

**Greater London Authority, London Borough of Tower Hamlets and
Transport for London**

**Draft Isle of Dogs and South Poplar Development Infrastructure
Funding Study
Final report**

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1 INTRODUCTION

- 1.1 This report is the Isle of Dogs and South Poplar Development Infrastructure Funding Study (DIFS). It was written by Peter Brett Associates LLP (PBA) with Cushman & Wakefield (C&W) and Gardiner & Theobald (G&T) for the Greater London Authority (GLA), London Borough of Tower Hamlets (LBTH) and Transport for London (TfL).

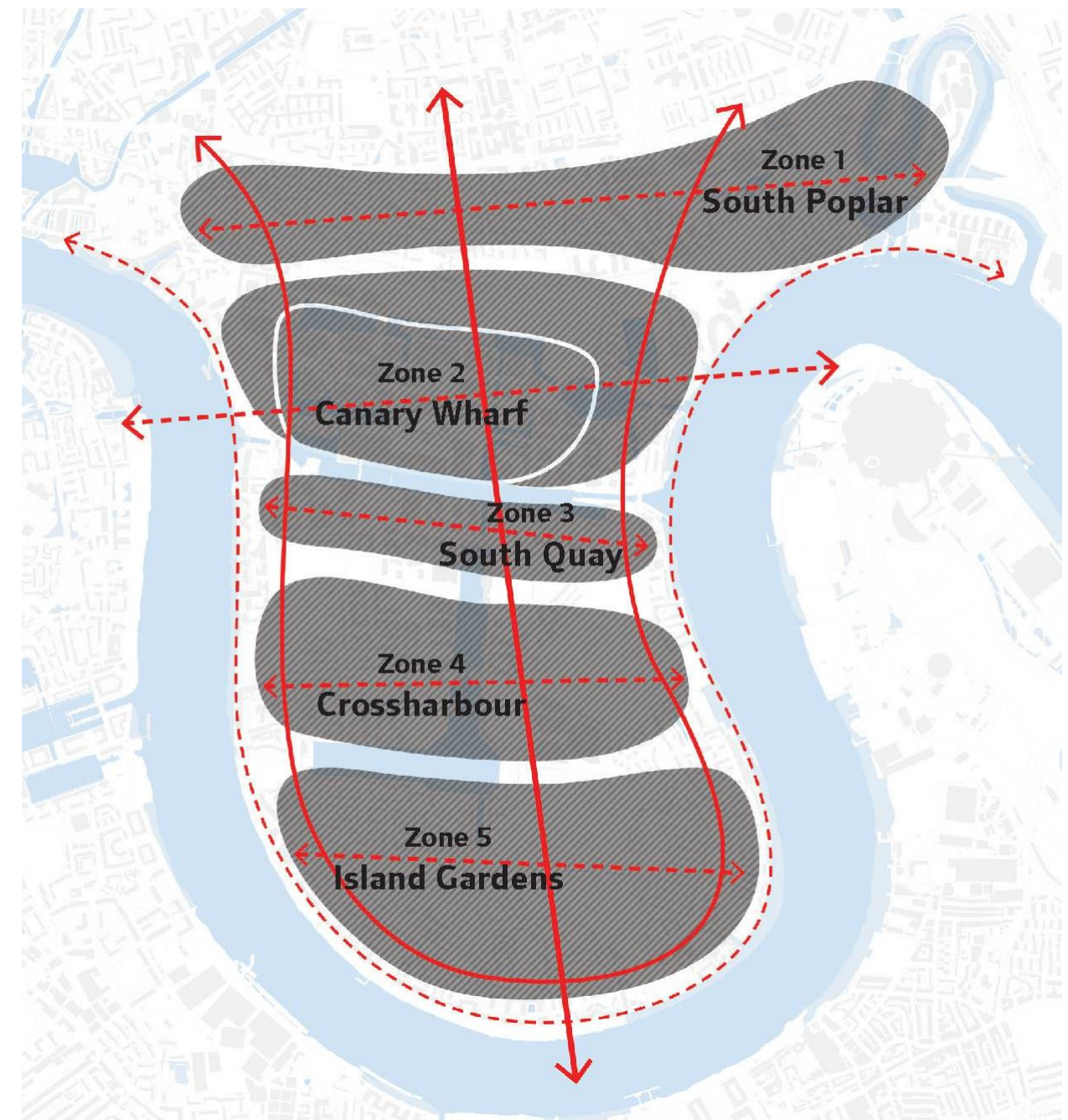
Our objectives

- 1.2 Our broad objectives are to understand the infrastructure needed to support growth in the Isle of Dogs and South Poplar study area. Our DIFS objectives required us to explain:
- The infrastructure requirements for prospective growth with planning permission which is as yet unbuilt;
 - The infrastructure requirements for prospective growth which may come forward but is at present without planning permission;
 - When and where the demand for infrastructure arises;
 - How much those infrastructure requirements may cost; and
 - How those infrastructure requirements might be paid for.
- 1.3 The DIFS will be used to inform the development of an Opportunity Area Planning Framework (OAPF) and the emerging LBTH Local Plan as well the draft Neighbourhood Plan. The outcomes of the DIFS and the model created will be used to ensure that whatever the level of future development within the study area is sustainable and well-supported.

Geographical scope

- 1.4 This study covers the area known as Isle of Dogs and South Poplar (IoDSP) Opportunity Area (OA). For the purposes of this study it has been divided into five key zones as set out in Figure 1.1. These are
- Zone 1: South Poplar
 - Zone 2: Canary Wharf
 - Zone 3: South Quay
 - Zone 4: Crossharbour
 - Zone 5: Island Gardens
- 1.5 The infrastructure required to support growth for Isle of Dogs and South Poplar OA may take place both within the boundary of those zones and outside the boundary.

Figure 1.1 Isle of Dogs and South Poplar development zones



Source: GLA

Date of research

- 1.6 The bulk of our primary research was carried out in Q1 2017. This report reflects the position at that point in time. As often is the case with projects of this scale, views on the requirements, costs and funding of infrastructure needed for development are likely to be modified as more information becomes available.

PART A – POTENTIAL GROWTH

In this part of the report, we set out growth potential for the Isle of Dogs and South Poplar OA, and the growth scenarios we adopted as our starting point from which to understand infrastructure requirements.

2 HOW MUCH GROWTH AND WHEN?

Introduction

- 2.1 The amount of growth, and its timing, has a fundamental effect on the level of infrastructure support needed. In this section, we explain the level of development that was assessed as our starting point for this DIFS.

The context for growth: the Isle of Dogs and South Poplar today

- 2.2 The OA covers 390 hectares in east London, and is bounded by the River Thames in the south and East India Dock Road in the north. There is considerable pressure for growth in the area.
- 2.3 The heart of the OA is one of the major business districts in London – Canary Wharf – which is home to a number of high profile international companies. Most of the office and retail space is enclosed within this area.
- 2.4 The land use either side of Canary Wharf is different. South Poplar, a predominantly residential area, covers the northern-most section of the OA. It is segregated from Canary Wharf by the A1261 (Limehouse Link and Aspen Way), a major highway connecting east London.
- 2.5 To the south of Canary Wharf, and bounded by the River Thames, are the areas of South Quay, Crossharbour and Island Garden. There has been high development pressure within the South Quay area, with a number of developments permitted recently, while future proposals are likely to come forward for Crossharbour. This area is dissected by a number of disused docks, which have been retained as a local amenity. Bridges constructed over the docks provide connectivity through the island, but in some areas the docks provide a barrier to pedestrian and cycle movement.
- 2.6 Despite some pedestrian and cycle severance, the OA is well connected by public transport (although PTALs are low in parts of the area). The DLR and Jubilee line both serve the area, and a Crossrail (Elizabeth Line) station is due to open in December 2018¹. More improvements to the public transport network are needed; in the peak times, there is congestion on the existing public transport network, and the quality of links could be improved.

What is the potential for growth, and when might it happen?

The London Plan identifies a broad development quantum, but this number has already been exceeded

- 2.7 *A City for All Londoners* sets out the Mayor's plan to focus more development in London's town centres and to intensify development around well-connected transport nodes in the city. We note that housing plans for the area have already grown, increasing from 10,000 homes in the earlier iterations of the London Plan², to the GLA work which suggest that a target of 30,000 homes could be provided.³

Three development scenarios have been developed

- 2.8 We have used outline development trajectories developed through discussions with the LBTH and GLA. The trajectories have been developed using a number of key growth assumptions at potential development sites across the OA. The trajectory may change throughout development of the OAPF and through further discussions with developers, landowners and local communities. Clearly, growth cannot take place without an approved planning application.
- 2.9 The development trajectory runs to 2041/2; the main differences in the scenarios relates to: the maximum growth scenario assumes a greater level of development in the period 2031/2 and 2041/2; the maximum and high growth scenarios assume that sites will come forward at higher density than the low growth scenario. In respect of residential development, the low growth scenario aligns with LBTH's Strategic Housing Land Availability Assessment (SHLAA).

- **Low growth scenario (all net additional):** 32,000 homes, 1,450,000 sq m GIA office and 64,000 sq m GIA of other/retail
- **High growth scenario (all net additional):** 37,000 homes, 1,450,000 sq m GIA office and 64,000 sq m GIA of other/retail
- **Maximum growth scenario (all net additional):** 49,000 homes, 1,450,000 sq m gross internal area (GIA) office and 64,000 sq m GIA of other/retail

- 2.10 The zones over which this growth has been tested are shown on Figure 1.1. The commercial floorspace is consistent across all scenarios.
- 2.11 We have presented year-on-year charts which set out this growth in Appendix C .
- 2.12 All residential units and commercial floorspace/ jobs referred to in this report are net additional, unless otherwise mentioned. Further explanation is provided in Appendix B below

¹ <http://www.crossrail.co.uk/route/stations/canary-wharf/>

² See London Plan Full Review Annex One: Opportunity and Intensification Areas <https://www.london.gov.uk/what-we-do/planning/london-plan/current-london-plan/london-plan-annexes/annex-one-opportunity-and>

³ See map at <https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/opportunity-areas/opportunity-areas-map-0> . Hovering over IoDSP suggests 30,000 home target.

We assess infrastructure requirements using net additional growth

- 2.13 Our broad objective in this study is to understand the infrastructure required to deliver a sustainable level of growth on the Isle of Dogs and South Poplar. Different growth scenarios are therefore used as a basis to calculate infrastructure demand and funding.
- 2.14 We have a choice to make about whether to use the gross development number as a basis for infrastructure calculations, or the net development number (which is the net additional development once demolitions have been deducted).
- 2.15 The area is by no means a blank slate, and a significant amount of infrastructure already exists to serve existing employment and residential development. If we calculated infrastructure required by gross development, we would be effectively ignoring the existence of this infrastructure, and would arrive at an artificially high requirement for new infrastructure.
- 2.16 We have therefore calculated infrastructure requirements on the net additional development figure for utilities and social infrastructure. Transport infrastructure uses TfL model outputs as a basis.

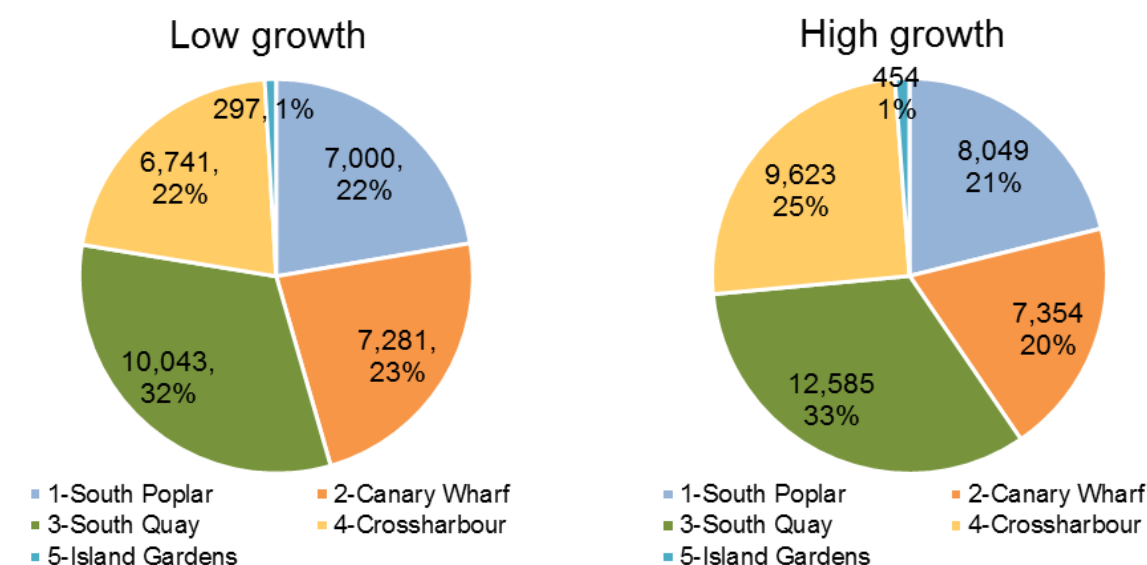
We assess infrastructure requirements using approved growth and the potential growth on sites currently without planning permission

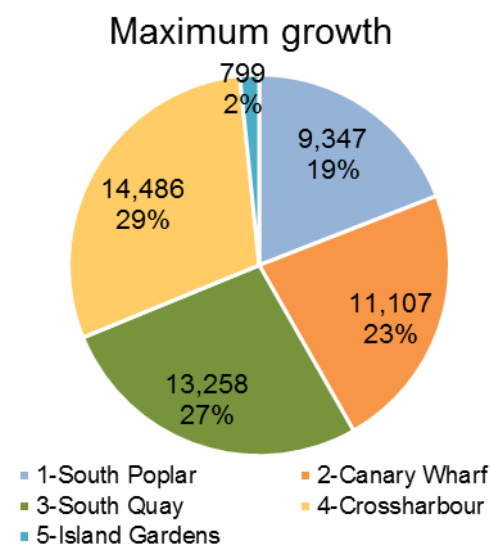
- 2.17 Infrastructure studies elsewhere have assumed that if jobs and homes already have permission, then sufficient infrastructure to cope with the demand must already be in place - so they are excluded from the study. We are instructed that this DIFS should take a different approach, because of local circumstances around the deficit in infrastructure provision arising from development which already has planning permission, but which has not yet been built.
- 2.18 Growth assessed in the DIFS falls under the following categories:
- **Development with planning permission:** sites where permission has been granted, and are due to come forwards within the study period. If there are sites which have obtained planning permission, but LBTH or GLA understand might not come forwards in the permitted form (for example, pre-application discussions for a revised scheme are underway), then these are excluded from this category.
 - **Potential growth:** sites where planning permission has not been granted or where permission has been granted but the site is not anticipated to come forward in its permitted form. The growth numbers for sites within this category represent broad estimates of growth with a view of the potential quantum of development. As growth is projected up to 2041/42 the exact form of development at each site is not known at this stage.
- 2.19 In order to assist with analysis, it is our objective to separately identify the cost of infrastructure deficits arising from unbuilt growth with planning permission, and the cost of infrastructure arising from planned growth without planning permission. These two numbers can be combined to provide an overall gross infrastructure cost for growth in the area.
- 2.20 We need to be careful here to avoid double-counting infrastructure requirements, as it could result in arriving at an artificially high infrastructure requirement for growth in the area. To overcome this, LBTH provided us with information on committed infrastructure. More details are provided in Chapter 3.

The potential distribution of growth across the study area

- 2.21 Under the scenarios we have tested, the growth is distributed unevenly across the study area. While this distribution (and scale) of residential growth varies across the scenarios, the scale and distribution of commercial is the same for each.
- 2.22 The figure below show the residential growth as follows across the study area:
- South Poplar – this zone accounts for, depending on scenario, between 19% to 22% of tested residential growth. This zone also includes a number of large estate renewal projects.
 - Canary Wharf – dependent on the scenario, this zone accounts for between 20-23% of tested residential growth.
 - South Quay - under the low and high growth scenario, this zone could deliver the largest proportion of tested growth (32% or 33%). This compares to 27% in the maximum growth scenario. However, the total quantum of development tested in this zone for the maximum growth scenario is greater than the high.
 - Crossharbour – under the maximum growth scenario, this zone could deliver the largest proportion of residential development (30%). The high and low growth scenarios envisage a lower proportion of the growth (25% and 22% respectively).
 - Island Gardens – this accounts for less than 2% of the growth tested in our scenarios. This reflects the lower density character of this part of the study area and the reduced availability of development sites.

Figure 2.1 Potential distribution of residential growth across the study area (net additional units)



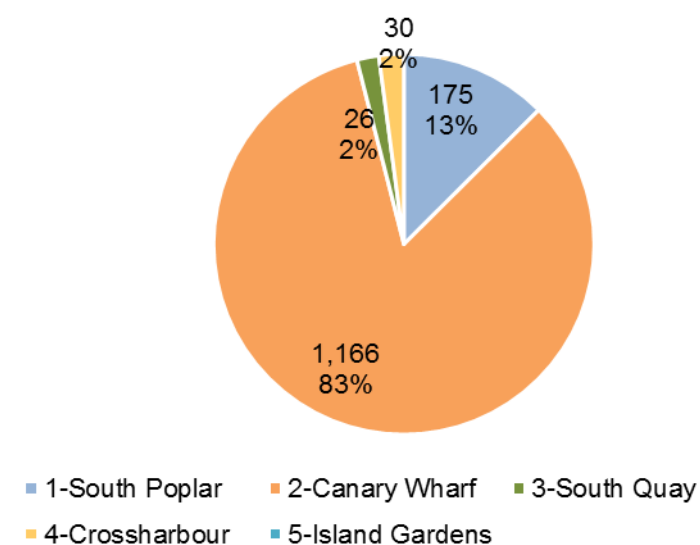


Source: GLA, LBTH, PBA

2.23 In relation to commercial space (office, retail and other commercial uses), the figure below shows the following:

- South Poplar accounts for 13% of the total commercial growth tested. However, 86% of the growth in that zone would be delivered through the development enabled by the decking over of Aspen Way.
- Canary Wharf accounts for the vast majority of the tested commercial growth, with some form of commercial space anticipated to come forward on all but one of the development sites within the zone. This is in keeping with the current role and function of the zone as the main focus of office development in the Isle of Dogs and its designation as a metropolitan centre.
- South Quay and Crossharbour – the scale of commercial growth here is limited, with only a handful of sites focused on the DLR network tested as delivering development across the period. Together the zones account for 4% of the commercial growth tested.
- Island Gardens – no commercial growth has been tested in this location.

Figure 2.2 Potential distribution of commercial floorspace growth across the study area (000 sq m, GIA)



2.24 We also tested a higher growth employment sensitivity which is provided at Appendix F .

Predicting the timing of growth for residential development

2.25 This study needed a stable, replicable way of generating a year-on-year growth trajectory, so that we were able to calculate infrastructure demands arising from growth. Different sites can be expected to start at different points in time, and develop at different rates. For the purpose of this study, GLA and LBTH have used a series of rules to develop a 'potential' development build out from 2017/18 to 2041/42. The same rules have been applied to all the growth scenarios in order to generate a trajectory.

2.26 Given the high number of potential sites coming forwards within the OA, each development has been separated into 'strategic' sites, 'non-strategic' sites and 'estate regeneration', with each one being dealt with differently. Strategic sites are defined as those with 500 or more residential units, and 'non-strategic' sites are those with potential for less than 500 units.

2.27 We have assumed the following:

- **Strategic sites** have a longer lead in time and higher annual build out rates. If the development does not currently have permission, it is assumed that units will start to be delivered from 2026/27 onwards. If a site already has permission, we assume that delivery will start in 2017/18. The build-out rate for strategic sites is 500 dwellings per annum (dpa). This is based on build-out rates assumed for major projects in LBTH SHLAA.
- **Non-strategic sites** have a shorter lead-in time and lower annual build out rates. If the development does not currently have permission, it is assumed that units will start to be delivered from 2022/23 onwards. If a site already has permission delivery, we assume that it will start in 2017/18. The build out rates for these sites is 150 dpa. This is based on build-out rates adopted in the GLA's *Barriers to Housing Delivery* document (July 2014).
- **Estate development opportunities** will have the longest lead-in time. To reflect the complexity of site acquisition, project planning and decanting, units will start to be delivered

from 2031/32 onwards, and the build rate calculated as the annual delivery rate between 2031/32-41/42. It is acknowledged that in the low growth scenario, this development may come forward as infill rather than full estate regeneration but we have not made substantial adjustment to the trajectory because the scale of growth on these sites is more limited.

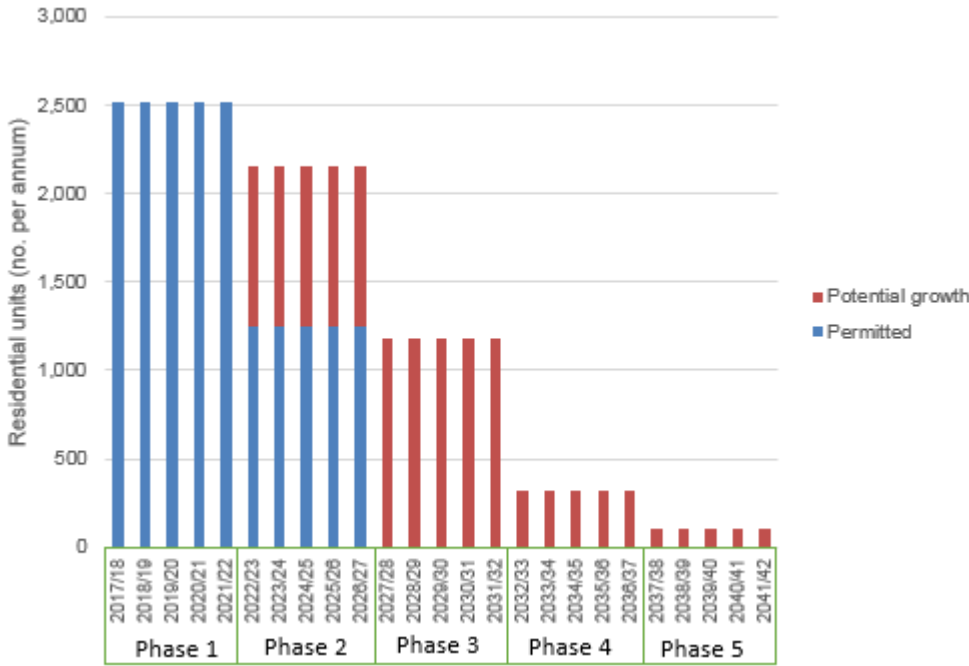
- 2.28 Through local knowledge and discussions with landowners and developers, details of some exceptions to the standard assumptions are provided in Appendix A.
- 2.29 To make sure that the total build-out rate per annum for the OA is within a reasonable range, the per annum rate has been averaged for each five-year delivery period. This is in order to make a more realistic ‘blended’ delivery profile across the area and avoid the creation of apparent peaks and troughs in output. We recognise that real world build-out will not be so uniform, but any other approach would suggest a spurious level of accuracy in our assumptions.
- 2.30 A summary of residential growth by scenario is provided in Table 2.1 and Figure 2.3-Figure 2.6, and a zone-by-zone breakdown in Appendix C (maximum growth scenario only).

