core Strategy; LB of Hackney Infrastructure Assessment                        |  |         |
| 111. | Deephams STW  | Sewage                                       | To be confirmed  | Approx. 2015                | As part of an allocated £675M for STW upgrades | Yes                     | No                      | Unknown                               |   | Thames Water Investment Programme: Our plans for 2010-2015   |  |         |
| 112. | Beckton STW upgrade   | Sewage                                       | To be confirmed  | Approx. 2015                | As part of an allocated £675M for STW upgrades | Yes                     | No                      | Unknown                               |   | Thames Water Investment Programme: Our plans for 2010-2015   |  |         |
| 113. | Additional works to upgrade sewage works capacity as a result of residential growth | Sewage                                       | To be confirmed  | Up to 2031                  | Unknown  | No                      | Yes                     | Unknown                               |   | Thames Water Investment Programme: Our plans for 2010-2015   |  |         |
| 114. | INF3 waste site at Beckton Riverside  | Waste  | To be confirmed  | 2012-2015                   | Unknown  | Unknown                 | Unknown                 | Unknown                               |   | LB of Newham CIL Infrastructure Planning Report and East London Joint Waste  |  |         |
| 115. | <a href="#">North London Waste Plan</a>   | <a href="#">Waste</a>                        | <a href="#">Currently at draft stage. See Appendix 2 “Hackney Site and Areas” of the draft</a> | <a href="#">Medium term</a> | <a href="#">Unknown</a>                        | <a href="#">Unknown</a> | <a href="#">Unknown</a> | <a href="#">North London Boroughs</a> | <a href="#">North London Waste Plan</a> | <a href="#">North London Waste Plan (<a href="http://www.nlwp.net">http://www.nlwp.net</a>)</a>  | <a href="#">Currently identified sites are</a> |         |

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|      | Infrastructure Project   | Type of project | Status  | Phasing                 | Cost (£M) | Committed funding (£M) | Funding gap | Funding / source arrangements  | Delivery / other responsible agencies   | Information Source   | Local plan sub area and / or site allocation | Borough |
|------|--|-----------------|---|-------------------------|-----------|------------------------|-------------|--------------------------------|---|--|--|---------|
|      |  |                 | <a href="http://www.nlwp.net/consultation/1-DraftPlanDocuments.html">plan: http://www.nlwp.net/consultation/1-DraftPlanDocuments.html</a> |                         |           |                        |             |                                |   |  | outside the LLDC area.                       |         |
| 116. | Hackney Wick and Hackney Marshes Flood alleviation and habitat enhancement | Flooding        | To be confirmed   | Med / Long term         | £7-11M    | Yes                    | £7-11M      | Multi-agency and cross borough | LB of Hackney, Environment Agency, LB of Tower Hamlets, Canals and Rivers Trust | Consultation with Environment Agency and Hackney Level 2 Strategic Flood Risk Assessment |  |         |
| 117. | Strategic flood mitigation options   | Flooding        | To be confirmed   | Short / Med term        | £800–10M  | No                     | £800–10M    | Multi-agency                   | LB of Hackney, LB of Tower Hamlets, Environment Agency                          | Hackney Wick AAP   |  |         |
| 118. | Surface water flooding mitigation  | Flooding        | To be confirmed   | Short / Med / Long term | Unknown   | No                     | Yes         | Defra, S106 /                  | LB of Hackney, Environment Agency   | Hackney Wick AAP   |  |         |

| Status Key |                                    |
|------------|------------------------------------|
|            | Being implemented                  |
|            | Has funding or planning permission |
|            | No planning permission, no funding |
|            | No longer proposed / necessary     |
|            | To be confirmed                    |