Table 2.1 Summary of net additional residential development growth for the growth scenarios

Scenario	Status	2017/18 to 2021/22	2022/23 to 2026/27	2027/28 to 2031/32	2032/33 to 2036/7	2037/38 to 2041/42	TOTAL
Low growth	With permission	12,695	6,876	-	-	-	19,571
	Potential growth	-	4,224	5,564	1,531	472	11,791
High growth	With permission	12,695	6,876	-	-	-	19,571
	Potential growth	-	4,396	7,300	3,154	2,128	16,978
Maximum growth	With permission	12,695	6,876	-	-	-	19,571
	Potential growth	-	6,448	10,220	7,241	5,517	29,426

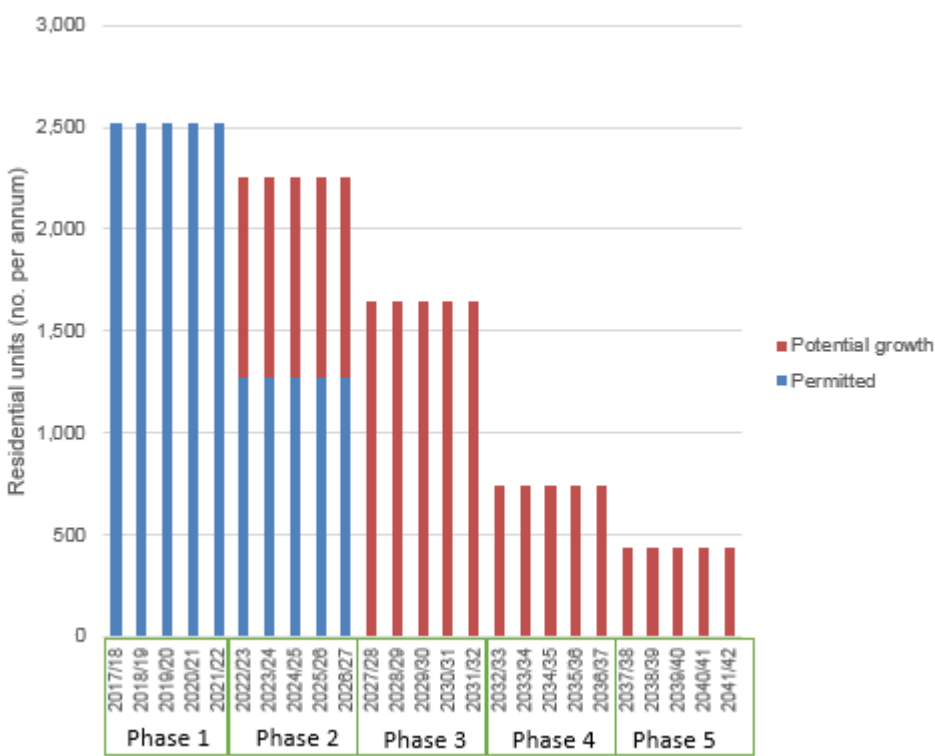
Source: GLA/LBTH/PBA

Figure 2.3 Summary of residential development growth (low growth scenario net additional)



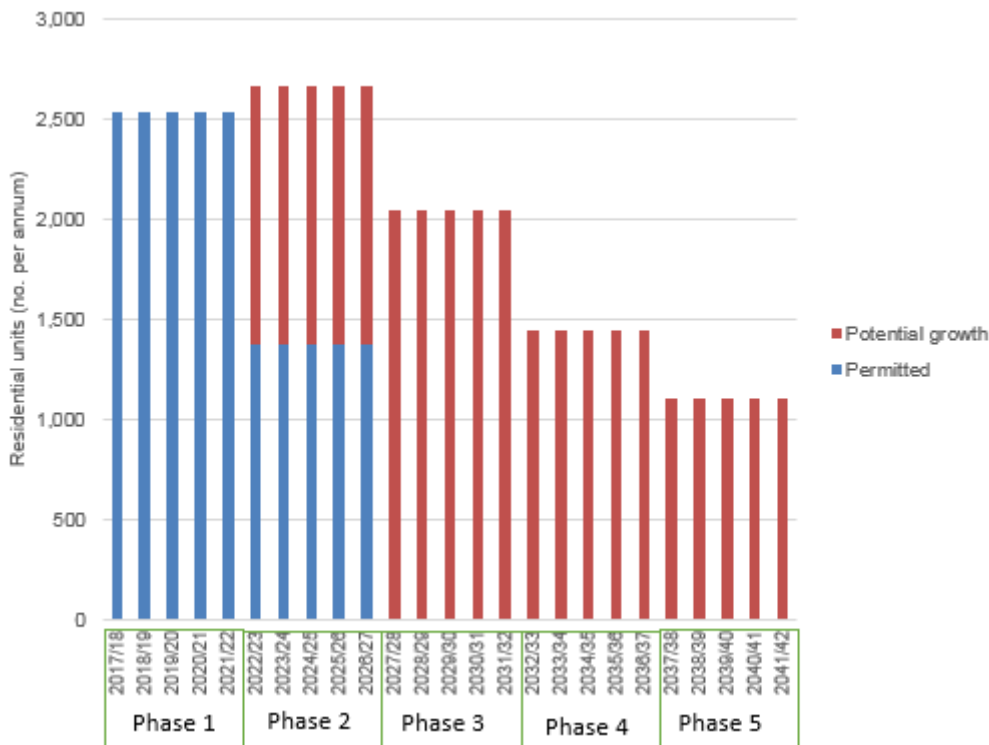
Source: GLA/LBTH/PBA. Individual zone build trajectories can be found as Appendix C

Figure 2.4 Summary of residential development growth (high growth scenario net additional)



Source: GLA/LBTH/PBA. Individual zone build trajectories can be found as Appendix C

Figure 2.5 Summary of residential development growth (maximum growth scenario net additional)



Source: GLA/LBTH/PBA. Individual zone build trajectories can be found as Appendix C

Setting out the timing of growth for commercial development

- 2.31 A different growth trajectory has been adopted for office, and for retail /other commercial. These trajectories have been developed in advance of any detailed market studies. Such a study is outside our scope.
- 2.32 Through consultation with agents, it is understood that while the scale of office completions within the OA varies considerably year-on-year, the five-year average to 2015 is 31,600 sq m (NIA) per annum. The equivalent 10-year average is slightly lower at 28,800 sq m per annum⁴.
- 2.33 Wider economic factors mean that future completions may not follow this pattern. There is a level of uncertainty following the decision for the UK to leave the European Union, and it is not clear what the impact will be on office occupier decisions (particularly in the financial sector which form a high proportion of the Docklands office market) and therefore office developments in London, and more specifically in the OA. At least initially, there may be a reduced level of build out.
- The sites with planning permission make up approximately a third of the overall office space development in the OA. We have assumed that these sites are built out across 10 years starting in 2017/2018.
 - It is likely that office growth for sites without planning permission will be challenging to deliver in the short term in addition to delivering the pipeline of permitted office space. Therefore, we

⁴ Completions are referred to here as it is a much better measure of future delivery than using other figures (such as office take-up), as it represents only new office space.

have assumed that sites without planning permission only start to be delivered once the sites with planning permission have been completed.

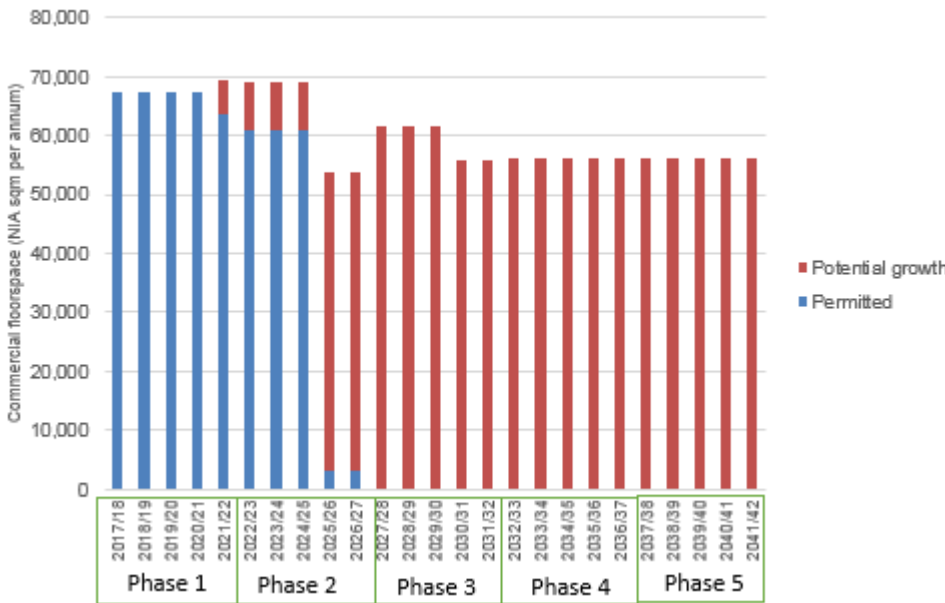
- 2.34 Without any more information on the likely build-out rate for office space, it has been assumed that sites with planning permission and without planning permission will have a constant rate of delivery.
- 2.35 The quantum of retail and other commercial growth, in the context of the overall level of growth in the OA, is limited. It is therefore assumed that the delivery of that element will be linked to residential growth, and so the delivery has been pro rata'd using the zone-by-zone residential development build-out rate.

Table 2.2 Summary of commercial development growth (GIA sq m net additional)

Planning status	2017/18 to 2021/22	2022/23 to 2026/27	2027/28 to 2031/32	2032/33 to 2036/7	2037/38 to 2041/42	Total
With permission	333,193	189,105	-	-	-	522,298
Potential growth	5,852	125,710	296,681	281,483	281,074	990,800

Source: GLA/LBTH/PBA

Figure 2.6 Summary of commercial development growth (net additional)



Source: GLA/PBA

PART B - OUR APPROACH TO INFRASTRUCTURE REQUIREMENTS, COSTS AND FUNDING

It is important to adopt a consistent approach to the way that infrastructure requirements, costs and funding are assessed. In this part of the report we set out our approach.

3 APPROACH TO ASSESSING INFRASTRUCTURE REQUIREMENTS

Introduction

- 3.1 In this part of the report we explain how we have identified the types of infrastructure that are required to support potential growth in the Isle of Dogs and South Poplar (IoDSP).

Types of infrastructure

We take account of both primary and secondary infrastructure requirements, but do so in different ways

- 3.2 In this study, we define primary and secondary infrastructure as follows.
- Primary infrastructure is infrastructure required to accompany development to allow new households and jobs to function within a wider community. This might include transport, social and utilities infrastructure. This infrastructure will be largely used by the community living and working in the development, but others would not be excluded from using these facilities.
 - Secondary infrastructure is infrastructure intended to create accessible, serviced and developable sites. Developers build these costs into their assessment of sites. Secondary infrastructure will typically include internal access roads within sites, and connections to the mains for drainage, sewage, gas, electricity and telecoms. Developers also generally pay for small-scale open and play spaces together with on site and adjacent landscaping, and so this falls within the definition.
- 3.3 We deal with both primary and secondary infrastructure in this study, but we do so in different ways. Primary infrastructure requirements are calculated directly, but frequently secondary infrastructure requirements are not separately itemised. A full itemisation of all secondary infrastructure costs and requirements as part of this assessment would be a) redundant and b) unacceptably complicated. However, these costs have not been ignored.
- We have built in generic costs of secondary infrastructure into our assessment of build cost externals, meaning that they are taken account of through the viability testing exercise.
 - We have undertaken specific costing exercises where secondary infrastructure costs exceed the levels which would be considered to be normally within a build cost budget.
- 3.4 Given this focus, the following categories of infrastructure are excluded from this study.
- Nationally provided infrastructure is outside our scope (e.g. courts, prisons).
 - Privately owned 'infrastructure' is outside our scope (e.g. petrol stations, pubs, post offices). Costs fall on the private sector, and so are excluded from this assessment.

- Care homes. These are excluded from infrastructure costs. Care homes are part of a quasi-private market in older peoples' residential care. Social care budgets pay for some places, whereas others are privately purchased.
- Adult social care. Mainstream budget allocations work on a per capita basis, so that a growing population will be broadly reflected in rising budgets.
- We have excluded some categories of health care from the study, as follows.
 - Acute health care (generally hospital) and community/cottage hospitals. We do not cover these types of provision in this report. Incremental change is more likely as the build-out is delivered. Note that in common with a number of state infrastructure providers, acute care provision has funding which adjusts for capitation, so funding should follow population growth.
 - Pharmacies and optometrists. The NHS does not financially support the *initial* provision or ongoing costs of pharmaceutical and optometric premises. This is a private sector function and is therefore excluded from our study.
 - Dental premises. Dentists are contracted by the NHS to provide an agreed level of units of dental activity. For this they receive an income. Running costs are charged against this income, making this service provision analogous to a private business.

Affordable housing is dealt with through its effects on potential developer contributions

- 3.5 In our view, affordable housing does not constitute infrastructure in its strict sense (although it has been included as infrastructure in some definitions and is a requirement negotiated through the planning process with associated costs paid for by developments themselves). It is therefore not treated as such in this study. However, affordable housing requirements must be understood as part of an infrastructure study, because the levels of affordable housing demanded have a profound impact on the viability of development, and thus on amounts of developer contribution available from each plot to fund infrastructure.
- 3.6 We take account of levels of affordable housing requirements through our assessment of viability and potential developer contributions. Our viability work is based on assumptions on policy-compliant levels of affordable housing to be required in the area. These levels have been agreed with LBTH and the GLA.

What infrastructure is required? Our approach

LBTH and TfL have provided an overview of infrastructure requirements

- 3.7 An infrastructure delivery plan⁵ covering the period to 2031 has been produced by LBTH setting out the potential future infrastructure requirements to deliver growth across the borough. LBTH have used the work contained within this plan, along with any other known information on infrastructure, to identify infrastructure required to support growth in the OA. Some of these

⁵ London Borough of Tower Hamlets (2016) *Infrastructure Delivery Plan: Consultation version*, November 2016

projects are linked to specific sites with planning permission, but was calculated based on known projects to help inform the process. It was not an assessment of needs coming from growth.

- 3.8 A transport strategy is being developed by TfL to understand and address the transport challenges for the area, as well as support growth through the delivery of a multi-modal package of infrastructure and measures. This work has been used as an input to this DIFs.

The main service providers have been consulted

- 3.9 To understand the levels of infrastructure arising from growth, key service providers were consulted where possible within the constraints of the study. In other instances, we have used industry standards to understand requirements.

We have sought an efficient approach to infrastructure provision

- 3.10 In this assessment, we have tried to provide a pragmatic approach that balances deliverability with providing sufficient infrastructure to ensure the growth is properly catered for. We have tried to calibrate our method to help us gauge a realistic level of infrastructure provision, in the following ways.
- Where possible, we have provided service providers with information showing the location and quantum of jobs and housing growth. We have invited them to explain what requirements they have, given this planned growth, and invited them to explain why this infrastructure is required. This process has built a realism and transparency into the approach.
 - Our rough rule of thumb is that the infrastructure requirements for growth in this assessment should be broadly in line with the levels of infrastructure enjoyed by typical residents and workers in the area.
 - We have attempted, where possible, to take account of service providers' existing spare capacity. We rely on service providers' expertise here. This has the effect of reducing infrastructure demands, and so their costs and funding requirements.

Service delivery is continually being reconfigured. Strategies change. This affects levels of infrastructure required to support new growth

- 3.11 Public services, and hence the infrastructure they demand for delivery, are in a constant state of flux. Policy or technology can change rapidly. Most service providers do not plan beyond three years, and so cannot by definition be expected to know their precise requirements in (say) 10 years' time.
- 3.12 Public finances are also uncertain. They may recover at some point, but we are currently unable to predict the extent to which this might take place, or when.
- 3.13 This means that public service infrastructure requirements as a result of growth are difficult to predict and are necessarily subject to a considerable margin of error.

We have not formally dealt with demographic changes, but have taken current demographic trends into account

- 3.14 There are two demographic issues which need to be borne in mind:
- The relationship between new housing stock and population
 - The demographic profile of the area, such as age profiles
- 3.15 We have used the latest GLA Population Yield Calculator⁶ to estimate population yield from new housing development. Where we have needed an estimate of population within specific age groups, we have used GLA's Population Yield SYA Tool.
- 3.16 Time and budget do not allow us to deal with any changes in these profiles and relationships in future. We have relied on service providers being broadly aware of issues in order to give us a reasonably accurate picture of the infrastructure implications of growth in the area.

What does infrastructure cost? Our approach

Understanding gross infrastructure costs for wider development

- 3.17 'Gross infrastructure costs' capture the total cost of all known items required to deliver development in and around Isle of Dogs and South Poplar. This is something of a catch-all category, and therefore includes items such as river crossings and highway connections to the wider network.

We quote infrastructure costs at current prices and exclude VAT

- 3.18 We quote capital costs. We have used service providers' and our team's estimates of infrastructure costs. Where we have costed infrastructure we have drawn on Gardiner & Theobald's in-house database, and taken account of the type and use of the asset. At times, we have also included costs provided by other parties to provide a strategic view.
- 3.19 The major costs quoted in this study were current prices at the time of the work (Q1 2017). No inflation is included in our cost calculations. This is because we do not know what the inflation rate will be in future, or exactly when items will be built. Costs will need to be revisited in future and this will be set out as part of the OAPF delivery and monitoring strategy. Funding sources will also be expected to rise with inflation, so that the overall effect of this choice is kept neutral.
- 3.20 We exclude VAT on the assumption that it is recoverable by the infrastructure funder/deliverer.

Some costs are provided by TfL and LBTH

- 3.21 We have taken into account any costings provided by:
- TfL for delivery of transport infrastructure already identified to deliver the growth within the Isle of Dogs and South Poplar.
 - LBTH for social infrastructure and local transport infrastructure already identified to support future growth.

⁶ Provided by GLA in January 2017]

We include an allowance for contingency

- 3.22 In providing information on costs it is important to make contingency allowances. These allowances cover unforeseen circumstances or errors in the size or amount of infrastructure required, ground conditions, weather delays or availability of labour. The level of contingency will depend on the complexity of the infrastructure item and how much information is available at this stage in the process. Where costed, 10% contingency has typically been added to infrastructure costs unless more information is available. This sum is considered reasonable.

We exclude optimism bias

- 3.23 Optimism bias is discussed in Green Book Supplementary Guidance⁷. Optimism bias is intended to correct for the systematic tendency of public sector projects to run over budget.
- 3.24 However, it is important to use Optimism Bias correctly. Optimism bias is principally used for assessing the 'value for money' of a project (i.e. do the economic benefits outweigh the economic costs?), but not its commercial viability. This view is supported in the recent DCLG appraisal guide, which states:
- 'Optimism bias should be used to inform decision makers about the risks of costs being higher and benefits being lower than forecast. It is therefore a useful concept in assessing the robustness of a project's overall value for money. All value for money metrics – the NPPV and BCR – should be calculated with OB included. However, in the financial case of a spending proposal, the OB adjustment should be excluded and instead a reasonable level of contingency should be made (which will be linked to the final level of OB applied in the appraisal at Final Business Case stage).'*⁸
- 3.25 In this respect, 'assessing the robustness of a project's overall value for money' is the economic case of a Business Case and should include optimism bias.
- 3.26 The 'financial case of a spending proposal' is obviously the financial case of a Business Case, which in part covers viability, and should not include optimism bias (subject to appropriate contingency).
- 3.27 Our purpose in this project is to assess commercial viability. Our costings therefore do not include Optimism Bias, but do include contingency.

Treatment of land costs

- 3.28 Our objective is to make the study as accurate as possible, and so we take a nuanced approach to the way that land costs are treated.
- 3.29 In some instances, land costs are excluded. This is in instances when we believe that the inclusion of land costs for infrastructure is likely to make the study less (not more) accurate, for the following reasons.

- When land is needed, its price will vary widely depending on development location and planned use. We cannot be certain what its value at that time and anticipated use is. Land for infrastructure can also sometimes be provided at nil cost, for a variety of reasons.
- In some instances, land is not needed, because infrastructure will be located on land already owned by the organisation or agency involved.

- 3.30 Examples of when land costs are excluded involve primary school provision and community centres and library/ideas store provision (because we expect that these facilities are likely to be integrated into wider residential and other developments, and so will form part of bigger development projects in which land is provided as part of an overall development package). A good example of the physical form of this type of primary school provision can be found at Netley Primary School in Camden.
- 3.31 In other instances, we have included land costs. This is in instances when their inclusion will make the study more accurate. We can be quite sure, for example, that secondary schools will need a specific site purchase: they are of a sufficient size that it will be very hard to integrate this provision into other developments. There will also be land costs for the construction of the deck structure across Aspen Way.
- 3.32 We have made clear when land costs have been included in the detailed costing tables. If costs are not quoted, then they have not been included.

How can infrastructure be funded? Our approach

- 3.33 Our aim in the sections on funding in this report is to show the potential funding sources available for the infrastructure at the area. We explain our approach below.

Where possible, we assume that mainstream funding is the first funding to be used

- 3.34 It is the Government's intention to use S106 and CIL to fund infrastructure after sources of mainstream support have been identified. We therefore sought mainstream funding for infrastructure in the first instance: one example of this is the funding already agreed through the TfL business plan.

Funding seeking developer contributions (S106/S278/CIL funding)

- 3.35 Here, we are identifying funding *sought*. We use the word carefully. Funding listed here is not necessarily confirmed.
- 3.36 Our general approach has been as follows. We assume that projects may seek developer contribution funding, either of S106/S278 or CIL. This may not be a safe assumption: CIL may not be allocated to the project, or no S106 deal might be signed. Different types of project may be more suitable for either CIL or S106/S278 funding, depending on their nature.

⁷ HM Treasury (2013) Green Book Supplementary Guidance: Optimism Bias
<https://www.gov.uk/government/publications/green-book-supplementary-guidance-optimism-bias>

⁸ DCLG Appraisal Guide

- CIL: CIL is in place for LBTH. Both a Mayoral and Borough CIL is charged. (We assume that Mayoral CIL is spent on other infrastructure outside this list, and so is not assumed to be a funding source for the infrastructure identified in this study – although this assumption could be reviewed in future). Borough CIL is able to cover projects across LBTH that are strategic in nature, and serve more than one development. The Regulation 123 list sets out the infrastructure that LBTH intends for CIL to wholly or partially fund. The legal purpose of the list is to stop S106/CIL double charging for the same infrastructure. It does not positively commit an authority to spending CIL on a particular infrastructure item on the list. This means that the list does not bind an authority to spending CIL on the things it contains, but it does prevent the authority from seeking 106 contributions for them. It is best considered as being a list of things that the charging authority will not spend S106 receipts on. So, if an infrastructure item is on the R123 list, the charging authority is in effect saying that ‘we will definitely not ask for planning obligations on these things’. CIL contributions can either be in monetary terms or works-in-kind.
- S106: projects being funded through this route must be a) directly related to proposed development, b) reasonable in scale and kind and c) necessary to make the development acceptable in planning terms.

- 3.37 In parallel to this study, LBTH are undertaking a consultation exercise to identify potential infrastructure projects for the CIL pot to be spent on. Due to the timescales, the consultation outcomes will not form part of this DIFS.
- 3.38 For the purpose of this project, we assume that CIL collected by developments within the OA will be used to pay for infrastructure in the OA. This becomes important later in the project, when we calculate the funding gap. Any CIL or S106 receipts which are unattached to individual projects will be set against the total cost of infrastructure, to calculate the size of the funding gap.

Instances when S106 or CIL funding has been allocated to specified projects

- 3.39 In some instances, funding has already been allocated, either because a signed S106 agreement exists, or because a decision has been made to spend CIL or use CIL works-in-kind. LBTH have identified those instances. Our spreadsheet looks to allocate these specified payments to a specific infrastructure item, but this is not always the case. Our capturing this information here does not commit LBTH to spending the contributions in this way, but is a necessary assumption for the purpose of this study.

Other funding assumed

- 3.40 This line in our spreadsheet reflects the fact that some infrastructure costs might be picked up by other sources. For example, in some cases we make the assumption that utility companies may be willing to pay for some infrastructure on the basis that costs can be recovered from user charges.

Important caveats

- 3.41 When we make the assumption that a project might seek S106 funding, it is important to understand that we have not applied the S106 ‘tests’ listed above, or cross-checked the R123 list.

We have also not checked whether this assumption would break limits on pooling S106 contributions.

- 3.42 Through this work we cannot advise on the nature of individual S106 or CIL deals. It is important to understand that at this stage it is not possible to be certain of these categorisations. There will undoubtedly be debate, and this report cannot provide a definitive answer. As a consequence, we cannot make definitive statements of how available funding should be sought from individual landowners. Much will depend on individual circumstances and the individual development deal arrived at.
- 3.43 All categories of developer cost above are taken into account when we undertake viability testing.

When is infrastructure required? Our approach

We have talked to providers and used judgement to understand when infrastructure might be required

- 3.44 We have talked to providers and used judgement to understand when infrastructure might be required to support different sites and phases of development. We caution that this is not always an exact science. Very much depends on economic cycles, funding availability, technological change, the levels of congestion considered tolerable and so on.
- 3.45 The development trajectory we have developed (discussed in 2.25 onwards) is an important input here, because infrastructure sequencing is intended to respond to levels of infrastructure demand created by growth.

What are the priorities? Our approach

- 3.46 It is our objective here to prioritise which infrastructure projects are most important in allowing planned growth at the area to take place in a well-planned way.
- 3.47 Ultimately, it will be necessary to prioritise both within theme areas (say, prioritising the most important transport projects) and also between theme areas (say, deciding to invest in community facilities, rather than transport). There is no definitive right answer here. While these final decisions rest with elected representatives and their officers, it is our role to assist the process of making these decisions. We therefore have categorised different infrastructure spending into the following levels of priority, in the expectation that subsequent work, outside our brief, will review the choices made.
- 3.48 How funding is actually deployed depends on the amount of money that there is available to pay for infrastructure. (Tight budgets would mean that only essential requirements were met; more funding might mean that the other projects were funded).
- 3.49 Please note that this prioritisation process does not intend to sequence infrastructure investments in time order. Sequencing is a separate exercise, and is informed by the growth trajectory adopted.

The prioritisation categories used

3.50 We are using the following categories for prioritisation. These categories are used in the detailed infrastructure cost and funding tables provided in Part C of this report.

- 1. Critical enabling. This category includes all infrastructure that is critical to facilitate a development. Without these works development cannot proceed.
- 2. Essential mitigation. This category includes all infrastructure that we believe is necessary to mitigate the impacts arising from the development. The usual examples of essential mitigation are projects which mitigate impacts from trips or population associated with a development, including school places, health requirements and public transport (service) projects.
- 3. High priority. This category includes all infrastructure that support wider strategic or site specific objectives which are set out in planning policy but would not necessarily prevent development from occurring, although that would need to be considered on a case by case basis.
- 4. Desirable. This defines all projects that are deemed to be of benefit but would not prevent, on balance, the development from occurring or from being acceptable if they were not taken forward.

Caveats attached

3.51 There are a number of important points which must be borne in mind when using this document.

- It is important to point out that we are dealing with infrastructure requirements at a high level. This study provides the basis to establish the fundamental infrastructure requirements to support further development at the Isle of Dogs and South Poplar. Once the principles have been established and there is certainty in delivery, a more detailed phase can be entered, with development partners and potential end users identified. At that stage, it will be possible to refine the concepts on which this report is based on and provide a more detailed plan that reflects their needs and the aspirations of the council. This report - and the spreadsheet analysis that accompanies it - is designed to be updated as more information comes in over time.
- Infrastructure providers reserve the right to update the information provided. As might be expected, there are some gaps in knowledge and understanding of what is needed and how it might be paid for. Estimates will need to be refined.
- The service providers are at different stages in their planning processes. In many cases further work is needed to identify specific infrastructure requirements.
- The estimates of infrastructure requirements, costs and funding provided here involve generalisation. It is not realistic to match resources, demand and location with the degree of precision necessary to reach perfectly reasoned conclusions on what infrastructure is required on any one given site or with any one service provider.
- This infrastructure assessment is not itself a policy document. Information included in the assessment does not override or amend the various agreed/adopted strategies, policies and commitments which local authorities and other infrastructure providers currently have in place.

- Our assessment of potential developer contributions from potential future development in the area does not purport to offer a valuation of any particular piece of land. They were prepared with the objective of estimating potential overall levels of contributions that could be secured from development to help fund infrastructure. They are not suited to any other purpose.
- Although this work can be used as a high level guide, developers and Local Planning Authorities will not be able to solely rely on this work to negotiate individual Section 106 agreements. Our analysis is not at the level of accuracy that allows this function to be performed.
- Further work after this study has closed will be necessary to refine infrastructure priorities.
- It will be important to allow sufficient flexibility around funding. In the case of S106, for example, there may be changes to the way that these policies are used to pay for different infrastructure items that differ from this report.
- This report may make assumptions about how projects are funded. For example, it may assume that some projects are included as seeking S106. However, as projects proceed through the planning process, these projects may be sought as part of typical externals budgets, and thus receive no funding or offsetting allowance in viability calculations for S106 or affordable housing. This is an area-wide report which does not attempt to determine these matters, which will require site-by-site negotiation. We have not referred to pooling limits or cross-checked Regulation 123 lists.

PART C – INFRASTRUCTURE COSTS AND FUNDING - DETAILED TABLES

This part of the report sets out the detail of our findings.

We start by providing a detailed potential growth trajectory.

We then look at utilities, transport and social infrastructure projects.

The sheets do not capture numerical data only. They contain important analysis under each theme: we set out what infrastructure is needed, its costs, how it can be paid for. Where relevant, we advise where the infrastructure might be located. We note high level issues and delivery recommendations.

We provide the relevant information for each of the growth scenarios.

4 INFRASTRUCTURE COSTS AND FUNDING

Introduction

- 4.1 This section sets out the costs and funding assumptions the three main infrastructure categories: utilities, transport and social infrastructure. Within each of these categories, some infrastructure themes are identified and for each theme we set out what infrastructure is needed, how the infrastructure can be paid for and any notes, issues and recommendations. We include the headline cost at the outset of each main category, then set out detailed costs and, where relevant, where the infrastructure might be located.
- 4.2 For each project, the gross costs are attributed across the five zones within the study area; the attribution will depend on the project and where the demand or need is generated. In some instances, costs are attributed outside the study area where the projects are deemed to be meeting needs beyond those generated by the development scenarios. We then consider the potential funding streams for each project i.e. how the project might be paid for. Both costs and funding are spread across the study period based on when the infrastructure is needed; this informs our cashflow analysis in forthcoming sections.

Utilities

- 4.3 This section covers the main utilities themes of electricity, gas, potable water, sewerage and drainage, waste and CHP/district heating. We identified headline utilities costs in the order of £54m.

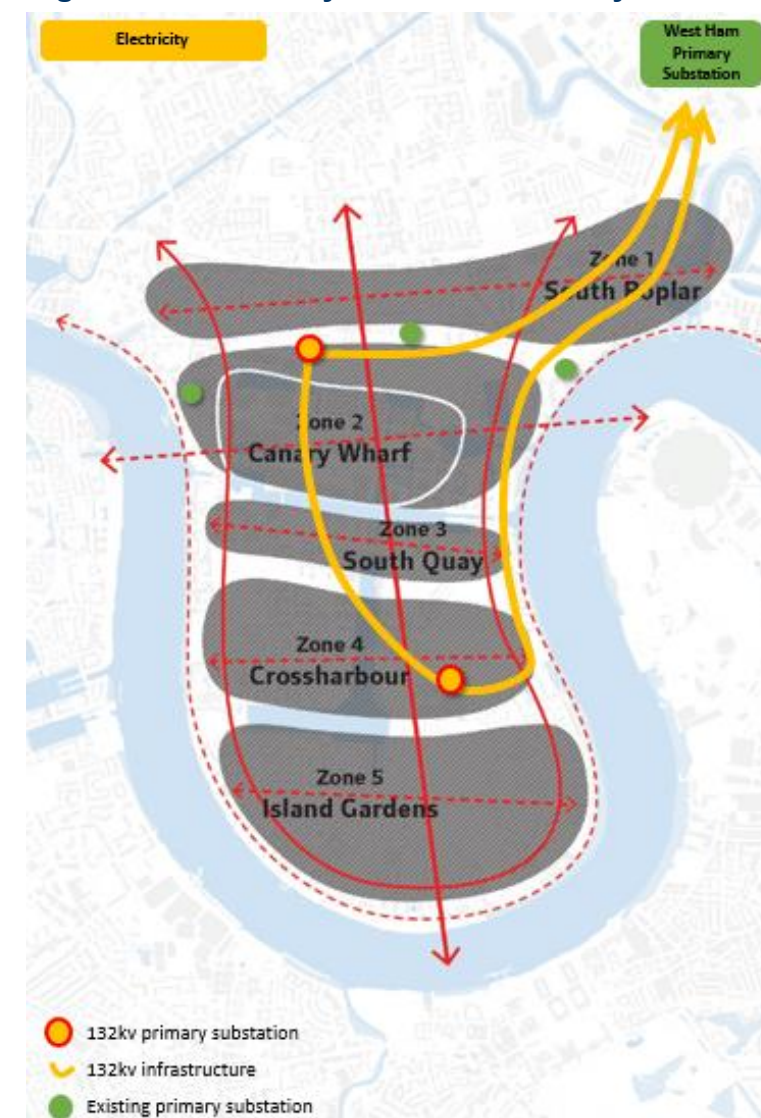
Electricity

What infrastructure is needed?

- 4.4 The study area is served by strategic electricity infrastructure which arrives in the form of a series of 132kv supplies from West Ham GSP - at Simpsons Road, West Ferry Circus and Brunswick Wharf. Each of these sites then steps down the 132kv supply to 11kv provision that serves local sub-stations across the wider area. UPKN (LPN) has confirmed that the capacity at the substation at Simpsons Road (which comprises four transformers) and West Ferry Circus (which also comprises four transformers) is fully utilised by existing development, and no spare capacity exists to serve potential growth. UKPN have not been able to confirm the status of the Brunswick Wharf facility at present – but our view is that it is unlikely that significant spare capacity will exist here due to the maturity of the area and the electricity network.
- 4.5 Based on the likely demand from the projected growth areas it is likely that two additional primary substations (stepping down and incoming 132kV supply to distribution at 11kV) will be required within the IoD study area.
- 4.6 The new substations will require a land take of 0.1 – 0.15 Ha, depending on their exact configuration, and it may be possible to embed them within development plots – although this would need to be determined at detailed design stage when a location had been identified. The substations will need to be positioned within the area to provide the most efficient response possible, to try to minimise the cable lengths and losses that may occur – this would be subject to

detailed design based on the loadings, land availability and projected land uses and phasing. For now, we are assuming a land take of 1,200 sqm for each substation.

Figure 4.1 Electricity needs in the study area



- 4.7 To deal with future maintenance efficiency, it is likely that the new 132kV cable infrastructure would preferably be laid within utility tunnels rather than in a traditional trench. This has operational efficiencies, but may increase the lead time to procurement – potentially to as long as two or three years. This would therefore need to be run in conjunction with the lead time required for the primary substations.
- 4.8 UPKN (LPN) has provided an estimated cost for cable tunnelling of c. £1.0m per kilometre with a total estimated length calculated as 6 kilometres.
- 4.9 In order to distribute the electricity between the primary substations and end users, new localised distribution substations would be required to step down 11kV electricity to low voltage (LV) supply. This level of detail will be established as the masterplan is developed and consultation with UKPN is progressed. However, these local distribution networks (11kv downwards) would be expected to be procured and funded by the developer.

- 4.10 Electrical plant removal works will be required as part of the site remediation process, including the removal or relocation of localised distribution substations within the development areas and the diversion of the associated HV and LV network. The extent of the works required will be determined on a site by site basis as each masterplan is developed and consultation with UKPN (LPN) is progressed.

How can infrastructure be paid for?

- 4.11 Strategic electricity infrastructure would typically be provided by the incumbent Distribution Network Operator (DNO) – UKPN in this case. They would do this through their Asset Management Programmes. However, this can be difficult in practice, as the review of the AMP may not coincide or align with the development process.
- 4.12 Therefore, it may be necessary to provide funds up front to procure this strategic network, and then for this investment to be recovered from developers as and when they connect to the network under the “Second Comer” arrangements within the statutory framework. This can be further secured through the primary funder taking a stake in the infrastructure, through ownership of the sub-station sites.
- 4.13 The more local infrastructure would be divided pro-rata between relevant developers. There may be opportunity for them to share the benefits of the local network reinforcement, depending on need in the local area at the time and the final expected demand of the proposed development.
- 4.14 There could also be opportunity to discuss proposals with independent distribution network operators (IDNOs) or independent connection providers (ICPs), to explore the possibility of off-setting start-up costs with future revenue. This is typically an option when retaining a single IDNO to provide and supply a single utility, or otherwise joint utilities (typically gas and electricity) which could result in a greater cost off-set. This would require in depth engagement and full understanding of all benefits and weaknesses.

Notes, issues and recommendations

- 4.15 UKPN (LPN) are in the process of running a capacity investigation on their network to access the extent of any reinforcement which may be required to supply the development. All costs are high level only, and based on limited information at this stage of the consultation process with the utilities. A view has been taken on the potential new infrastructure requirements based on a high level review of the anticipated demand, layout of the site, experience from other similar schemes and the current status of the local electricity network known at this time. Further engagement with UKPN is ongoing in order to fully understand the new infrastructure requirements and reinforcement requirements, including the precise location of the primary substations and delivery duration. UKPN has advised that a new primary substation has a significant lead time due to the procurement process and dealing with statutory requirements. This could be as extensive as five years, including design and planning, and so earlier engagement with this issue is advised. However, it is anticipated that during further consultation with UKPN, a strategy will be developed which will enable the first few phases of development (five to eight years) being served from existing HV infrastructure and new local substations, whilst the two primary substations and new 132kV able infrastructure is being installed and commissioned.

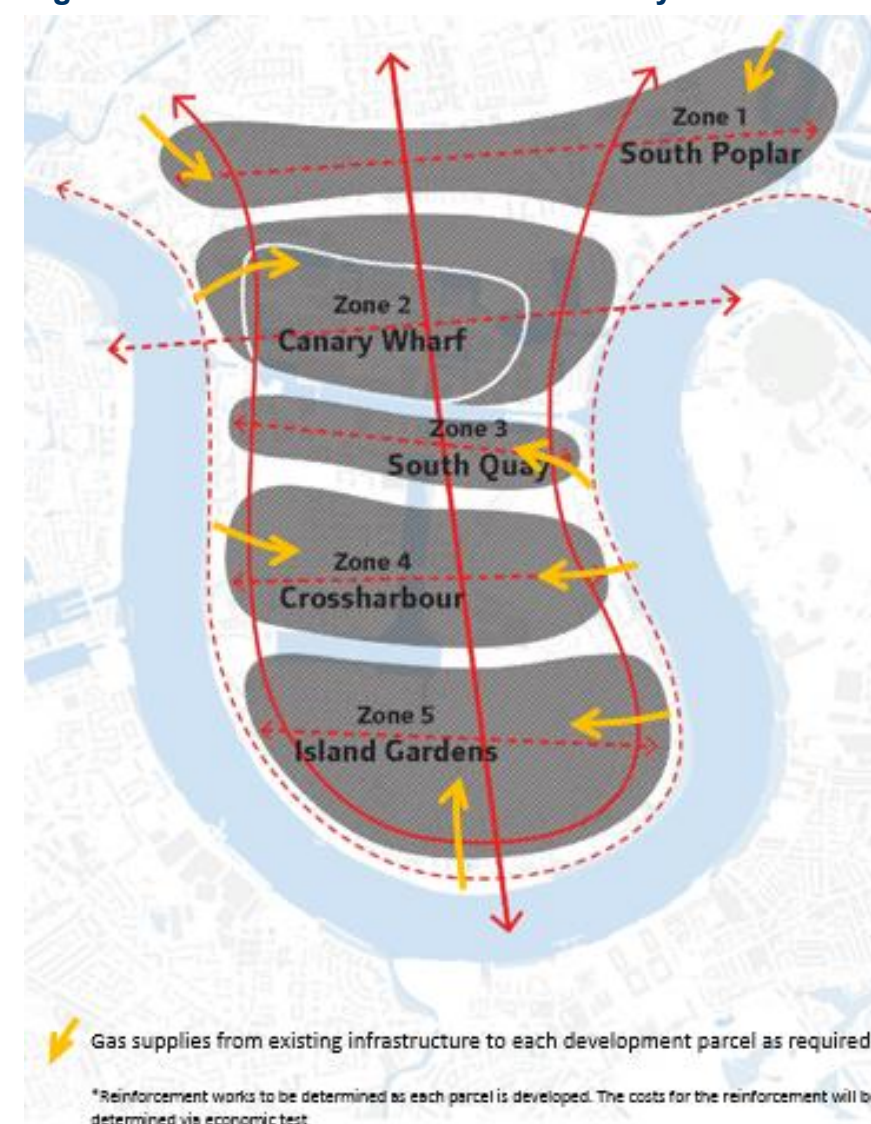
- 4.16 Any land costs that we include in this study will be subject to change. Our cost estimates are based on the standard industrial land value of £7.491 million per hectare. This cost is not site specific and will therefore change when specific sites are selected for development. This land cost is here as a guide only.

Gas

What infrastructure is needed?

- 4.17 The network within the development boundary is currently a mixture of low pressure (LP) and medium pressure (MP) fed from Leamouth intermediate pressure (IP) and in turn fed from the high pressure (HP) offtake at Beckton.
- 4.18 National Grid Gas has confirmed that the existing LP infrastructure around the development currently has sufficient capacity to supply the anticipated development demands. Hence, no strategic reinforcement is envisaged at this stage.

Figure 4.2 Gas reinforcements in the study area



- 4.19 Some local reinforcement or diversion works on the LP networks may be required as each development parcel is built out, and these will be assessed in more detail by NGG when they receive individual connection requests. The costs of the supplies to each parcel will be determined via individual connection requests and economic tests, therefore a nominal cost has been provided to bring anticipated supplies to the development areas - but this would typically be the preserve of the developers to procure for their sites.
- 4.20 Gas removal works will be required as part of the site remediation process, including the removal or relocation of existing distribution network in the development areas and the diversion of the associated LP network. The extent of the works required will be determined on a site by site basis as each masterplan is developed and consultation with NGG is progressed.

How can infrastructure be paid for?

- 4.21 At this stage it is assumed that the cost of this infrastructure would be divided pro-rata between relevant developers. There may be opportunity to share the benefits of network diversion or reinforcement, depending on need in the local area at the time and the final expected demand of the proposed development.
- 4.22 There could also be opportunity to discuss proposals with independent gas transporters (IGTs), to explore the possibility of off-setting start-up costs with future revenue. This is typically an option when retaining a single IGT to provide and supply a single utility, or otherwise joint utilities (typically gas and electricity) which could result in a greater cost off-set. This would require in depth engagement and full understanding of all benefits and weaknesses.

Notes, issues and recommendations

- 4.23 Having carried out an initial assessment NGG has confirmed that taking current known reinforcement and replacement strategies into consideration, their models predict that there should be no restrictions on the Medium Pressure (below 7 bar pressure), Intermediate Pressure Networks and the LTS networks (over 7 bar pressure) that couldn't be managed by standard processes.
- 4.24 All costs are high level only, and based on limited information at this stage of the consultation process with the utilities. A view has been taken on the potential new infrastructure requirements based on a high level review of the anticipated demand, layout of the site and the current status of the local gas network known at this time. Further engagement with NGG is ongoing in order to fully understand the new infrastructure requirements, the extent of any network reinforcement and details of the location of new pressure reduction stations together with delivery duration.

Telecoms

What infrastructure is needed?

- 4.25 The development area is served by a number of telecom providers with a combination of fibre and copper distribution networks.
- 4.26 Telecoms distribution is expected to be offered by a combination of providers offering fibre and copper infrastructure. Distribution will be provided from adjacent cabling and joint boxes to serve development areas. Telecom removal works or protection measures may be required as part of

the site remediation process. The extent of the works required will be established when the masterplan is developed and consultation with the telecom providers are initiated. We envisage that the existing networks within the development areas will be decommissioned as the development proceeds. New networks will be constructed to supply the proposed development within the development highway network.

- 4.27 Zone 2 Canary Wharf is likely to require 'continuity of supply' for new infrastructure. This ensures that required supplies are maintained in the event of any outages. At this stage of the investigations, we have not made allowance for any additional cost associated with extra supplies, as it is down the discretion of developer as to whether these supplies are required.

How can infrastructure be paid for?

- 4.28 Telecoms costs have not been allowed for, because these are invariably privately funded through an agreement between the provider and individual developers.
- 4.29 Hence, there will be no likely effects on public spending or on development viability, unless a decision was taken to make an exceptional level of provision – but this is outside of the scope of this study.
- 4.30 Telecom providers will normally require developers to excavate and lay the necessary ducts and joint boxes, which would be provided through normal costs assumptions on the part of developers. In the case of Openreach, they will provide them free of charge, and construct the necessary chambers as part of the general highway construction works. All other works are typically undertaken by Openreach at their expense, provided each individual connection does not exceed £3,400. In urban areas, this connection cost is highly unlikely to be exceeded. Indeed, for larger residential developments, it is sometimes possible to negotiate for the telecoms provider to pay the developer per dwelling connected and this should be reviewed further by developers.
- 4.31 Commercial users requiring super-fast broadband speeds will be responsible for procuring their own connections from the telecommunications providers. This will be provided via newly installed duct networks.
- 4.32 It is likely that the developers will receive a payment from the telecom providers on a plot (residential) basis once the telecommunications duct network has been formally adopted by the telecommunications provider.

Notes, issues and recommendations

- 4.33 It is likely that the development areas will be supplied from localised existing fibre or copper telecoms infrastructure, with new supply feeds to each area where required. The key factor will be the timely dialogue with Openreach so that works can be planned and implemented well in advance. The provision of thousands of new lines will require planning and implementation that will span years rather than months. Smart Cities infrastructure work may require particularly high grade connections, and it could be helpful to review progress at other areas of London (notably, Old Oak) to explore whether Isle of Dogs could be used for pilot schemes. These schemes can be expected to be provided by telecoms companies rather than representing a charge on the public sector or developers.

Potable water

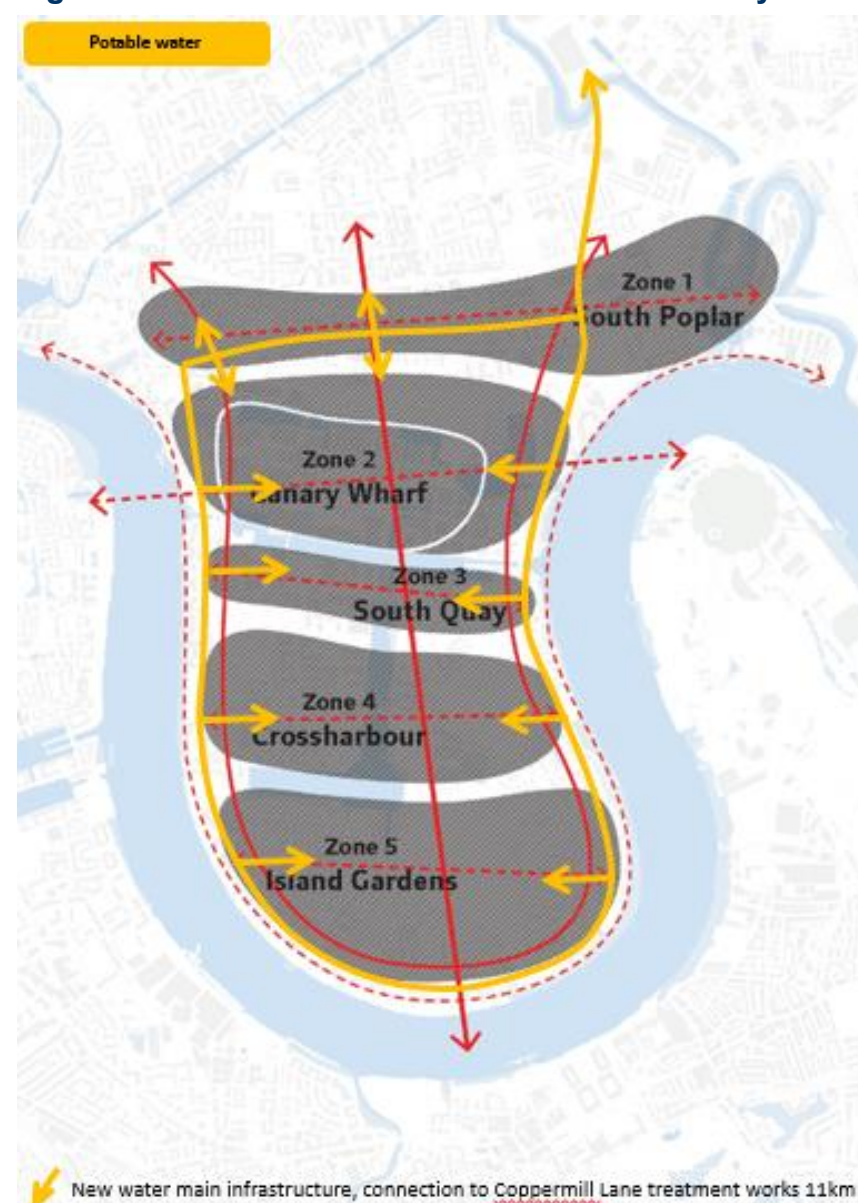
What infrastructure is needed?

- 4.34 Existing infrastructure Thames Water (TW) has confirmed that there is insufficient capacity in their networks to serve the site. This shortfall relates to both the strategic provision to the area, and the local mains around the study area that would serve individual sites.

Required infrastructure

- 4.35 TW have advised that they would need to provide strategic reinforcement from their Coppermill Lane Water Treatment Works into the IoD area. This will require approximately 11km of new strategic mains consisting of new pipelines ranging from 300mm to 900mm in diameter.
- 4.36 Within the study area the local distribution network would require around 5km of new infrastructure as shown below.

Figure 4.3 Water infrastructure needs in the study area



- 4.37 We have estimated a blended cost rate for all water pipes of £300 per metre to lay new water infrastructure around the development area. A total estimated length has been calculated as 15 kilometres.
- 4.38 Water infrastructure removal works will be required as part of the site remediation process, including the removal or relocation of existing distribution network in the development areas and the diversion of the associated network. The extent of the works required will be determined on a site by site basis as each masterplan is developed and consultation with Thames Water is progressed.
- How can infrastructure be paid for?*
- 4.39 At this stage it is assumed that the cost of this infrastructure would be divided pro-rata between the relevant developers on a cost per plot or cost per litre second basis. Water undertakers, such as Thames Water, are currently required by legislation to offer a payment mechanism where the first 12 years of revenue is offset by the capital expenditure of the scheme. This deficit (gap between yearly average capital expenditure and revenue) is subsequently recovered either as a yearly cost (where loan interest is incurred) to the developer.
- 4.40 If public funding were to be made available to ensure the timely delivery of water infrastructure this could then be recovered from TW as developers paid to connect to the newly reinforced network.

Notes, issues and recommendations

- 4.41 All costs are high level only, and based on limited information at this stage of the consultation process with the utilities. A view has been taken on the potential new infrastructure requirements based on a high level review of the anticipated demand, layout of the site and the current status of the local potable water network known at this time. Thames Water have been working with numerous developers operating in the area to assess the local impact of the new demand. They have also started to collate collective information to assess the wider impact on the Flow Monitoring Zone (FMZ) the Isle of Dogs sits in.
- 4.42 The FMZ initial study highlighted the need for large scale reinforcement from the Isle of Dogs back to the Thames Water treatment works at Coppermill. However, this study did not factor in all the development proposals emerging and a more detailed study is required to use the emerging numbers to get a clear picture of impact and trigger points. Thames Water are in the process of undertaking a network modelling exercise to assess the extent of reinforcement which is required to supply the development. Thames Water has advised that a combined potable water and foul network modelling exercise will cost approximately £75,000 to undertake. They have asked for a portion of it to be funded internally by Thames Water, and suggest a customer contribution of £25,000 as a starting point for negotiation. Further consultation with Thames Water is recommended in order to progress the network modelling exercise.

Sewers, drains and SUDS

What infrastructure is needed?

- 4.43 Thames Water (TW) is responsible for the foul water sewer network, maintenance and treatment/disposal of foul sewage. Initial consultations have been made with TW regarding the

provision of foul sewerage for the proposed development, but Thames Water heavily caveat their inputs to this study. Thames Water (TW) has confirmed that no large scale study into the overall impact of the potential demand has been carried out to date. They have advised that the network should be able to cope with the near future development. However, the emerging risk is the impact of surface water flows into the combined network. A holistic approach to dealing with all surface water flows needs to be developed to help mitigate major waste water reinforcement in the area. TW state that there is a need to undertake separate detailed modelling (a “network study”). This modelling will identify what if any spare capacity exists in the local catchments to facilitate early occupation ahead of upgrades.

- 4.44 TW state that the area is served by a combined sewer network, conveying both foul and surface water sewage. This means that during heavy rainfall, there is less capacity is available in the combined sewer for foul flows, so increasing flood risk from both surface water and sewers. If surface water could be redirected away from the foul sewerage system, then significant capacity in the foul system could be opened up, meaning that the foul system may not need to be upgraded to cope with planned growth. TW has also advised that their preferred policy to facilitate the proposed growth will be to configure new networks, ensuring that all Surface Water is routed away from combined sewers and is taken to docks or the River Thames. In an existing network, this could be difficult,
- 4.45 so the right approach would be to seek to determine the location of the major or significant surface water flows were, and see if they could be re-directed to an outfall in the Thames. This would create additional capacity in the foul network – but only in the section downstream of where the surface water flow had been removed from. Hence the search area for the new developments would be to seek significant surface water connections that could be diverted that were upstream of where the proposed foul sewer connection occurred from the development.
- 4.46 The London Plan requires SUDS to reduce surface water flows. The new development areas would all have to comply with SUDS, i.e. deal with surface water run off at greenfield rates, attenuated to the same outfall as is currently the case. In many instances, this will be into the foul sewer system which has capacity difficulties. In these instances, sites may have to find, and gain approval for, wholly new surface water outfalls. This could be time consuming, and difficult in terms of land control and getting approval to the outfall into the river.
- 4.47 A wide range of sustainable drainage techniques are possible alongside this. A number of measures could be introduced to improve integrated drainage.
- 4.48 The use of a strategic rainwater harvesting system across the redevelopment area would capture rainwater and reduce surface water discharges and potentially could also lead to reduced water demand and ultimately operational cost savings across the sites. Greywater harvesting costs have been built into build costs; green roofs and brown roofs will further reduce rainwater discharge; a new landscaping and public/private spaces should be designed to infiltrate and absorb rainwater wherever possible.
- 4.49 Once the separated surface water system is in place, and all reasonable measures to limit the volume and rate of discharge have been designed into the developments, opportunities to direct the discharge to the watercourses or Docks can be explored.

How can infrastructure be paid for?

- 4.50 Run-off reduction will be paid for by individual developers as part of their typical build costs so separate costs do not appear here. The sensible approach to on-site storage this is that each developer deals with the issue locally within their site boundary or on other land under their control.
- 4.51 Alterations to drainage design would need to be incorporated into individual developers’ designs, and so would be dealt with by developers as part of their typical build costs. Therefore, separate costs do not appear here. Joint work would need co-ordination.
- 4.52 TW generally requires extensions to and reinforcement of the foul water sewerage network to be funded by the proposed development so separate costs do not appear here. It is assumed that the cost of the infrastructure will be pro-rata'd between the relevant developers. The sewer network upgrades could be requisitioned from Thames Water via Section 98 of The Water Industry Act 1991. This would reduce the costs liable to the developer.
- 4.53 Grey water harvesting costs have been built into build costs, so separate costs do not appear here.
- 4.54 Some systemic works may be covered by the water industry. Without the network study, we do not know what these costs are. With sufficient notice, systemic works may be delivered via the 5-year AMP cycle. Any charges to be met by the developer will be determined via a Section 98 agreement under the Water Industry Act (duty to comply with sewer requisition). Again as with the Section 41, there are two payment mechanisms for meeting any financial obligation to be met by the developer (i.e., a capital contribution and a requisition arrangement). Once TW get greater certainty about development (such as inclusion in a Local Plan/ planning approval) then this information will help support any future investment submission to the OFWAT regulator.

Notes, issues and recommendations

- 4.55 As set out in the above, TW state that there is a need to undertake detailed modelling. Thames Water has advised that a combined potable water and foul network modelling exercise will cost approximately £75,000 to undertake. They have asked for a portion of it to be funded internally by Thames Water, and suggest a public sector contribution of £25,000 as a starting point for negotiation. Further consultation with Thames Water is recommended in order to progress the network modelling exercise.
- 4.56 As plans mature, there will need to be discussions with Thames Water in relation to build over agreements, diversions, and inset agreements.
- 4.57 Developers may need to explore the possibilities offered by onsite treatment and grey/green water recycling. Further consideration and investigation of SUDS could be made.

Waste

What infrastructure is needed?

Options for waste disposal in high density urban areas

- 4.58 Scoping work has recently been undertaken for LBTH (October 2016) entitled 'Merged Waste Management Evidence Base'. This work investigated options for waste disposal in high density

urban areas. A number of options were explored, including underground vacuum collection systems provided by two companies (Envac and Marimatic). Both essentially provide a network of low pressure underground pipelines, connected to on-street stations, which moves waste towards a terminal building. We are unaware of whether a specific policy choice has been made between the merits of these or other systems and include these costs as a guide only. We note that the Envac system is included in the IDP. This DIFS report does not endorse any choice of system or method. However, for our purposes here we use costs provided by the earlier report. Although these were provided by for both vacuum systems, here, we present data collected by the report for the Envac system only for purposes of illustration.

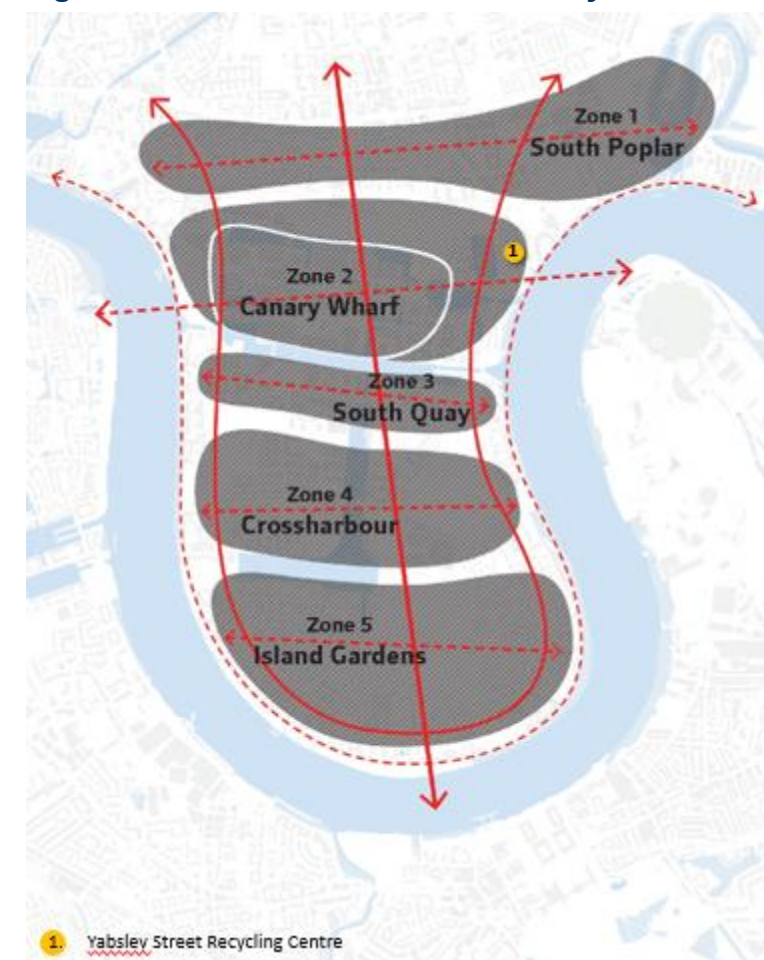
- £400,000 for Envac equipment within an illustrative 600-unit residential building was quoted by the report⁹. This equates to £666 per unit.
- The collection station is required for each system to provide space for storing large containers which aggregate/bulk up the collected materials.
- A collection station to collect from 9,000 apartments would cost in the region of £1.25m¹⁰. This equates to £138 per unit (build costs).
- No cost was provided by the report for underground pipework, presumably because so much will depend on individual site circumstances. Our approach here has been to round the system costs up to provide a rough allocation of costs for the pipework associated with the system, but we make no claim for the accuracy of this approach in the absence of site-specific information.
- The space required for this (i.e. 300m² for a residential block of 600 units) and its location within the development needs to be factored into the overall development design and cost. It is possible to site these underground; however, access for the collection vehicle must be allowed for. Using these indicators as a guide, each unit would require space equivalent to 0.5sqm per residential unit.

4.59 We reiterate the warnings provided elsewhere in this report that these costs are indicative only.

Improving the existing municipal waste management facilities

4.60 This assumes that there would be sufficient mass of waste collected to justify bringing an Envac or similar facility on stream and some interim provision using existing facilities may have to be provided until the point of critical mass is reached. We understand from Tower Hamlets that the existing municipal waste management facilities would also require some enhancement to enable them to deal with additional waste generated by new development and this may also involve temporary enhancement of facilities within the Borough or externally to manage any temporary position whilst the Envac system is brought fully on line. This extra capacity will be taken on board through enhancements to the recycling/reuse facilities. We have allowed £3m (to take us to 2031) and a further £1m (to take us pro-rata to 2042). In total a cost of £4m has been calculated for improvements existing recycling centre at Yabsley Street over the full delivery period.

Figure 4.4 Waste facilities in the study area



No Materials Recovery Facility (MRF) is included here

4.61 LBTH do not envisage provision of their own Materials Recovery Facility on grounds of cost efficiency. Any MRF will be offsite. As a consequence, no allowance is made for such a facility following consultation with officers. Usage costs/cost formula for this are likely to form part of the new waste management contract which can be expected to flex with planned growth over time. Consultation with officers has indicated that LBTH are currently procuring a waste management contract. Whilst we are not currently privy to the contract it is likely that there will be growth clauses within it designed to cover the cost of processing additional waste quantities arising from population growth and one would expect that the contract is sufficiently robust such that additional costs would be covered by the additional rating revenue derived.

It is unlikely that there is currently capacity within the collection system

4.62 Irrespective of the choice of Envac or other system, the volume of growth envisage may necessitate additional collection capacity in the form of refuse collection and/ or bulk haulage vehicles. We have therefore assumed a contribution in our costings, pro-rata with build-out.

⁹ 'Merged Waste Management Evidence Base' Report 5 p17

¹⁰ Ibid p17 table footnote

Commercial concerns will need to make separate waste disposal arrangements

- 4.63 It is assumed that private concerns such as businesses will continue to need to enter into a commercial contract with waste collectors.

How can infrastructure be paid for?

Envac costs have been integrated into build costs, meaning that we assume developers pay

- 4.64 We assume that the space for the collection system will be provided through individual applications, and that sufficient space can be found from within the red line of individual development plans. To account for Envac costs we have included an estimated £1,000 per residential unit although this figure is very broad brush. We assume on-site storage capacity for waste for each property, and servicing access to the properties, forms part of the development build costs. We have therefore not presented a separate infrastructure project cost here.

Improving the existing municipal waste management facilities

- 4.65 These costs are assumed to be sought from developer contributions. Other waste management costs are assumed to be covered by growth clauses in waste management contracts
- 4.66 As set out above usage costs are likely to form part of waste management contracts which flex over time under a usage cost/formula.

Commercial concerns will pay directly for their own waste disposal needs

- 4.67 It is assumed that private concerns such as businesses will need to enter into a commercial contract with waste collectors.

Notes, issues and recommendations

The practicalities of delivering an area-wide Envac-type system would need careful further study

- 4.68 There is evidence of the Envac-type system being brought forward on new developments in the UK (e.g., Wembley, London) but there are considerable complexities created when pipework needs to be undergrounded in existing street forms. Existing utilities greatly complicate the delivery of the system, and creating an integrated developer response across sites could be highly complex.

Education of the public will have a part to play in reducing waste

- 4.69 LBTH is responsible for the collection of domestic waste and notwithstanding any efforts to educate the public to avoid producing waste it is probable that any net increase in population and economic activity will increase the amount of waste produced. Any increased tonnages of both unrecoverable and recoverable materials will impact directly upon the collection service and other supplementary services.

CHP and heat network

What infrastructure is needed?

- 4.70 For the Heat Network appraisal of the Isle of Dogs Development Infrastructure Funding Study (DIFS), we have worked under the GLA Zonal Plan (South Poplar, Canary Warf, South Quay, Cross Harbour, Island Gardens). The provision of a heat network is as per the GLA Policy within

Chapter 5 of the London Plan which requires developers to prioritise connection to existing or planned decentralised energy networks where feasible or develop their own site wide community heating system supplied by gas fired boilers and CHP. There is an existing heat network within the DIFS opportunity area, Barkantine, which sits within Zone 4 (Crossharbour).

- 4.71 The heat network infrastructure has been assumed to comprise three elements. The internal infrastructure has not been apportioned for as this is already accounted for within the developer costs.

- HN01) Energy Centre
- HN02) Primary Heat Pipework
- HN03) Primary Heat Substations

Development assumptions

- 4.72 A high level cost estimate has been made for the above infrastructure elements across the two growth scenarios. There are existing and planned heat networks within the study area and since some of the lower density sites (within Island Gardens) are unlikely to be suitable for DHN connection. Therefore, these growth scenarios were reduced appropriately across the dwelling numbers, as agreed with Jonathan Taylor at LBTH on 03/03/2017 and 10/03/2017. This dwelling reduction is based upon the removal of sites with existing/proposed self-provision (sites 1, 2,24,25), the removal of sites within Islands Gardens which are not geographically applicable (sites 50,53,56) and a 50% dwelling reduction of sites to be included within the existing Barkantine Heat Network extension (sites 12,15,18,19,47, 87). The maximum growth scenario has seen a dwelling reduction of 7,268. The high growth scenario has seen a dwelling reduction of 7,161.

Heat network demand/cost assumptions

- The heat network demand/cost assumptions have been calculated based on the projected residential development only. The residential development makes up the majority of the DIFS development overall. Furthermore, commercial development may not necessarily be heated through a 'wet' district heating system but instead electrically driven and therefore not DH compatible.
- Costs for the development have been set at 15% prelims plus 10% contingency (G&T, as well as PBA experience).
- The gross cost £/kW equates to the net construction cost.
- £/MW has been established based upon the assessment of the Costs, Performance, and Characteristics of UK Heat Networks 9DECC (2015) Table 8)
- £/kW is based up PBA experience
- HN01) Energy Centre – The energy centre sizing has been based on kW/dwelling (Heat networks: Code of Practice for the UK, CP1 2015).
- HN02) Primary Heat Pipework – The length of pipe required is unknown at this stage. Therefore, heat pipe costs are assumed to be £600/per dwelling on average/typical based on PBA experience.

- HN03) Primary Heat Substations - Substation sizing is based upon kW/dwelling plus 10% (Eneteq)

How can infrastructure be paid for?

- 4.73 It has been assumed that the developer will fund the network however the internal infrastructure has not been apportioned for as this is already accounted for within the individual site developer costs. We have been instructed to include CHP within the developers' build costs as it is a development plan requirement. It may be that in future years, developers could secure an income by leasing or selling the CHP infrastructure to a MUSCO or an ESCO who would then be able use the infrastructure to create an income for themselves. However, by adopting the approach of including the upfront costs within build costs, this possibility cannot be captured here.

Notes, issues and recommendations

- 4.74 Other key assumptions include:
- No (gas) re-enforcement included but, based on the current development assumptions, this would not be required.
 - Assume gas CHP energy centre with gas boiler back up
 - No allowance for (physical) private electric wire which may or may not be part of CHP scheme
 - Demand based on residential/dwelling elements only. No allowance for commercial elements have been made as residential demand will make up the majority of total heat demand/load.
 - Dwelling numbers utilised are based on a reduced trajectory which was agreed. The growth scenarios were reduced on basis of removing any sites with existing/proposed self-provision, the removal of sites within Islands Gardens which were not geographically applicable and a 50% dwelling reduction of sites to be included within the existing Barkantine Heat Network extension.
 - Peak loads have been based upon diversified loads using CIBSE Heat networks: Code of Practice for the UK CP1 2015. Assessed a 1.8kW peak heat demand per dwelling for energy centre sizing.
 - Heat pipe costs assumed to be £600/per dwelling based on average/typical based on PBA experience. Only dwellings/residential has been looked at to determine heat network requirements.
 - Costs have been set at 15% prelims plus 10% contingency (G&T, as well as PBA experience)
 - Secondary/internal pipework/HIUs costs are excluded (nothing beyond primary heat substations)
 - Costs have been phased in line with development programme. In practice some of the heat infrastructure costs (energy centre, pipework) may be delivered in advance of development built out and connection so timings should be reviewed once further details are known.

Electricity

Onsite primary infrastructure

Project name	2 No. 132/11 kV Primary Substations
Project ref	UE01
About the project	Primary substations required at Canary Wharf and Crossharbour to distribute electricity to the IoDSP.
What priority?	1) critical enabling
Which lead organisation?	UK Power Networks (LPN)
Project delivery risk	
Strategic/zone specific? Which zone?	Strategic cross-site

Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042		
High growth scenario	Project details for this scenario																											
	Gross cost (£000s)	40,000		8,000	8,000	8,000	8,000	8,000																				
	Cost attrib. to South Poplar (with PP) (£000s)	-																										
	Cost attrib. to South Poplar (Potential Growth) (£000s)	-																										
	Cost attrib. to Canary Wharf (with PP) (£000s)	14,000		2,800	2,800	2,800	2,800	2,800																				
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	-																										
	Cost attrib. to South Quay (with PP) (£000s)	6,000		1,200	1,200	1,200	1,200	1,200																				
	Cost attrib. to South Quay (Potential Growth) (£000s)	-																										
	Cost attrib. to Crossharbour (with PP) (£000s)	14,000		2,800	2,800	2,800	2,800	2,800																				
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	-																										
	Cost attrib. to Island Gardens (with PP) (£000s)	6,000		1,200	1,200	1,200	1,200	1,200																				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	-																										
	Cost attrib. to other (£000s)	-																										
	Mainstream funding assumed (£000s)																											
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																											
	Unallocated dev. contrib. agreed (S106) (£000s)																											
	CIL/S106 funding sought from developments (£000s)																											
	Developer delivery (£000s)	40,000	-	8,000	8,000	8,000	8,000	8,000	8,000																			
	Other funding sought (£000s)																											
	Medium growth scenario	Project details for this scenario																										
		Gross cost (£000s)	40,000		8,000	8,000	8,000	8,000	8,000																			
		Cost attrib. to South Poplar (with PP) (£000s)	-																									
		Cost attrib. to South Poplar (Potential Growth) (£000s)	-																									
Cost attrib. to Canary Wharf (with PP) (£000s)		14,000		2,800	2,800	2,800	2,800	2,800																				
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		-																										

Electricity

Onsite distribution infrastructure

Project name	132kV Primary Cable Network
Project ref	UE02
About the project	Primary cable network required to connect additional substations and distribute electricity
What priority?	1) critical enabling
Which lead organisation?	UK Power Networks (LPN)
Project delivery risk	
Strategic/zone specific? Which zone?	Strategic cross-site

Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042	
High growth scenario	Project details for this scenario																										
	Gross cost (£000s)	6,000				3,000		3,000																			
	Cost attrib. to South Poplar (with PP) (£000s)	750				375		375																			
	Cost attrib. to South Poplar (Potential Growth) (£000s)	-																									
	Cost attrib. to Canary Wharf (with PP) (£000s)	1,800				900		900																			
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	-																									
	Cost attrib. to South Quay (with PP) (£000s)	600				300		300																			
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	-																									
	Cost attrib. to Crossharbour (with PP) (£000s)	1,800				900		900																			
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	-																									
	Cost attrib. to Island Gardens (with PP) (£000s)	750				375		375																			
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	-																									
	Cost attrib. to other (£000s)	300																									
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (S106) (£000s)																										
CIL/S106 funding sought from developments (£000s)																											
Developer delivery (£000s)	5,700				2,850		2,850																				
Other funding sought (£000s)																											
Medium growth scenario	Project details for this scenario																										
	Gross cost (£000s)	6,000				3,000		3,000																			
	z1 South Poplar (% of gross cost)																										
	z2 Canary Wharf (% of gross cost)																										
	z3 South Quay (% of gross cost)																										
	z4 Crossharbour (% of gross cost)																										
	z5 Island Gardens (% of gross cost)																										
	Outside DIFS area (% of gross cost)																										
	Cost attrib. to South Poplar (with PP) (£000s)	750				375		375																			
	Cost attrib. to South Poplar (Potential Growth) (£000s)	-																									
	Cost attrib. to Canary Wharf (with PP) (£000s)	1,800				900		900																			
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	-																									
	Cost attrib. to South Quay (with PP) (£000s)	600				300		300																			
	Cost attrib. to South Quay (Potential Growth) (£000s)	-																									
	Cost attrib. to Crossharbour (with PP) (£000s)	1,800				900		900																			
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	-																									
	Cost attrib. to Island Gardens (with PP) (£000s)	750				375		375																			
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	-																									
	Cost attrib. to other (£000s)	300																									
	Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (S106) (£000s)																											
CIL/S106 funding sought from developments (£000s)																											
Developer delivery (£000s)	5,700				2,850		2,850																				
Other funding sought (£000s)																											
Low growth scenario	Project details for this scenario																										
	Gross cost (£000s)	6,000				3,000		3,000																			
	z1 South Poplar (% of gross cost attributable)																										
	z2 Canary Wharf (% of gross cost)																										
	z3 South Quay (% of gross cost)																										
	z4 Crossharbour (% of gross cost)																										
	z5 Island Gardens (% of gross cost)																										
	Outside DIFS area (% of gross cost)																										
	Cost attrib. to South Poplar (with PP) (£000s)	750				375		375																			
	Cost attrib. to South Poplar (Potential Growth) (£000s)	-																									
	Cost attrib. to Canary Wharf (with PP) (£000s)	1800				900		900																			
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	-																									
	Cost attrib. to South Quay (with PP) (£000s)	600				300		300																			
	Cost attrib. to South Quay (Potential Growth) (£000s)	-																									
	Cost attrib. to Crossharbour (with PP) (£000s)	1800				900		900																			
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	-																									
	Cost attrib. to Island Gardens (with PP) (£000s)	750				375		375																			
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	-																									
	Cost attrib. to other (£000s)	300																									
	Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (S106) (£000s)																											
CIL/S106 funding sought from developments (£000s)																											
Developer delivery (£000s)	5,700				2,850		2,850																				
Other funding sought (£000s)																											

Gas

Onsite primary infrastructure

Project name	Low Pressure Parcel Supplies																							
Project ref	UG01																							
About the project																								
What priority?	1) critical enabling																							
Which lead organisation?	National Grid Gas																							
Project delivery risk																								
Strategic/zone specific? Which zone?	Strategic cross-site																							

Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth sc	Project details for this scenario																									
	Gross cost (£000s)	1,500	300	300	300	300	300																			
	Cost attrib. to South Poplar (with PP) (£000s)	240	240																							
	Cost attrib. to South Poplar (Potential Growth) (£000s)	-																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	240	240																							
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	-																								
	Cost attrib. to South Quay (with PP) (£000s)	240	240																							
	Cost attrib. to South Quay (Potential Growth) (£000s)	-																								
	Cost attrib. to Crossharbour (with PP) (£000s)	240	240																							
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	-																								
	Cost attrib. to Island Gardens (with PP) (£000s)	240	240																							
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	-																								
	Cost attrib. to other (£000s)	300																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)																									
	Developer delivery (£000s)	1,200	1,200																							
	Other funding sought (£000s)																									
Medium growth	Project details for this scenario																									
	Gross cost (£000s)	1,000	200	200	200	200	200																			
	Cost attrib. to South Poplar (with PP) (£000s)	160	160																							
	Cost attrib. to South Poplar (Potential Growth) (£000s)	-																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	160	160																							
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	-																								
	Cost attrib. to South Quay (with PP) (£000s)	160	160																							
	Cost attrib. to South Quay (Potential Growth) (£000s)	-																								
	Cost attrib. to Crossharbour (with PP) (£000s)	160	160																							
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	-																								
	Cost attrib. to Island Gardens (with PP) (£000s)	160	160																							
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	-																								
	Cost attrib. to other (£000s)	200																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)																									
	Developer delivery (£000s)	800	800																							
	Other funding sought (£000s)																									
Low growth	Project details for this scenario																									
	Gross cost (£000s)	1,000	200	200	200	200	200																			
	Cost attrib. to South Poplar (with PP) (£000s)	160	160																							
	Cost attrib. to South Poplar (Potential Growth) (£000s)	-																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	160	160																							
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	-																								
	Cost attrib. to South Quay (with PP) (£000s)	160	160																							
	Cost attrib. to South Quay (Potential Growth) (£000s)	-																								
	Cost attrib. to Crossharbour (with PP) (£000s)	160	160																							
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	-																								
	Cost attrib. to Island Gardens (with PP) (£000s)	160	160																							
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	-																								
	Cost attrib. to other (£000s)	200																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)																									
	Developer delivery (£000s)	800	800																							
	Other funding sought (£000s)																									

Telecoms

What infrastructure is needed?

Existing infrastructure

The development area is served by a number of telecom providers with a combination of fibre and copper distribution networks.

Required infrastructure

Telecoms distribution is expected to be offered by a combination of providers offering fibre and copper infrastructure. Distribution will be provided from adjacent cabling and joint boxes to serve development areas. Telecom removal works or protection measures may be required as part of the site remediation process. The extent of the works required will be established when the masterplan is developed and consultation with the telecom providers are initiated. We envisage that the existing networks within the development areas will be decommissioned as the development proceeds. New networks will be constructed to supply the proposed development within the development highway network.

Zone 2 Canary Wharf is likely to require 'continuity of supply' for new infrastructure. This ensures that required supplies are maintained in the event of any outages. At this stage of the investigations, we have not made allowance for any additional cost associated with extra supplies, as it is down the discretion of developer as to whether these supplies are required.

How can infrastructure be paid for?

Telecoms costs have not been allowed for, because these are invariably privately funded through an agreement between the provider and individual developers.

Hence, there will be no likely effects on public spending or on development viability, unless a decision was taken to make an exceptional level of provision – but this is outside of the scope of this study.

Telecom providers will normally require developers to excavate and lay the necessary ducts and joint boxes, which would be provided through normal costs assumptions on the part of developers. In the case of Openreach, they will provide them free of charge, and construct the necessary chambers as part of the general highway construction works. All other works are typically undertaken by Openreach at their expense, provided each individual connection does not exceed £3,400. In urban areas, this connection cost is highly unlikely to be exceeded.

Indeed, for larger residential developments, it is sometimes possible to negotiate for the telecoms provider to pay the developer per dwelling connected and this should be reviewed further by developers.

Commercial users requiring super-fast broadband speeds will be responsible for procuring their own connections from the telecommunications providers. This will be provided via newly installed duct networks.

It is likely that the developers will receive a payment from the telecom providers on a plot (residential) basis once the telecommunications duct network has been formally adopted by the telecommunications provider

Notes, issues and recommendations

It is likely that the development areas will be supplied from localised existing fibre or copper telecoms infrastructure, with new supply feeds to each area where required. The key factor will be the timely dialogue with Openreach so that works can be planned and implemented well in advance. The provision of thousands of new lines will require planning and implementation that will span years rather than months. Smart Cities infrastructure work may require particularly high grade connections, and it could be helpful to review progress at other areas of London (notably, Old Oak) to explore whether Isle of Dogs could be used for pilot schemes. These schemes can be expected to be provided by telecoms companies rather than representing a charge on the public sector or developers.

Potable water																										
Strategic Infrastructure																										
Project name		Installation of new Distribution Water Mains																								
Project ref		UPWD1																								
About the project		<div>1) critical enabling</div> <div>Thames Water</div> <div></div>																								
What priority?																										
Which lead organisation?																										
Project delivery risk																										
Strategic/zone specific? Which zone?		Strategic cross-site																								
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth st																										
Project details for this scenario																										
Gross cost (£000s)		4,500	2,250	2,250																						
Cost attrib. to South Poplar (with PP) (£000s)		360	180	180																						
Cost attrib. to South Poplar (Potential Growth) (£000s)		-																								
Cost attrib. to Canary Wharf (with PP) (£000s)		360	180	180																						
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		-																								
Cost attrib. to South Quay (with PP) (£000s)		360	180	180																						
Cost attrib. to South Quay (Potential Growth) (£000s)		-																								
Cost attrib. to Crossharbour (with PP) (£000s)		360	180	180																						
Cost attrib. to Crossharbour (Potential Growth) (£000s)		-																								
Cost attrib. to Island Gardens (with PP) (£000s)		360	180	180																						
Cost attrib. to Island Gardens (Potential Growth) (£000s)		-																								
Cost attrib. to other (£000s)		2,700																								
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)																										
Developer delivery (£000s)		1,800	900	900																						
Other funding sought (£000s)																										
Medium growt																										
Project details for this scenario																										
Gross cost (£000s)		4,500	2,250	2,250																						
Cost attrib. to South Poplar (with PP) (£000s)		360	180	180																						
Cost attrib. to South Poplar (Potential Growth) (£000s)		-																								
Cost attrib. to Canary Wharf (with PP) (£000s)		360	180	180																						
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		-																								
Cost attrib. to South Quay (with PP) (£000s)		360	180	180																						
Cost attrib. to South Quay (Potential Growth) (£000s)		-																								
Cost attrib. to Crossharbour (with PP) (£000s)		360	180	180																						
Cost attrib. to Crossharbour (Potential Growth) (£000s)		-																								
Cost attrib. to Island Gardens (with PP) (£000s)		360	180	180																						
Cost attrib. to Island Gardens (Potential Growth) (£000s)		-																								
Cost attrib. to other (£000s)		2,700																								
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)																										
Developer delivery (£000s)		1,800	900	900																						
Other funding sought (£000s)																										
Low growth																										
Project details for this scenario																										
Gross cost (£000s)		4,500	2,250	2,250																						
z1 South Poplar (% of gross cost attributable)																										
z2 Canary Wharf (% of gross cost)																										
z3 South Quay (% of gross cost)																										
z4 Crossharbour (% of gross cost)																										
z5 Island Gardens (% of gross cost)																										
Outside DIPs area (% of gross cost)																										
Cost attrib. to South Poplar (with PP) (£000s)		360	180	180																						
Cost attrib. to South Poplar (Potential Growth) (£000s)		-																								
Cost attrib. to Canary Wharf (with PP) (£000s)		360	180	180																						
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		-																								
Cost attrib. to South Quay (with PP) (£000s)		360	180	180																						
Cost attrib. to South Quay (Potential Growth) (£000s)		-																								
Cost attrib. to Crossharbour (with PP) (£000s)		360	180	180																						
Cost attrib. to Crossharbour (Potential Growth) (£000s)		-																								
Cost attrib. to Island Gardens (with PP) (£000s)		360	180	180																						
Cost attrib. to Island Gardens (Potential Growth) (£000s)		-																								
Cost attrib. to other (£000s)		2,700																								
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)																										
Developer delivery (£000s)		1,800	900																							

Sewers, Drains, SUDs

What infrastructure is needed?

Thames Water (TW) is responsible for the foul water sewer network, maintenance and treatment / disposal of foul sewage. Initial consultations have been made with TW regarding the provision of foul sewerage for the proposed development, but Thames Water heavily caveat their inputs to this study. Thames Water (TW) has confirmed that no large scale study into the overall impact of the potential demand has been carried out to date. They have advised that the network should be able to cope with the near future development. However, the emerging risk is the impact of surface water flows into the combined network. A holistic approach to dealing with all surface water flows needs to be developed to help mitigate major waste water reinforcement in the area. TW state that there is a need to undertake separate detailed modelling (a “network study”). This modelling will identify what if any spare capacity exists in the local catchments to facilitate early occupation ahead of upgrades.

TW state that the area is served by a combined sewer network, conveying both foul and surface water sewage. This means that during heavy rainfall, there is less capacity is available in the combined sewer for foul flows, so increasing flood risk from both surface water and sewers. If surface water could be redirected away from the foul sewerage system, then significant capacity in the foul system could be opened up, meaning that the foul system may not need to be upgraded to cope with planned growth. TW has also advised that their preferred policy to facilitate the proposed growth will be to configure new networks, ensuring that all Surface Water is routed away from combined sewers and is taken to docks or the River Thames. In an existing network, this could be difficult,

so the right approach would be to seek to determine the location of the major or significant surface water flows were, and see if they could be re-directed to an outfall in the Thames. This would create additional capacity in the foul network – but only in the section downstream of where the surface water flow had been removed from. Hence the search area for the new developments would be to seek significant surface water connections that could be diverted that were *upstream* of where the proposed foul sewer connection occurred from the development.

The London Plan requires SUDs to reduce surface water flows. The new development areas would all have to comply with SUDs, i.e. deal with surface water run off at greenfield rates, attenuated to the same outfall as is currently the case. In many instances, this will be into the foul sewer system which has capacity difficulties. In these instances sites may have to find, and gain approval for, wholly new surface water outfalls. This could be time consuming, and difficult in terms of land control and getting approval to the outfall into the river.

A wide range of sustainable drainage techniques are possible alongside this. A number of measures could be introduced to improve integrated drainage.

The use of a strategic rainwater harvesting system across the redevelopment area would capture rainwater and reduce surface water discharges and potentially could also lead to reduced water demand and ultimately operational cost savings across the sites. Greywater harvesting costs have been built into build costs; green roofs and brown roofs will further reduce rainwater discharge; an new landscaping and public/private spaces should be designed to infiltrate and absorb rainwater wherever possible.

Once the separated surface water system is in place, and all reasonable measures to limit the volume and rate of discharge have been designed into the developments, opportunities to direct the discharge to the watercourses or Docks can be explored.

How can infrastructure be paid for?

Run-off reduction will be paid for by individual developers as part of their typical build costs so separate costs do not appear here. The sensible approach to on-site storage this is that each developer deals with the issue locally within their site boundary or on other land under their control.

Alterations to drainage design would need to be incorporated into individual developers’ designs, and so would be dealt with by developers as part of their typical build costs. Therefore separate costs do not appear here. Joint work would need co-ordination.

TW generally requires extensions to and reinforcement of the foul water sewerage network to be funded by the proposed development so separate costs do not appear here. It is assumed that the cost of the infrastructure will be pro-rata'd between the relevant developers. The sewer network upgrades could be requisitioned from Thames Water via Section 98 of The Water Industry Act 1991. This would reduce the costs liable to the developer.

Grey water harvesting costs have been built into build costs, so separate costs do not appear here.

Some systemic works may be covered by the water industry. Without the network study, we do not know what these costs are. With sufficient notice, systemic works may be delivered via the 5-year AMP cycle. Any charges to be met by the developer will be determined via a Section 98 agreement under the Water Industry Act (duty to comply with sewer requisition). Again as with the Section 41, there are two payment mechanisms for meeting any financial obligation to be met by the developer (i.e., a capital contribution and a requisition arrangement). Once TW get greater certainty about development (such as inclusion in a Local Plan/ planning approval) then this information will help support any future investment submission to the OFWAT regulator.

Notes, issues and recommendations

As set out in the above, TW state that there is a need to undertake detailed modelling. Thames Water has advised that a combined potable water and foul network modelling exercise will cost approximately £75,000 to undertake. They have asked for a portion of it to be funded internally by Thames Water, and suggest a public sector contribution of £25,000 as a starting point for negotiation. Further consultation with Thames Water is recommended in order to progress the network modelling exercise.

As plans mature, there will need to be discussions with Thames Water re build over agreements, diversions, and inset agreements.

Developers may need to explore the possibilities offered by onsite treatment and grey/green water recycling.

Further consideration and investigation of SUDs could be made.

Waste

Recycling

Project name	Improving existing municipal waste management facilities - Recycling/ Reuse Centre
Project ref	W2
About the project	Enhancements and improvements to existing facilities at Yabsley Street- funding sought from developments
What priority?	3) high priority
Which lead organisation?	LBTH
Project delivery risk	
Strategic/zone specific? Which zone?	Strategic cross-site

Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario	Project details for this scenario																									
	Gross cost (£000s)	4,000	207	207	207	207	218	218	218	218	218	167	167	167	167	167	118	118	118	118	118	90	90	90	90	90
	Cost attrib. to South Poplar (with PP) (£000s)	196	26	26	26	26	13	13	13	13	13															
	Cost attrib. to South Poplar (Potential Growth) (£000s)	567					12	12	12	12	12	52	52	52	52	52	27	27	27	27	27	22	22	22	22	22
	Cost attrib. to Canary Wharf (with PP) (£000s)	614	69	69	69	69	54	54	54	54	54															
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	292					9	9	9	9	9	38	38	38	38	38	12	12	12	12	12					
	Cost attrib. to South Quay (with PP) (£000s)	487	57	57	57	57	40	40	40	40	40															
	Cost attrib. to South Quay (Potential Growth) (£000s)	595					27	27	27	27	27	54	54	54	54	54	23	23	23	23	23	15	15	15	15	15
	Cost attrib. to Crossharbour (with PP) (£000s)	275	50	50	50	50	5	5	5	5	5															
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	908					52	52	52	52	52	23	23	23	23	23	55	55	55	55	55	52	52	52	52	52
	Cost attrib. to Island Gardens (with PP) (£000s)	26	5	5	5	5																				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	39					5	5	5	5	5						2	2	2	2	2	2	2	2	2	2
	Cost attrib. to other (£000s)	-																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)	4,000	207	207	207	207	218	218	218	218	218	167	167	167	167	167	118	118	118	118	118	90	90	90	90	90
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario	Project details for this scenario																									
	Gross cost (£000s)	4,000	278	278	278	278	247	247	247	247	247	160	160	160	160	160	69	69	69	69	69	47	47	47	47	47
	Cost attrib. to South Poplar (with PP) (£000s)	262	35	35	35	35	18	18	18	18	18															
	Cost attrib. to South Poplar (Potential Growth) (£000s)	359					10	10	10	10	10	44	44	44	44	44	9	9	9	9	9	9	9	9	9	9
	Cost attrib. to Canary Wharf (with PP) (£000s)	824	92	92	92	92	73	73	73	73	73															
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	240										48	48	48	48	48										
	Cost attrib. to South Quay (with PP) (£000s)	653	77	77	77	77	54	54	54	54	54															
	Cost attrib. to South Quay (Potential Growth) (£000s)	557					30	30	30	30	30	49	49	49	49	49	28	28	28	28	28	5	5	5	5	5
	Cost attrib. to Crossharbour (with PP) (£000s)	368	67	67	67	67	6	6	6	6	6															
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	671					52	52	52	52	52	19	19	19	19	19	32	32	32	32	32	32	32	32	32	32
	Cost attrib. to Island Gardens (with PP) (£000s)	35	7	7	7	7																				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	31					5	5	5	5	5						1	1	1	1	1	1	1	1	1	1
	Cost attrib. to other (£000s)	-																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)	4,000	278	278	278	278	247	247	247	247	247	160	160	160	160	160	69	69	69	69	69	47	47	47	47	47
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth scenario	Project details for this scenario																									
	Gross cost (£000s)	4000	278	278	278	278	247	247	247	247	247	160	160	160	160	160	69	69	69	69	69	47	47	47	47	47
	Cost attrib. to South Poplar (with PP) (£000s)	262	35	35	35	35	18	18	18	18	18															
	Cost attrib. to South Poplar (Potential Growth) (£000s)	359					10	10	10	10	10	44	44	44	44	44	9	9	9	9	9	9	9	9	9	9
	Cost attrib. to Canary Wharf (with PP) (£000s)	824	92	92	92	92	73	73	73	73	73															
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	240										48	48	48	48	48										
	Cost attrib. to South Quay (with PP) (£000s)	653	77	77	77	77	54	54	54	54	54															
	Cost attrib. to South Quay (Potential Growth) (£000s)	557					30	30	30	30	30	49	49	49	49	49	28	28	28	28	28	5	5	5	5	5
	Cost attrib. to Crossharbour (with PP) (£000s)	368	67	67	67	67	6	6	6	6	6															
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	671					52	52	52	52	52	19	19	19	19	19	32	32	32	32	32	32	32	32	32	32
	Cost attrib. to Island Gardens (with PP) (£000s)	35	7	7	7	7																				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	31					5	5	5	5	5						1	1	1	1	1	1	1	1	1	1
	Cost attrib. to other (£000s)																									
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)	4000	278	278	278	278	247	247	247	247	247	160	160	160	160	160	69	69	69	69	69	47	47	47	47	47
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									

CHP and Heat Network

What infrastructure is needed?

For the Heat Network appraisal of the Isle of Dogs Development Infrastructure Funding Study (DIFS), we have worked under the GLA Zonal Plan (South Poplar, Canary Warf, South Quay, Cross Harbour, Island Gardens). The provision of a heat network is as per the GLA Policy within Chapter 5 of the London Plan which requires developers to prioritise connection to existing or planned decentralised energy networks where feasible or develop their own site wide community heating system supplied by gas fired boilers and CHP. There is an existing heat network within the DIFS opportunity area, Barkantine, which sits within Zone 4 (Crossharbour).

The heat network infrastructure has been assumed to comprise 3 elements. The internal infrastructure has not been apportioned for as this is already accounted for within the developer costs.

HN01) Energy Centre

HN02) Primary Heat Pipework

HN03) Primary Heat Substations

Development assumptions

A high level cost estimate has been made for the above infrastructure elements across the two growth scenarios. There are existing and planned heat networks within the study area and since some of the lower density sites (within Island Gardens) are unlikely to be suitable for DHN connection. Therefore, these growth scenarios were reduced appropriately across the dwelling numbers, as agreed with Jonathan Taylor at LBTH on 03/03/2017 and 10/03/2017. This dwelling reduction is based upon the removal of sites with existing/proposed self-provision (sites 1, 2,24,25), the removal of sites within Islands Gardens which are not geographically applicable (sites 50,53,56) and a 50% dwelling reduction of sites to be included within the existing Barkantine Heat Network extension (sites 12,15,18,19,47, 87). The High Growth scenario has seen a dwelling reduction of 7,268. The Medium Growth scenario has seen a dwelling reduction of 7,161.

Heat network demand/Cost assumptions

General:

- The heat network demand/cost assumptions have been calculated based on the projected residential development only. The residential development makes up the majority of the DIFS development overall. Furthermore, commercial development may not necessarily be heated through a ‘wet’ district heating system but instead electrically driven and therefore not DH compatible.

- Costs for the development have been set at 15% prelims plus 10% contingency (Steve Hobbs from G&T as well as PBA experience)

- The gross cost £/kW equates to the net construction cost

- £/MW has been established based upon the assessment of the Costs, Performance, and Characteristics of UK Heat Networks 9DECC (2015) Table 8)

- £/kW is based up PBA experience

HN01) Energy Centre – The energy centre sizing has been based on kW/dwelling (Heat networks: Code of Practice for the UK, CP1 2015).

HN02) Primary Heat Pipework – The length of pipe required is unknown at this stage. Therefore, heat pipe costs are assumed to be £600/per dwelling on average/typical based on PBA experience.

HN03) Primary Heat Substations - Substation sizing is based upon kW/dwelling plus 10% (Eneteq)

How can infrastructure be paid for?

It has been assumed that the developer will fund the network however the internal infrastructure has not been apportioned for as this is already accounted for within the individual site developer costs. We have been instructed to include CHP within the developers' build costs as it is a development plan requirement. It may be that in future years, developers could secure an income by leasing or selling the CHP infrastructure to a MUSCO or an ESCO who would then be able use the infrastructure to create an income for themselves. However, by adopting the approach of including the upfront costs within build costs, this possibility cannot be captured here.

Notes, issues and recommendations

Other key assumptions:

- No (gas) re-enforcement included but, based on the current development assumptions, this would not be required.

- Assume gas CHP energy centre with gas boiler back up

- No allowance for (physical) private electric wire which may or may not be part of CHP scheme

- Demand based on residential/dwelling elements only. No allowance for commercial elements have been made as residential demand will make up the majority of total heat demand/load.

- Dwelling numbers utilised are based upon the reduced trajectory (of trajectory version 15) which the method for was agreed with by Jonathan Taylor at LBTH on 03/03/2017 and 10/03/2017. these growth scenarios were reduced appropriately across the dwelling numbers, as agreed with Jonathan Taylor at LBTH on 03/03/2017 and 10/03/2017. This dwelling reduction is based upon the removal of sites with existing/proposed self-provision (sites 1, 2,24,25), the removal of sites within Islands Gardens which are not geographically applicable (sites 50,53,56) and a 50% dwelling reduction of sites to be included within the existing Barkantine Heat Network extension (sites 12,15,18,19,47, 87). The High Growth scenario has seen a dwelling reduction of 7,268. The Medium Growth scenario has seen a dwelling reduction of 7,161.

- Peak loads have been based upon diversified loads using CIBSE Heat networks: Code of Practice for the UK CP1 2015. Assessed a 1.8kW peak heat demand per dwelling for energy centre sizing.

- Heat pipe costs assumed to be £600/per dwelling based on average/typical based on PBA experience. Only dwellings/residential has been looked at to determine heat network requirements.

- Costs have been set at 15% prelims plus 10% contingency (Steve Hobbs from G&T as well as PBA experience)

- Secondary/internal pipework/HIUs costs are EXCLUDED (nothing beyond primary heat substations)

- Costs have been phased in line with development programme. In practice some of the heat infrastructure costs (energy centre, pipework) may be delivered in advance of development built out and connection so timings should be reviewed once further details are known.

Transport

- 4.75 We have identified transport infrastructure costs of between £574m (low growth scenario) and £656m (maximum growth scenario). The transport projects are separated into several main themes: strategic connections, local connections and public realm improvements, bridging options and river transport.

Local connections and transport

What infrastructure is needed?

- 4.76 Transport infrastructure is essential to unlock the opportunities for the delivery of development in the Isle of Dogs and South Poplar area.
- 4.77 The study area is a peninsular formed by a meander in the River Thames. The predominant highway link to the area is to the north in the east-west direction, formed of A13 East India Dock Road and A1261 Aspen Way. Canary Wharf is situated just south of A1261 Aspen Way and this forms a central transport hub with access to the DLR, Jubilee line and the upcoming Elizabeth line. The area south of Canary Wharf however, namely the South Quay, Crossharbour and Island Garden zones are segregated by the old network of docks which provides a severance to the wider area.
- 4.78 Given that a significant proportion of the development sites are clustered around the Canary Wharf area, as well as the transport connections, the key interventions are those that improve the local connectivity and permeability to this area, particularly from the south. The key interventions for local connectivity include:
- Aspen Road / Poplar Depot decking – enabling north south connectivity between Poplar High Street and Billingsgate.
 - South Dock Bridges – these are key to providing north south connectivity from the south to access the public transport facilities in the Canary Wharf area.
 - Bus improvements and associated highway upgrades – allowing for enhanced bus services and junction improvements to allow for better access to and from the south.
- 4.79 The infrastructure items identified in this DIFS study include DLR and Underground Station upgrades, new bridge infrastructure, river service improvements, bus infrastructure and service enhancements, road and junction improvements, as well as public realm enhancements including facilities for pedestrians and cyclists.
- 4.80 Notably the most significant infrastructure items that necessitates relatively high costs include:
- DLR improvement programme
 - Rotherhithe pedestrian and cycle bridge
 - Bus service enhancements (medium and long term)
- 4.81 The infrastructure items identified in this DIFS would benefit the connectivity of the study area to wider locations.

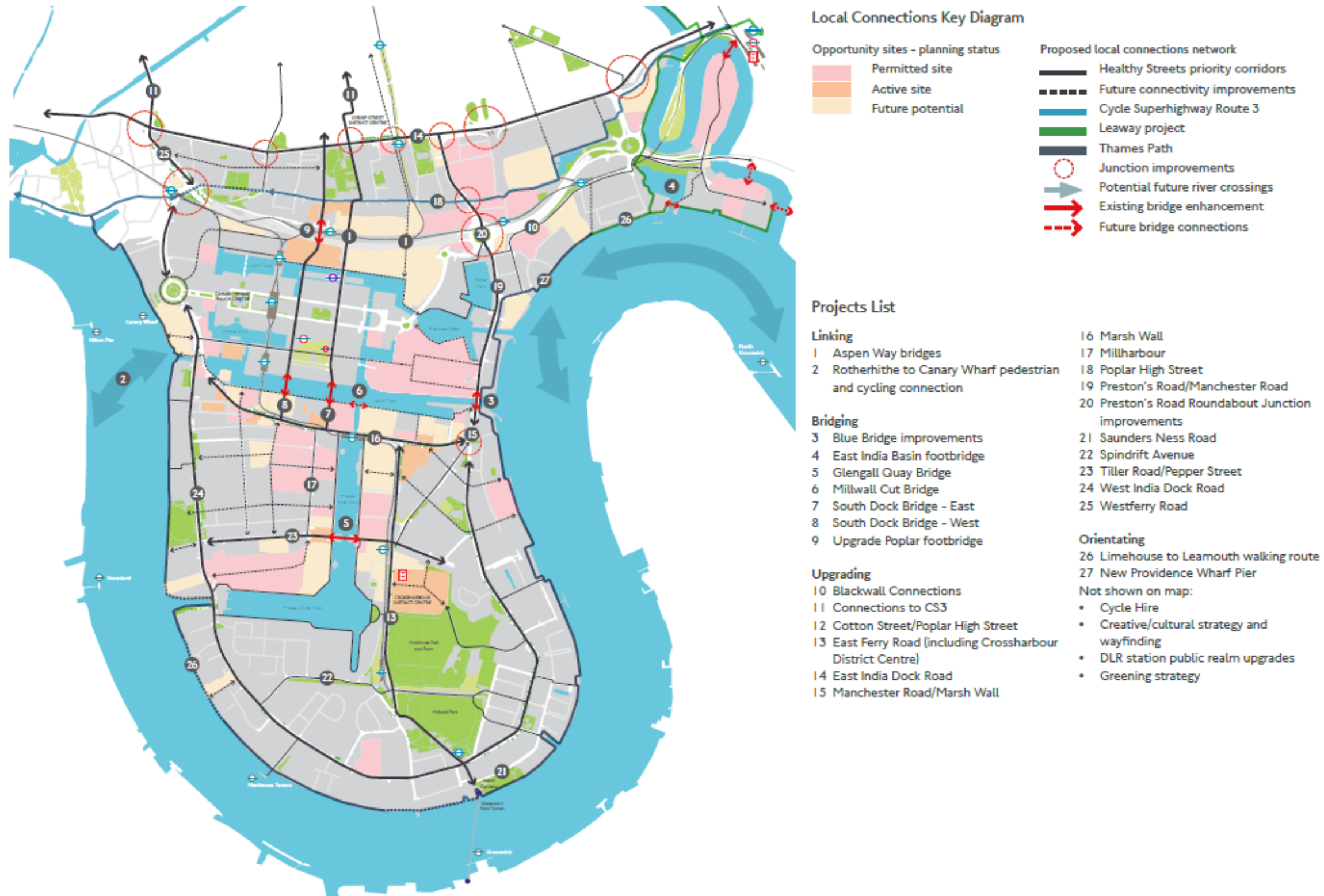
How can infrastructure be paid for?

- 4.82 Future developments in the Isle of Dogs and South Poplar area are in various stages of planning progress, where some have been granted planning permission, and others in the early stages where a planning application has not yet been submitted.
- 4.83 With the exception of Crossharbour Station, it is expected that the infrastructure items will be funded through the future developments within the local area.
- 4.84 Some developments that have been granted planning permission have allocated funding for specific infrastructure items in the vicinity. The following items are to be fully funded by such developments:
- Blackwall station - funding secured through s106
 - Preston's Road roundabout junction improvements - funding secured through s106
 - South Dock bridges - funding secured through CIL
- 4.85 The Crossharbour Station improvements are to be funded through a combination of future developments and by Transport for London as part of their Business Plan.

Notes, issues and recommendations

- 4.86 The costs for each infrastructure item is the same for all the growth scenarios, albeit a limited number of local connectivity interventions are not relevant in the lower growth scenarios. Rail-related infrastructure improvements including for the Elizabeth and Jubilee line rolling stock replacement and frequency enhancements are not included within this DIFS as this is out of scope and would be covered through Transport for London business planning. Unless it has been stated otherwise, it has been assumed that the costs are spread evenly throughout the years of its phasing. The costs relating to each of the infrastructure items will be met by the future developments within the same zone(s).
- 4.87 For infrastructure items that would benefit developments in all zones within the Isle of Dogs and South Poplar area, the cost is evenly distributed to all five zones, to be funded by the upcoming developments within these. This is applicable to the medium and long term bus service enhancements, signage and way finding improvements to Spindrift Avenue, Lime House to Leamouth walking route (Thames Path public realm upgrades), and the greening and cultural strategies.

Figure 4.5 Local connections projects in the DIFS area



Source: TfL

Local connections and transport

Strategic connections: DLR, London Underground and Rail																										
Project name		DLR improvement programme																								
Project ref		A3i																								
About the project		A programme of additional rolling stock and service frequency enhancements to increase capacity on the DLR. This programme is for the whole DLR service. Based on the network capacity of the DLR in IoDSP 42% of the total cost will be attributable to the study area. The TfL business plan would pay for all of this project.																								
What priority?		1) critical enabling																								
Which lead organisation?		TfL																								
Project delivery risk																										
Strategic/zone specific? Which zone?		Strategic cross-site																								
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario Project details for this scenario																										
Gross cost (£000s)		718000	71800	71800	71800	71800	71800	71800	71800	71800	71800															
Cost attrib. to South Poplar (with PP) (£000s)		0																								
Cost attrib. to South Poplar (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to Canary Wharf (with PP) (£000s)		0																								
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to South Quay (with PP) (£000s)		0																								
Cost attrib. to South Quay (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to Crossharbour (with PP) (£000s)		0																								
Cost attrib. to Crossharbour (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to Island Gardens (with PP) (£000s)		0																								
Cost attrib. to Island Gardens (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to other (£000s)		416440																								
Mainstream funding assumed (£000s)		301560	30156	30156	30156	30156	30156	30156	30156	30156	30156															
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (S106) (£000s)																										
CIL/S106 funding sought from developments (£000s)																										
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Medium growth scenario Project details for this scenario																										
Gross cost (£000s)		718000	71800	71800	71800	71800	71800	71800	71800	71800	71800															
Cost attrib. to South Poplar (with PP) (£000s)		0																								
Cost attrib. to South Poplar (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to Canary Wharf (with PP) (£000s)		0																								
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to South Quay (with PP) (£000s)		0																								
Cost attrib. to South Quay (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to Crossharbour (with PP) (£000s)		0																								
Cost attrib. to Crossharbour (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to Island Gardens (with PP) (£000s)		0																								
Cost attrib. to Island Gardens (Potential Growth) (£000s)		60312	6031	6031	6031	6031	6031	6031	6031	6031	6031															
Cost attrib. to other (£000s)		416440																								
Mainstream funding assumed (£000s)		301560	30156	30156	30156	30156	30156	30156	30156	30156	30156															
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (S106) (£000s)																										
CIL/S106 funding sought from developments (£000s)																										
Developer delivery (£000s)																										
Other funding sought (£000s)																										

Local connections and transport

Low growth	Project details for this scenario																									
	Gross cost (£000s)	718000	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	71800	
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	60312	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	60312	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	60312	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	60312	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	60312	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	6031	
	Cost attrib. to other (£000s)	416440																								
	Mainstream funding assumed (£000s)	301560	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	30156	
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)																									
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Project name	Crossharbour station																									
Project ref	A4i																									
About the project	Redevelopment of station, increasing capacity to accommodate demand generated by adjacent development and improving integration of the station with its surroundings, in particular the new District Centre at Crossharbour. This project is currently at feasibility stage and three options are being worked up at present ranging between £2m and £20m. TfL know that £420,000 of funding has been secured through s106/CIL. £5m is assumed from TfL's business development plan, and the remaining is sought through S106/CIL.																									
What priority?	1) critical enabling																									
Which lead organisation?	TfL																									
Project delivery risk	<div></div>																									
Strategic/zone specific? Which zone?	z4 Crossharbour																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth sc	Project details for this scenario																									
	Gross cost (£000s)	10000				2000	2000	2000	2000	2000																
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	420				84	84	84	84	84																
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	9580				1916	1916	1916	1916	1916																
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)	5000				1000	1000	1000	1000	1000																
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)	420				84	84	84	84	84																
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)	4580				916	916	916	916	916																
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									

Local connections and transport

Medium growth Project details for this scenario

Gross cost (£000s)	10000	2000	2000	2000	2000	2000
Cost attrib. to South Poplar (with PP) (£000s)	0					
Cost attrib. to South Poplar (Potential Growth) (£000s)	0					
Cost attrib. to Canary Wharf (with PP) (£000s)	0					
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0					
Cost attrib. to South Quay (with PP) (£000s)	0					
Cost attrib. to South Quay (Potential Growth) (£000s)	0					
Cost attrib. to Crossharbour (with PP) (£000s)	420	84	84	84	84	84
Cost attrib. to Crossharbour (Potential Growth) (£000s)	9580	1916	1916	1916	1916	1916
Cost attrib. to Island Gardens (with PP) (£000s)	0					
Cost attrib. to Island Gardens (Potential Growth) (£000s)	0					
Cost attrib. to other (£000s)	0					
Mainstream funding assumed (£000s)	5000	1000	1000	1000	1000	1000
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)						
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)						
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)						
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)	420	84	84	84	84	84
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)						
Unallocated dev. contrib. agreed (£106) (£000s)						
CIL/£106 funding sought from developments (£000s)	4580	916	916	916	916	916
Developer delivery (£000s)						
Other funding sought (£000s)						

Low growth Project details for this scenario

Gross cost (£000s)	10000	2000	2000	2000	2000	2000
Cost attrib. to South Poplar (with PP) (£000s)						
Cost attrib. to South Poplar (Potential Growth) (£000s)						
Cost attrib. to Canary Wharf (with PP) (£000s)						
Cost attrib. to Canary Wharf (Potential Growth) (£000s)						
Cost attrib. to South Quay (with PP) (£000s)						
Cost attrib. to South Quay (Potential Growth) (£000s)						
Cost attrib. to Crossharbour (with PP) (£000s)	420	84	84	84	84	84
Cost attrib. to Crossharbour (Potential Growth) (£000s)	9580	1916	1916	1916	1916	1916
Cost attrib. to Island Gardens (with PP) (£000s)						
Cost attrib. to Island Gardens (Potential Growth) (£000s)						
Cost attrib. to other (£000s)						
Mainstream funding assumed (£000s)	5000	1000	1000	1000	1000	1000
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)						
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)						
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)						
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)	420	84	84	84	84	84
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)						
Unallocated dev. contrib. agreed (£106) (£000s)						
CIL/£106 funding sought from developments (£000s)	4580	916	916	916	916	916
Developer delivery (£000s)						
Other funding sought (£000s)						

Local connections and transport

Project name	Poplar Station (East)																									
Project ref	A4iii																									
About the project																										
What priority?	4) desirable																									
Which lead organisation?	Multiple																									
Project delivery risk																										
Strategic/zone specific? Which zone?	Strategic cross-site																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario	Project details for this scenario																									
	Gross cost (£000s)	10000						2500	2500	2500	2500															
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	5000						1250	1250	1250	1250															
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	5000						1250	1250	1250	1250															
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	10000						2500	2500	2500	2500															
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario	Project details for this scenario																									
	Gross cost (£000s)	10000						2500	2500	2500	2500															
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	5000						1250	1250	1250	1250															
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	5000						1250	1250	1250	1250															
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	10000						2500	2500	2500	2500															
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth scenario	Project details for this scenario																									
	Gross cost (£000s)	10000						2500	2500	2500	2500															
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	5000						1250	1250	1250	1250															
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	5000						1250	1250	1250	1250															
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								

Local connections and transport

		Mainstream funding assumed (£000s)																									
		Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
		Unallocated dev. contrib. agreed (£106) (£000s)																									
		CIL/£106 funding sought from developments (£000s)																									
		Developer delivery (£000s)																									
		Other funding sought (£000s)																									
Project name		Island Gardens Station																									
Project ref		A4iv																									
About the project		Improvements to the station proposed after the end of the current CGL Concession in 2021. Station deep clean and new lifts.																									
What priority?		4) desirable																									
Which lead organisation?		TfL																									
Project delivery risk																											
Strategic/zone specific? Which zone?		z5 Island Gardens																									
Scenario		Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario		Project details for this scenario																									
		Gross cost (£000s)	2000		200	900	900																				
		Cost attrib. to South Poplar (with PP) (£000s)	0																								
		Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
		Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
		Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
		Cost attrib. to South Quay (with PP) (£000s)	0																								
		Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
		Cost attrib. to Crossharbour (with PP) (£000s)	0																								
		Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
		Cost attrib. to Island Gardens (with PP) (£000s)	0																								
		Cost attrib. to Island Gardens (Potential Growth) (£000s)	2000		200	900	900																				
		Cost attrib. to other (£000s)	0																								
		Mainstream funding assumed (£000s)																									
		Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
		Unallocated dev. contrib. agreed (£106) (£000s)																									
		CIL/£106 funding sought from developments (£000s)																									
		Developer delivery (£000s)																									
		Other funding sought (£000s)																									
Medium growth scenario		Project details for this scenario																									
		Gross cost (£000s)	2000		200	900	900																				
		Cost attrib. to South Poplar (with PP) (£000s)	0																								
		Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
		Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
		Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
		Cost attrib. to South Quay (with PP) (£000s)	0																								
		Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
		Cost attrib. to Crossharbour (with PP) (£000s)	0																								
		Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
		Cost attrib. to Island Gardens (with PP) (£000s)	0																								
		Cost attrib. to Island Gardens (Potential Growth) (£000s)	2000		200	900	900																				
		Cost attrib. to other (£000s)	0																								
		Mainstream funding assumed (£000s)																									
		Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
		Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
		Unallocated dev. contrib. agreed (£106) (£000s)																									
		CIL/£106 funding sought from developments (£000s)																									
		Developer delivery (£000s)																									
		Other funding sought (£000s)																									

Local connections and transport

Low growth	Project details for this scenario																									
	Gross cost (£000s)	2000	200		900		900																			
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	2000	200		900		900																			
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)		2000	200		900		900																		
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Project name		Blackwall Station																								
Project ref		A4v																								
About the project		Station improvements including additional stair capacity at Blackwall station and public realm upgrades.																								
What priority?		3) high priority																								
Which lead organisation?		TRL																								
Project delivery risk		<div></div>																								
Strategic/zone specific? Which zone?		z1 South Poplar																								
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario																										
Project details for this scenario																										
Gross cost (£000s)		4000																								
Cost attrib. to South Poplar (with PP) (£000s)		2000																								
Cost attrib. to South Poplar (Potential Growth) (£000s)		2000																								
Cost attrib. to Canary Wharf (with PP) (£000s)		0																								
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																								
Cost attrib. to South Quay (with PP) (£000s)		0																								
Cost attrib. to South Quay (Potential Growth) (£000s)		0																								
Cost attrib. to Crossharbour (with PP) (£000s)		0																								
Cost attrib. to Crossharbour (Potential Growth) (£000s)		0																								
Cost attrib. to Island Gardens (with PP) (£000s)		0																								
Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																								
Cost attrib. to other (£000s)		0																								
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000 4000)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)																										
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Medium growth scenario																										
Project details for this scenario																										
Gross cost (£000s)		4000																								
z1 South Poplar (% of gross cost)																										
z2 Canary Wharf (% of gross cost)																										
z3 South Quay (% of gross cost)																										
z4 Crossharbour (% of gross cost)																										
z5 Island Gardens (% of gross cost)																										
Outside DIFS area (% of gross cost)																										
Cost attrib. to South Poplar (with PP) (£000s)		2000																								
Cost attrib. to South Poplar (Potential Growth) (£000s)		2000																								
Cost attrib. to Canary Wharf (with PP) (£000s)		0																								
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																								
Cost attrib. to South Quay (with PP) (£000s)		0																								
Cost attrib. to South Quay (Potential Growth) (£000s)		0																								
Cost attrib. to Crossharbour (with PP) (£000s)		0																								
Cost attrib. to Crossharbour (Potential Growth) (£000s)		0																								
Cost attrib. to Island Gardens (with PP) (£000s)		0																								
Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																								
Cost attrib. to other (£000s)		0																								

Local connections and transport

[illegible]

Local connections and transport

Medium growth	Project details for this scenario	Two land bridges assumed						
	Gross cost (£000s)	25300	3614	3614	3614	3614	3614	3614
	z1 South Poplar (% of gross cost)							
	z2 Canary Wharf (% of gross cost)							
	z3 South Quay (% of gross cost)							
	z4 Crossharbour (% of gross cost)							
	z5 Island Gardens (% of gross cost)							
	Outside DIFS area (% of gross cost)							
	Cost attrib. to South Poplar (with PP) (£000s)	0						
	Cost attrib. to South Poplar (Potential Growth) (£000s)	25300	3614	3614	3614	3614	3614	3614
	Cost attrib. to Canary Wharf (with PP) (£000s)	0						
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0						
	Cost attrib. to South Quay (with PP) (£000s)	0						
	Cost attrib. to South Quay (Potential Growth) (£000s)	0						
	Cost attrib. to Crossharbour (with PP) (£000s)	0						
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0						
	Cost attrib. to Island Gardens (with PP) (£000s)	0						
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0						
	Cost attrib. to other (£000s)	0						
	Mainstream funding assumed (£000s)							
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)							
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)							
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)							
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)							
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)							
	Unallocated dev. contrib. agreed (£106) (£000s)							
	CIL/£106 funding sought from developments (£000s)	25300	3614	3614	3614	3614	3614	3614
	Developer delivery (£000s)							
	Other funding sought (£000s)							
Low growth	Project details for this scenario	One land bridge assumed						
	Gross cost (£000s)	12650	1807	1807	1807	1807	1807	1807
	Cost attrib. to South Poplar (with PP) (£000s)	0						
	Cost attrib. to South Poplar (Potential Growth) (£000s)	12650	1807	1807	1807	1807	1807	1807
	Cost attrib. to Canary Wharf (with PP) (£000s)	0						
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0						
	Cost attrib. to South Quay (with PP) (£000s)	0						
	Cost attrib. to South Quay (Potential Growth) (£000s)	0						
	Cost attrib. to Crossharbour (with PP) (£000s)	0						
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0						
	Cost attrib. to Island Gardens (with PP) (£000s)	0						
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0						
	Cost attrib. to other (£000s)	0						
	Mainstream funding assumed (£000s)							
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)							
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)							
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)							
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)							
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)							
	Unallocated dev. contrib. agreed (£106) (£000s)							
	CIL/£106 funding sought from developments (£000s)	12650	1807	1807	1807	1807	1807	1807
	Developer delivery (£000s)							
	Other funding sought (£000s)							

Local connections and transport

Local connections, including multimodal links and public realm																										
Project name		Further bus service enhancements - medium term																								
Project ref		C1ii																								
About the project		Continued development of the bus network and services to support growth in the OA in the medium term. This could include increases in services, together with other capacity increases on routes, as well as the potential for new routes to serve the area. Suitable bus priority will be needed to support																								
What priority?		1) critical enabling																								
Which lead organisation?		TfL and Developer																								
Project delivery risk																										
Strategic/zone specific? Which zone?		Strategic cross-site																								
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario - Project details for this scenario																										
	Gross cost (£000s)	11050				2210	2210	2210	2210	2210																
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	11050				2210	2210	2210	2210	2210																
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario - Project details for this scenario																										
	Gross cost (£000s)	11050				2210	2210	2210	2210	2210																
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	2210				442	442	442	442	442																
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	11050				2210	2210	2210	2210	2210																
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth	Project details for this scenario	Not required in low growth scenario																								

Local connections and transport

Project name	Further bus service enhancement - long term																									
Project ref	C1iv																									
About the project	Continued development of the bus network and services to support growth in the OA in the long term - only triggered by the high growth scenario. This could include further increases in services, together with other capacity increases on routes, as well as the potential for new routes to serve the area.																									
What priority?	1) critical enabling																									
Which lead organisation?	TfL and Developer																									
Project delivery risk																										
Strategic/zone specific? Which zone?	Strategic cross-site																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario Project details for this scenario																										
Gross cost (£000s)	33150										2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	
Cost attrib. to South Poplar (with PP) (£000s)	0																									
Cost attrib. to South Poplar (Potential Growth) (£000s)	6630										442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	
Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	6630										442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	
Cost attrib. to South Quay (with PP) (£000s)	0																									
Cost attrib. to South Quay (Potential Growth) (£000s)	6630										442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	
Cost attrib. to Crossharbour (with PP) (£000s)	0																									
Cost attrib. to Crossharbour (Potential Growth) (£000s)	6630										442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	
Cost attrib. to Island Gardens (with PP) (£000s)	0																									
Cost attrib. to Island Gardens (Potential Growth) (£000s)	6630										442	442	442	442	442	442	442	442	442	442	442	442	442	442	442	
Cost attrib. to other (£000s)	0																									
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)	33150										2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	2210	
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Medium growth scenario Project details for this scenario																										
Low growth scenario Project details for this scenario	Not required in medium growth scenario																									
Project name	Bus priority - Western Approach																									
Project ref	C1vi																									
About the project	Bus priority to support bus service enhancements: West India Road, Westferry Road																									
What priority?	1) critical enabling																									
Which lead organisation?	TfL and Developer																									
Project delivery risk																										
Strategic/zone specific? Which zone?	z1 South Poplar																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario Project details for this scenario																										
Gross cost (£000s)	1500				375	375	375	375																		
Cost attrib. to South Poplar (with PP) (£000s)	0																									
Cost attrib. to South Poplar (Potential Growth) (£000s)	1500				375	375	375	375																		
Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																									
Cost attrib. to South Quay (with PP) (£000s)	0																									
Cost attrib. to South Quay (Potential Growth) (£000s)	0																									
Cost attrib. to Crossharbour (with PP) (£000s)	0																									
Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																									
Cost attrib. to Island Gardens (with PP) (£000s)	0																									
Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																									
Cost attrib. to other (£000s)	0																									
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)	1500				375	375	375	375																		
Developer delivery (£000s)																										
Other funding sought (£000s)																										

Local connections and transport

Medium growth Project details for this scenario

Gross cost (£000s)	1500	375	375	375	375
Cost attrib. to South Poplar (with PP) (£000s)	0				
Cost attrib. to South Poplar (Potential Growth) (£000s)	1500	375	375	375	375
Cost attrib. to Canary Wharf (with PP) (£000s)	0				
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0				
Cost attrib. to South Quay (with PP) (£000s)	0				
Cost attrib. to South Quay (Potential Growth) (£000s)	0				
Cost attrib. to Crossharbour (with PP) (£000s)	0				
Cost attrib. to Crossharbour (Potential Growth) (£000s)	0				
Cost attrib. to Island Gardens (with PP) (£000s)	0				
Cost attrib. to Island Gardens (Potential Growth) (£000s)	0				
Cost attrib. to other (£000s)	0				
Mainstream funding assumed (£000s)					
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)					
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)					
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)					
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)					
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)					
Unallocated dev. contrib. agreed (£106) (£000s)					
CIL/£106 funding sought from developments (£000s)	1500	375	375	375	375
Developer delivery (£000s)					
Other funding sought (£000s)					

Low growth Project details for this scenario

Gross cost (£000s)	1500	375	375	375	375
Cost attrib. to South Poplar (with PP) (£000s)	0				
Cost attrib. to South Poplar (Potential Growth) (£000s)	1500	375	375	375	375
Cost attrib. to Canary Wharf (with PP) (£000s)	0				
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0				
Cost attrib. to South Quay (with PP) (£000s)	0				
Cost attrib. to South Quay (Potential Growth) (£000s)	0				
Cost attrib. to Crossharbour (with PP) (£000s)	0				
Cost attrib. to Crossharbour (Potential Growth) (£000s)	0				
Cost attrib. to Island Gardens (with PP) (£000s)	0				
Cost attrib. to Island Gardens (Potential Growth) (£000s)	0				
Cost attrib. to other (£000s)	0				
Mainstream funding assumed (£000s)					
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)					
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)					
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)					
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)					
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)					
Unallocated dev. contrib. agreed (£106) (£000s)					
CIL/£106 funding sought from developments (£000s)	1500	375	375	375	375
Developer delivery (£000s)					
Other funding sought (£000s)					

Local connections and transport

Project name	Bus priority - Eastern Approach																									
Project ref	C1vii																									
About the project	Bus priority to support bus service enhancements: Prestons Roundabout																									
What priority?	1) critical enabling																									
Which lead organisation?	TfL and Developer																									
Project delivery risk																										
Strategic/zone specific? Which zone?	z2 Canary Wharf																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario	Project details for this scenario																									
	Gross cost (£000s)	1500		750	750																					
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	1500			750	750																				
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	1500			750	750																				
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario	Project details for this scenario																									
	Gross cost (£000s)	1500		750	750																					
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	1500			750	750																				
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	1500			750	750																				
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth scenario	Project details for this scenario																									
	Gross cost (£000s)	1500		750	750																					
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	1500			750	750																				
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								

Local connections and transport

[illegible]

Local connections and transport

High growth	Project details for this scenario																											
	Gross cost (£000s)	1000																										
	Cost attrib. to South Poplar (with PP) (£000s)	0																										
	Cost attrib. to South Poplar (Potential Growth) (£000s)	1000																										
	Cost attrib. to Canary Wharf (with PP) (£000s)	0	500	500																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																										
	Cost attrib. to South Quay (with PP) (£000s)	0																										
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																										
	Cost attrib. to Crossharbour (with PP) (£000s)	0																										
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																										
	Cost attrib. to Island Gardens (with PP) (£000s)	0																										
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																										
	Cost attrib. to other (£000s)	0																										
	Mainstream funding assumed (£000s)																											
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Unallocated dev. contrib. agreed (\$106) (£000s)																											
CIL/\$106 funding sought from developments (£000s)	1000	500	500																									
Developer delivery (£000s)																												
Other funding sought (£000s)																												
Project name		Bus priority - Isle of Dogs circular																										
Project ref		C1x																										
About the project		Bus priority to support bus service enhancements: Westferry Road, Manchester Road, East Ferry Road, Marsh wall																										
What priority?		1) critical enabling																										
Which lead organisation?		TfL and Developer																										
Project delivery risk																												
Strategic/zone specific? Which zone?		Strategic cross-site																										
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042		
High growth scenario	Project details for this scenario																											
	Gross cost (£000s)	1000						250	250	250	250																	
	Cost attrib. to South Poplar (with PP) (£000s)	0																										
	Cost attrib. to South Poplar (Potential Growth) (£000s)	250						63	63	63	63																	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																										
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	250						63	63	63	63																	
	Cost attrib. to South Quay (with PP) (£000s)	0																										
	Cost attrib. to South Quay (Potential Growth) (£000s)	250						63	63	63	63																	
	Cost attrib. to Crossharbour (with PP) (£000s)	0																										
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	250						63	63	63	63																	
	Cost attrib. to Island Gardens (with PP) (£000s)	0																										
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																										
	Cost attrib. to other (£000s)	0																										
	Mainstream funding assumed (£000s)																											
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Unallocated dev. contrib. agreed (\$106) (£000s)																											
	CIL/\$106 funding sought from developments (£000s)	1000						250	250	250	250																	
	Developer delivery (£000s)																											
	Other funding sought (£000s)																											
Medium growth scenario	Project details for this scenario																											
	Gross cost (£000s)	1000						250	250	250	250																	
	Cost attrib. to South Poplar (with PP) (£000s)	0																										
	Cost attrib. to South Poplar (Potential Growth) (£000s)	250						63	63	63	63																	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																										
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	250						63	63	63	63																	
	Cost attrib. to South Quay (with PP) (£000s)	0																										
	Cost attrib. to South Quay (Potential Growth) (£000s)	250						63	63	63	63																	
	Cost attrib. to Crossharbour (with PP) (£000s)	0																										
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	250						63	63	63	63																	
	Cost attrib. to Island Gardens (with PP) (£000s)	0																										
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																										
	Cost attrib. to other (£000s)	0																										

Local connections and transport

[illegible]

Local connections and transport

Medium grow	Project details for this scenario																												
	Gross cost (£000s)	50	50																										
	Cost attrib. to South Poplar (with PP) (£000s)	0																											
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																											
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																											
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	50	50																										
	Cost attrib. to South Quay (with PP) (£000s)	0																											
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																											
	Cost attrib. to Crossharbour (with PP) (£000s)	0																											
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																											
	Cost attrib. to Island Gardens (with PP) (£000s)	0																											
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																											
	Cost attrib. to other (£000s)	0																											
	Mainstream funding assumed (£000s)																												
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																												
	Unallocated dev. contrib. agreed (£106) (£000s)																												
CIL/£106 funding sought from developments (£000s)		50																									50		
Developer delivery (£000s)																													
Other funding sought (£000s)																													
Low growth	Project details for this scenario																												
	Gross cost (£000s)	50	50																										
	Cost attrib. to South Poplar (with PP) (£000s)	0																											
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																											
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																											
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	50	50																										
	Cost attrib. to South Quay (with PP) (£000s)	0																											
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																											
	Cost attrib. to Crossharbour (with PP) (£000s)	0																											
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																											
	Cost attrib. to Island Gardens (with PP) (£000s)	0																											
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																											
	Cost attrib. to other (£000s)	0																											
	Mainstream funding assumed (£000s)																												
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																												
	Unallocated dev. contrib. agreed (£106) (£000s)																												
CIL/£106 funding sought from developments (£000s)		50																									50		
Developer delivery (£000s)																													
Other funding sought (£000s)																													
Project name		Upgrade Poplar footbridge																											
Project ref		C4																											
About the project		Work being developed as part of redevelopment of North Quay and through Crossrail obligations to understand the need for upgrades to Poplar footbridge to improve connectivity to the north into Poplar, as well as to Poplar DLR station. Details on how the footbridge is upgraded to be developed in due																											
What priority?		1) critical enabling																											
Which lead organisation?		Developer																											
Project delivery risk																													
Strategic/zone specific? Which zone?		z2 Canary Wharf																											
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042			

Local connections and transport

	Mainstream funding assumed (£000s)		
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000		
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)		
	Unallocated dev. contrib. agreed (\$106) (£000s)		
	CIL/\$106 funding sought from developments (£000s)		
	Developer delivery (£000s)	5000	2500 2500
	Other funding sought (£000s)		
Medium growth	Project details for this scenario		
	Gross cost (£000s)	5000	2500 2500
	Cost attrib. to South Poplar (with PP) (£000s)	0	
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0	
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	5000	2500 2500
	Cost attrib. to South Quay (with PP) (£000s)	0	
	Cost attrib. to South Quay (Potential Growth) (£000s)	0	
	Cost attrib. to Crossharbour (with PP) (£000s)	0	
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0	
	Cost attrib. to Island Gardens (with PP) (£000s)	0	
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0	
	Cost attrib. to other (£000s)	0	
	Mainstream funding assumed (£000s)		
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)		
	Unallocated dev. contrib. agreed (\$106) (£000s)		
	CIL/\$106 funding sought from developments (£000s)		
	Developer delivery (£000s)	5000	2500 2500
	Other funding sought (£000s)		
Low growth	Project details for this scenario		
	Gross cost (£000s)	5000	2500 2500
	Cost attrib. to South Poplar (with PP) (£000s)	0	
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0	
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	5000	2500 2500
	Cost attrib. to South Quay (with PP) (£000s)	0	
	Cost attrib. to South Quay (Potential Growth) (£000s)	0	
	Cost attrib. to Crossharbour (with PP) (£000s)	0	
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0	
	Cost attrib. to Island Gardens (with PP) (£000s)	0	
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0	
	Cost attrib. to other (£000s)	0	
	Mainstream funding assumed (£000s)		
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)		
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)		
	Unallocated dev. contrib. agreed (\$106) (£000s)		
	CIL/\$106 funding sought from developments (£000s)		
	Developer delivery (£000s)	5000	2500 2500
	Other funding sought (£000s)		

Local connections and transport

Project name	East India Dock Road																									
Project ref	C6																									
About the project	Public realm improvements and new north-south connections and support emerging development in the area. This cost is inclusive of junction improvements at: East India Dock Road/ Burdett Road and Cotton Street/East India Dock Road.																									
What priority?	2) essential mitigation																									
Which lead organisation?	TfL/Developers																									
Project delivery risk																										
Strategic/zone specific? Which zone?	z1 South Poplar																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario	Project details for this scenario																									
	Gross cost (£000s)	10000	500	500											3000	3000	3000									
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	10000	500	500											3000	3000	3000									
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	10000	500	500											3000	3000	3000									
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario	Project details for this scenario																									
	Gross cost (£000s)	10000	500	500											3000	3000	3000									
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	10000	500	500											3000	3000	3000									
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	10000	500	500											3000	3000	3000									
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth scenario	Project details for this scenario																									
	Gross cost (£000s)	10000	500	500											3000	3000	3000									
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	10000	500	500											3000	3000	3000									
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								

Local connections and transport

[illegible]

Local connections and transport

Low growth	Project details for this scenario																									
	Gross cost (£000s)	10000																								
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	10000																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (\$106) (£000s)																									
	CIL/\$106 funding sought from developments (£000s)	10000																								
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Project name	Blackwall Connections																									
Project ref	C8i																									
About the project	Public realm improvements around Cotton Street and Preston's Road. Improved walking and cycle connections through Preston's Road Roundabout to Blackwall Station and upgrades to Blackwall Way.																									
What priority?	2) essential mitigation																									
Which lead organisation?	Developer																									
Project delivery risk	<div></div>																									
Strategic/zone specific? Which zone?	z2 Canary Wharf																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario	Project details for this scenario																									
	Gross cost (£000s)	5000			2500	2500																				
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	5000																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (\$106) (£000s)																									
	CIL/\$106 funding sought from developments (£000s)	5000				2500	2500																			
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario	Project details for this scenario																									
	Gross cost (£000s)	5000			2500	2500																				
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	5000																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								

Local connections and transport

[illegible]

Local connections and transport

[illegible]

Local connections and transport					
	Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) 5000 1000 2000 2000 Developer delivery (£000s) Other funding sought (£000s)				
Medium growth	Project details for this scenario Gross cost (£000s) 5000 1000 2000 2000 Cost attrib. to South Poplar (with PP) (£000s) 0 Cost attrib. to South Poplar (Potential Growth) (£000s) 5000 1000 2000 2000 Cost attrib. to Canary Wharf (with PP) (£000s) 0 Cost attrib. to Canary Wharf (Potential Growth) (£000s) 0 Cost attrib. to South Quay (with PP) (£000s) 0 Cost attrib. to South Quay (Potential Growth) (£000s) 0 Cost attrib. to Crossharbour (with PP) (£000s) 0 Cost attrib. to Crossharbour (Potential Growth) (£000s) 0 Cost attrib. to Island Gardens (with PP) (£000s) 0 Cost attrib. to Island Gardens (Potential Growth) (£000s) 0 Cost attrib. to other (£000s) 0 Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) 5000 1000 2000 2000 Developer delivery (£000s) Other funding sought (£000s)				
Low growth	Project details for this scenario Gross cost (£000s) 5000 1000 2000 2000 Cost attrib. to South Poplar (with PP) (£000s) 0 Cost attrib. to South Poplar (Potential Growth) (£000s) 5000 1000 2000 2000 Cost attrib. to Canary Wharf (with PP) (£000s) 0 Cost attrib. to Canary Wharf (Potential Growth) (£000s) 0 Cost attrib. to South Quay (with PP) (£000s) 0 Cost attrib. to South Quay (Potential Growth) (£000s) 0 Cost attrib. to Crossharbour (with PP) (£000s) 0 Cost attrib. to Crossharbour (Potential Growth) (£000s) 0 Cost attrib. to Island Gardens (with PP) (£000s) 0 Cost attrib. to Island Gardens (Potential Growth) (£000s) 0 Cost attrib. to other (£000s) 0 Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) 5000 1000 2000 2000 Developer delivery (£000s) Other funding sought (£000s)				

Local connections and transport

Project name	Cotton Street/Poplar High Street																									
Project ref	C9ii																									
About the project	Improved facilities of pedestrians and cyclists																									
What priority?	1) critical enabling																									
Which lead organisation?	LBTH/TfL/s106																									
Project delivery risk																										
Strategic/zone specific? Which zone?	z1 South Poplar																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario	Project details for this scenario																									
	Gross cost (£000s)	5000									2500		2500													
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	5000									2500		2500													
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)	5000									2500		2500													
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario	Project details for this scenario																									
	Gross cost (£000s)	5000									2500		2500													
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	5000									2500		2500													
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (S106) (£000s)																									
	CIL/S106 funding sought from developments (£000s)	5000									2500		2500													
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth scenario	Project details for this scenario																									
	Gross cost (£000s)	5000									2500		2500													
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	5000									2500		2500													
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								

Local connections and transport

Mainstream funding assumed (£000s)																											
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (\$106) (£000s)																											
CIL/\$106 funding sought from developments (£000s)		5000																			2500	2500					
Developer delivery (£000s)																											
Other funding sought (£000s)																											
Project name		Preston's Road/Manchester Road																									
Project ref		C10i																									
About the project		Upgrades to improve public realm and provide better facilities for cyclists																									
What priority?		2) essential mitigation																									
Which lead organisation?		LBTH/LIPS/Developer																									
Project delivery risk																											
Strategic/zone specific? Which zone?		Strategic cross-site																									
Scenario	Total (£000s)	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	2035/2036	2036/2037	2037/2038	2038/2039	2039/2040	2040/2041	2041/2042	
High growth scenario	Project details for this scenario																										
	Gross cost (£000s)	3000																			1500	1500					
	Cost attrib. to South Poplar (with PP) (£000s)	0																									
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																									
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																									
	Cost attrib. to South Quay (with PP) (£000s)	0																									
	Cost attrib. to South Quay (Potential Growth) (£000s)	1500																			750	750					
	Cost attrib. to Crossharbour (with PP) (£000s)	0																									
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1500																			750	750					
	Cost attrib. to Island Gardens (with PP) (£000s)	0																									
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																									
	Cost attrib. to other (£000s)	0																									
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (\$106) (£000s)																										
	CIL/\$106 funding sought from developments (£000s)	3000																			1500	1500					
	Developer delivery (£000s)																										
	Other funding sought (£000s)																										
Medium growth scenario	Project details for this scenario																										
	Gross cost (£000s)	3000																			1500	1500					
	Cost attrib. to South Poplar (with PP) (£000s)	0																									
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																									
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																									
	Cost attrib. to South Quay (with PP) (£000s)	0																									
	Cost attrib. to South Quay (Potential Growth) (£000s)	1500																			750	750					
	Cost attrib. to Crossharbour (with PP) (£000s)	0																									
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1500																			750	750					
	Cost attrib. to Island Gardens (with PP) (£000s)	0																									
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																									
	Cost attrib. to other (£000s)	0																									
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (\$106) (£000s)																										
	CIL/\$106 funding sought from developments (£000s)	3000																			1500	1500					
	Developer delivery (£000s)																										
	Other funding sought (£000s)																										
Low growth scenario	Project details for this scenario																										
	Not required in low growth scenario																										

Local connections and transport

Project name	Blue Bridge improvements																									
Project ref	C10ii																									
About the project	Improvements to the cycle level of service on the Blue Bridge and its approaches.																									
What priority?	2) essential mitigation																									
Which lead organisation?	Developer																									
Project delivery risk	Orange																									
Strategic/zone specific? Which zone?	z3 South Quay																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario	Project details for this scenario																									
	Gross cost (£000s)	1000				1000																				
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	1000				1000																				
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	1000				1000																				
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario	Project details for this scenario																									
	Gross cost (£000s)	1000				1000																				
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	1000				1000																				
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	1000				1000																				
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth scenario	Project details for this scenario																									
	Gross cost (£000s)	1000				1000																				
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	1000				1000																				
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								

Local connections and transport

Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (\$106) (£000s)																										
CIL/\$106 funding sought from developments (£000s)		1000				1000																				
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Project name		Manchester Road/Marsh Wall																								
Project ref		C10iii																								
About the project		Junction improvement scheme to improve safety and pedestrian facilities - raising the junction and making East Ferry 1 way.																								
What priority?		1) critical enabling																								
Which lead organisation?		LBTH/TfL/s106																								
Project delivery risk																										
Strategic/zone specific? Which zone?		z2 Canary Wharf																								
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario																										
Project details for this scenario																										
Gross cost (£000s)		1000																								
Cost attrib. to South Poplar (with PP) (£000s)		0																								
Cost attrib. to South Poplar (Potential Growth) (£000s)		0																								
Cost attrib. to Canary Wharf (with PP) (£000s)		1000																								
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																								
Cost attrib. to South Quay (with PP) (£000s)		0																								
Cost attrib. to South Quay (Potential Growth) (£000s)		0																								
Cost attrib. to Crossharbour (with PP) (£000s)		0																								
Cost attrib. to Crossharbour (Potential Growth) (£000s)		0																								
Cost attrib. to Island Gardens (with PP) (£000s)		0																								
Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																								
Cost attrib. to other (£000s)		0																								
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (\$106) (£000s)																										
CIL/\$106 funding sought from developments (£000s)		1000				1000																				
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Medium growth scenario																										
Project details for this scenario																										
Gross cost (£000s)		1000				1000																				
Cost attrib. to South Poplar (with PP) (£000s)		0																								
Cost attrib. to South Poplar (Potential Growth) (£000s)		0																								
Cost attrib. to Canary Wharf (with PP) (£000s)		1000																								
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																								
Cost attrib. to South Quay (with PP) (£000s)		0																								
Cost attrib. to South Quay (Potential Growth) (£000s)		0																								
Cost attrib. to Crossharbour (with PP) (£000s)		0																								
Cost attrib. to Crossharbour (Potential Growth) (£000s)		0																								
Cost attrib. to Island Gardens (with PP) (£000s)		0																								
Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																								
Cost attrib. to other (£000s)		0																								
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (\$106) (£000s)																										
CIL/\$106 funding sought from developments (£000s)		1000				1000																				
Developer delivery (£000s)																										
Other funding sought (£000s)																										

Local connections and transport

High growth	Project details for this scenario																																									
	Gross cost (£000s)	1000	1000																																							
	Cost attrib. to South Poplar (with PP) (£000s)	0																																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	1000	1000																																							
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																																								
	Cost attrib. to South Quay (with PP) (£000s)	0																																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																																								
	Cost attrib. to other (£000s)	0																																								
	Mainstream funding assumed (£000s)																																									
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																																									
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																																									
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																																									
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																																									
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																																									
	Unallocated dev. contrib. agreed (\$106) (£000s)																																									
CIL/\$106 funding sought from developments (£000s)		1000	1000																																							
Developer delivery (£000s)																																										
Other funding sought (£000s)																																										
Project name		Marsh Wall																																								
Project ref		C11i																																								
About the project		Streetscape improvements to respond to high density development proposed along Marsh Wall. Pedestrian and cycle connections to south Dock Bridges. Proposals need to be transformational. Could include upgrades to pedestrian comfort, urban realm and potential management of vehicles using the																																								
What priority?		1) critical enabling																																								
Which lead organisation?		LBTH/Developers																																								
Project delivery risk																																										
Strategic/zone specific? Which zone?		z3 South Quay																																								
Scenario		Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042															
High growth st		Project details for this scenario																																								
		Gross cost (£000s)	20000																									5000	5000	5000	5000											
		Cost attrib. to South Poplar (with PP) (£000s)	0																																							
		Cost attrib. to South Poplar (Potential Growth) (£000s)	0																																							
		Cost attrib. to Canary Wharf (with PP) (£000s)	0																																							
		Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																																							
		Cost attrib. to South Quay (with PP) (£000s)	8400																									2100	2100	2100	2100											
		Cost attrib. to South Quay (Potential Growth) (£000s)	11600																									2900	2900	2900	2900											
		Cost attrib. to Crossharbour (with PP) (£000s)	0																																							
		Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																																							
		Cost attrib. to Island Gardens (with PP) (£000s)	0																																							
		Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																																							
		Cost attrib. to other (£000s)	0																																							
		Mainstream funding assumed (£000s)																																								
		Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																																								
		Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																																								
		Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)		226																																						
		Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																																								
		Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																																								
		Unallocated dev. contrib. agreed (\$106) (£000s)																																								
		CIL/\$106 funding sought from developments (£000s)		20000																									5000	5000	5000	5000										
		Developer delivery (£000s)																																								
		Other funding sought (£000s)																																								
Medium growth		Project details for this scenario																																								
		Gross cost (£000s)	20000																									5000	5000	5000	5000											
		Cost attrib. to South Poplar (with PP) (£000s)	0																																							
		Cost attrib. to South Poplar (Potential Growth) (£000s)	0																																							
		Cost attrib. to Canary Wharf (with PP) (£000s)	0																																							
		Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																																							
		Cost attrib. to South Quay (with PP) (£000s)	8400																									2100	2100	2100	2100											
		Cost attrib. to South Quay (Potential Growth) (£000s)	11600																									2900	2900	2900	2900											
		Cost attrib. to Crossharbour (with PP) (£000s)	0																																							
		Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																																							
		Cost attrib. to Island Gardens (with PP) (£000s)	0																																							
		Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																																							
		Cost attrib. to other (£000s)	0																																							

Local connections and transport																											
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (\$106) (£000s)																										
	CIL/\$106 funding sought from developments (£000s)		20000			5000	5000	5000	5000																		
	Developer delivery (£000s)																										
	Other funding sought (£000s)																										
Low growth	Project details for this scenario																										
	Gross cost (£000s)		20000			5000	5000	5000	5000																		
	Cost attrib. to South Poplar (with PP) (£000s)		0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)		0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)		0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																								
	Cost attrib. to South Quay (with PP) (£000s)		8400			2100	2100	2100	2100																		
	Cost attrib. to South Quay (Potential Growth) (£000s)		11600			2900	2900	2900	2900																		
	Cost attrib. to Crossharbour (with PP) (£000s)		0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)		0																								
	Cost attrib. to Island Gardens (with PP) (£000s)		0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																								
	Cost attrib. to other (£000s)		0																								
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (\$106) (£000s)																										
	CIL/\$106 funding sought from developments (£000s)		20000			5000	5000	5000	5000																		
	Developer delivery (£000s)																										
	Other funding sought (£000s)																										
Project name		South Dock Bridge - West																									
Project ref		C11ii																									
About the project		Replacement of existing Wilkinson Eyre Bridge or other bridge further west to support growth coming forward in the vicinity, together with enabling improved connectivity across South Dock. Further work to define costs, including operation costs (OC), are still required and will be undertaken as part of																									
What priority?		1) critical enabling																									
Which lead organisation?		LBTH and Delivery partners																									
Project delivery risk																											
Strategic/zone specific? Which zone?		z3 South Quay																									
Scenario		Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth sc	Project details for this scenario																										
	Gross cost (£000s)		8000							4000	4000																
	Cost attrib. to South Poplar (with PP) (£000s)		0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)		0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)		0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																								
	Cost attrib. to South Quay (with PP) (£000s)		3360							1680	1680																
	Cost attrib. to South Quay (Potential Growth) (£000s)		4640							2320	2320																
	Cost attrib. to Crossharbour (with PP) (£000s)		0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)		0																								
	Cost attrib. to Island Gardens (with PP) (£000s)		0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																								
	Cost attrib. to other (£000s)		0																								
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s) 8000																										
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (\$106) (£000s)																										
CIL/\$106 funding sought from developments (£000s)																											
Developer delivery (£000s)																											
Other funding sought (£000s)																											

Local connections and transport

Medium growth	Project details for this scenario																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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Local connections and transport

	Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s;8000) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) Developer delivery (£000s) Other funding sought (£000s)	4000	4000
Medium growth	Project details for this scenario		
	Gross cost (£000s)	8000	4000 4000
	Cost attrib. to South Poplar (with PP) (£000s)	0	
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0	
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0	
	Cost attrib. to South Quay (with PP) (£000s)	3360	1680 1680
	Cost attrib. to South Quay (Potential Growth) (£000s)	4640	2320 2320
	Cost attrib. to Crossharbour (with PP) (£000s)	0	
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0	
	Cost attrib. to Island Gardens (with PP) (£000s)	0	
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0	
	Cost attrib. to other (£000s)	0	
	Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s;8000) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) Developer delivery (£000s) Other funding sought (£000s)	4000	4000
Low growth	Project details for this scenario		
	Gross cost (£000s)	8000	4000 4000
	Cost attrib. to South Poplar (with PP) (£000s)	0	
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0	
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0	
	Cost attrib. to South Quay (with PP) (£000s)	3360	1680 1680
	Cost attrib. to South Quay (Potential Growth) (£000s)	4640	2320 2320
	Cost attrib. to Crossharbour (with PP) (£000s)	0	
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0	
	Cost attrib. to Island Gardens (with PP) (£000s)	0	
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0	
	Cost attrib. to other (£000s)	0	
	Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s;8000) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) Developer delivery (£000s) Other funding sought (£000s)	4000	4000

Local connections and transport

Project name	Millwall Cut Bridge																												
Project ref	C11v																												
About the project	New bridge to connection South Dock and Thames Quay - only required in high growth scenario																												
What priority?	4) desirable																												
Which lead organisation?	Developer																												
Project delivery risk	High																												
Strategic/zone specific? Which zone?	z3 South Quay																												
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042			
High growth scenario	Project details for this scenario																												
	Gross cost (£000s)	5000								2500				2500															
	Cost attrib. to South Poplar (with PP) (£000s)	0																											
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																											
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																											
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																											
	Cost attrib. to South Quay (with PP) (£000s)	0																											
	Cost attrib. to South Quay (Potential Growth) (£000s)	5000								2500				2500															
	Cost attrib. to Crossharbour (with PP) (£000s)	0																											
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																											
	Cost attrib. to Island Gardens (with PP) (£000s)	0																											
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																											
	Cost attrib. to other (£000s)	0																											
	Mainstream funding assumed (£000s)																												
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																												
	Unallocated dev. contrib. agreed (S106) (£000s)																												
	CIL/S106 funding sought from developments (£000s)	5000								2500				2500															
	Developer delivery (£000s)																												
	Other funding sought (£000s)																												
Medium growth scenario	Project details for this scenario																												
Low growth scenario	Project details for this scenario																												
Project name	East Ferry Road (including Crossharbour District Centre)																												
Project ref	C12																												
About the project	Improved pedestrian and cycle connections to Crossharbour District Centre, including upgrades to the East Ferry Road underpass to improve safety and perception of safety for users.																												
What priority?	1) critical enabling																												
Which lead organisation?	Developer																												
Project delivery risk	High																												
Strategic/zone specific? Which zone?	z4 Crossharbour																												
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042			
High growth scenario	Project details for this scenario																												
	Gross cost (£000s)	5000				1000				1000				1000				1000											
	Cost attrib. to South Poplar (with PP) (£000s)	0																											
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																											
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																											
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																											
	Cost attrib. to South Quay (with PP) (£000s)	0																											
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																											
	Cost attrib. to Crossharbour (with PP) (£000s)	1250				250				250				250				250											
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	3750				750				750				750				750											
	Cost attrib. to Island Gardens (with PP) (£000s)	0																											
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																											
	Cost attrib. to other (£000s)	0																											
	Mainstream funding assumed (£000s)																												
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																												
	Unallocated dev. contrib. agreed (S106) (£000s)																												
	CIL/S106 funding sought from developments (£000s)	5000				1000				1000				1000				1000											
	Developer delivery (£000s)																												
	Other funding sought (£000s)																												

Local connections and transport

Medium growth	Project details for this scenario																											
	Gross cost (£000s)		5000		1000		1000		1000		1000		1000															
	Cost attrib. to South Poplar (with PP) (£000s)		0																									
	Cost attrib. to South Poplar (Potential Growth) (£000s)		0																									
	Cost attrib. to Canary Wharf (with PP) (£000s)		0																									
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																									
	Cost attrib. to South Quay (with PP) (£000s)		0																									
	Cost attrib. to South Quay (Potential Growth) (£000s)		0																									
	Cost attrib. to Crossharbour (with PP) (£000s)		1250		250		250		250		250		250															
	Cost attrib. to Crossharbour (Potential Growth) (£000s)		3750		750		750		750		750		750															
	Cost attrib. to Island Gardens (with PP) (£000s)		0																									
	Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																									
	Cost attrib. to other (£000s)		0																									
	Mainstream funding assumed (£000s)																											
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																											
	Unallocated dev. contrib. agreed (\$106) (£000s)																											
	CIL/\$106 funding sought from developments (£000s)		5000		1000		1000		1000		1000		1000															
	Developer delivery (£000s)																											
	Other funding sought (£000s)																											
	Low growth	Project details for this scenario																										
		Gross cost (£000s)		5000		1000		1000		1000		1000		1000														
Cost attrib. to South Poplar (with PP) (£000s)		0																										
Cost attrib. to South Poplar (Potential Growth) (£000s)		0																										
Cost attrib. to Canary Wharf (with PP) (£000s)		0																										
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																										
Cost attrib. to South Quay (with PP) (£000s)		0																										
Cost attrib. to South Quay (Potential Growth) (£000s)		0																										
Cost attrib. to Crossharbour (with PP) (£000s)		1250		250		250		250		250		250																
Cost attrib. to Crossharbour (Potential Growth) (£000s)		3750		750		750		750		750		750																
Cost attrib. to Island Gardens (with PP) (£000s)		0																										
Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																										
Cost attrib. to other (£000s)		0																										
Mainstream funding assumed (£000s)																												
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																												
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																												
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																												
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																												
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																												
Unallocated dev. contrib. agreed (\$106) (£000s)																												
CIL/\$106 funding sought from developments (£000s)		5000		1000		1000		1000		1000		1000																
Developer delivery (£000s)																												
Other funding sought (£000s)																												
Project name		Westferry Road																										
Project ref		C13																										
About the project		Upgrades to improve public realm and provide better facilities for cyclists, connecting into the upgrades of Manchester Road at Island Gardens. Includes replacement of Westferry Road footbridge with surface level crossings. This would also include the removal of the bridge on Westferry Road.																										
What priority?		2) essential mitigation																										
Which lead organisation?		Developer																										
Project delivery risk		High																										
Strategic/zone specific? Which zone?		z4 Crossharbour																										
Scenario		Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042	
High growth sc	Project details for this scenario																											
	Gross cost (£000s)		5000												1000		1000		1000		1000							
	Cost attrib. to South Poplar (with PP) (£000s)		0																									
	Cost attrib. to South Poplar (Potential Growth) (£000s)		0																									
	Cost attrib. to Canary Wharf (with PP) (£000s)		0																									
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																									
	Cost attrib. to South Quay (with PP) (£000s)		0																									
	Cost attrib. to South Quay (Potential Growth) (£000s)		0																									
	Cost attrib. to Crossharbour (with PP) (£000s)		0																									
	Cost attrib. to Crossharbour (Potential Growth) (£000s)		5000												1000		1000		1000		1000							
	Cost attrib. to Island Gardens (with PP) (£000s)		0																									
	Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																									
Cost attrib. to other (£000s)		0																										

Local connections and transport

[illegible]

Local connections and transport

Medium grow	Project details for this scenario																									
	Gross cost (£000s)	1000																								
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
CIL/£106 funding sought from developments (£000s)	1000																									
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Low growth	Project details for this scenario																									
	Gross cost (£000s)	1000																								
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
CIL/£106 funding sought from developments (£000s)	1000																									
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Project name	Glengall Quay Bridge																									
Project ref	C14ii																									
About the project	Upgrade to existing bridge to improve access for pedestrians and cyclists.																									
What priority?	2) essential mitigation																									
Which lead organisation?	Developer																									
Project delivery risk	<div></div>																									
Strategic/zone specific? Which zone?	z4 Crossharbour																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042

Local connections and transport

	Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) 1000 Developer delivery (£000s) Other funding sought (£000s)	1000	1000
Medium growth	Project details for this scenario		
	Gross cost (£000s)	1000	1000
	Cost attrib. to South Poplar (with PP) (£000s)	0	
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0	
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0	
	Cost attrib. to South Quay (with PP) (£000s)	0	
	Cost attrib. to South Quay (Potential Growth) (£000s)	0	
	Cost attrib. to Crossharbour (with PP) (£000s)	0	
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000	1000
	Cost attrib. to Island Gardens (with PP) (£000s)	0	
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0	
	Cost attrib. to other (£000s)	0	
	Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) 1000 Developer delivery (£000s) Other funding sought (£000s)	1000	1000
Low growth	Project details for this scenario		
	Gross cost (£000s)	1000	1000
	Cost attrib. to South Poplar (with PP) (£000s)	0	
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0	
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0	
	Cost attrib. to South Quay (with PP) (£000s)	0	
	Cost attrib. to South Quay (Potential Growth) (£000s)	0	
	Cost attrib. to Crossharbour (with PP) (£000s)	0	
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000	1000
	Cost attrib. to Island Gardens (with PP) (£000s)	0	
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0	
	Cost attrib. to other (£000s)	0	
	Mainstream funding assumed (£000s) Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s) Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s) Unallocated dev. contrib. agreed (£106) (£000s) CIL/£106 funding sought from developments (£000s) 1000 Developer delivery (£000s) Other funding sought (£000s)	1000	1000

Local connections and transport

Project name	Millharbour																									
Project ref	C15																									
About the project	Cycle improvements to Millharbour																									
What priority?	4) desirable																									
Which lead organisation?	Developer																									
Project delivery risk	<div></div>																									
Strategic/zone specific? Which zone?	z4 Crossharbour																									
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth	Project details for this scenario																									
	Gross cost (£000s)	1000																								
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	1000																								
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth	Project details for this scenario																									
	Gross cost (£000s)	1000																								
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	1000																								
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth	Project details for this scenario																									
	Gross cost (£000s)	1000																								
	Cost attrib. to South Poplar (with PP) (£000s)	0																								
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																								
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	0																								
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	0																								
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000																								
	Cost attrib. to Island Gardens (with PP) (£000s)	0																								
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	0																								

Local connections and transport

Mainstream funding assumed (€000s) Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s) Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s) Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s) Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s) Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s) Unallocated dev. contrib. agreed (S106) (€000s) CIL/S106 funding sought from developments (€000s) 1000 Developer delivery (€000s) Other funding sought (€000s)																											
		Project name Spindrift Avenue																									
		Project ref C16																									
		About the project Signage and wayfinding improvements for pedestrians and cyclists																									
		What priority? 3) high priority																									
		Which lead organisation? Developer																									
		Project delivery risk Strategic cross-site																									
Strategic/zone specific? Which zone?		Strategic cross-site																									
Scenario		Total (€000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario		Project details for this scenario																									
Gross cost (€000s)		500																									
Cost attrib. to South Poplar (with PP) (€000s)		0																									
Cost attrib. to South Poplar (Potential Growth) (€000s)		100																									
Cost attrib. to Canary Wharf (with PP) (€000s)		0																									
Cost attrib. to Canary Wharf (Potential Growth) (€000s)		100																									
Cost attrib. to South Quay (with PP) (€000s)		0																									
Cost attrib. to South Quay (Potential Growth) (€000s)		100																									
Cost attrib. to Crossharbour (with PP) (€000s)		0																									
Cost attrib. to Crossharbour (Potential Growth) (€000s)		100																									
Cost attrib. to Island Gardens (with PP) (€000s)		0																									
Cost attrib. to Island Gardens (Potential Growth) (€000s)		100																									
Cost attrib. to other (€000s)		0																									
Mainstream funding assumed (€000s)																											
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																											
Unallocated dev. contrib. agreed (S106) (€000s)																											
CIL/S106 funding sought from developments (€000s)		500																									
Developer delivery (€000s)																											
Other funding sought (€000s)																											
Medium growth scenario		Project details for this scenario																									
Gross cost (€000s)		500																									
Cost attrib. to South Poplar (with PP) (€000s)		0																									
Cost attrib. to South Poplar (Potential Growth) (€000s)		100																									
Cost attrib. to Canary Wharf (with PP) (€000s)		0																									
Cost attrib. to Canary Wharf (Potential Growth) (€000s)		100																									
Cost attrib. to South Quay (with PP) (€000s)		0																									
Cost attrib. to South Quay (Potential Growth) (€000s)		100																									
Cost attrib. to Crossharbour (with PP) (€000s)		0																									
Cost attrib. to Crossharbour (Potential Growth) (€000s)		100																									
Cost attrib. to Island Gardens (with PP) (€000s)		0																									
Cost attrib. to Island Gardens (Potential Growth) (€000s)		100																									
Cost attrib. to other (€000s)		0																									
Mainstream funding assumed (€000s)																											
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																											
Unallocated dev. contrib. agreed (S106) (€000s)																											
CIL/S106 funding sought from developments (€000s)		500																									
Developer delivery (€000s)																											
Other funding sought (€000s)																											

Local connections and transport

High growth	Project details for this scenario																												
	Gross cost (£000s)	500																											
	Cost attrib. to South Poplar (with PP) (£000s)	0																											
	Cost attrib. to South Poplar (Potential Growth) (£000s)	100																											
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																											
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	100																											
	Cost attrib. to South Quay (with PP) (£000s)	0																											
	Cost attrib. to South Quay (Potential Growth) (£000s)	100																											
	Cost attrib. to Crossharbour (with PP) (£000s)	0																											
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	100																											
	Cost attrib. to Island Gardens (with PP) (£000s)	0																											
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	100																											
	Cost attrib. to other (£000s)	0																											
	Mainstream funding assumed (£000s)																												
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																												
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																												
	Unallocated dev. contrib. agreed (\$106) (£000s)																												
CIL/\$106 funding sought from developments (£000s)		500																											
Developer delivery (£000s)																													
Other funding sought (£000s)																													
Project name		Limehouse to Leamouth walking route																											
Project ref		C17i																											
About the project		Upgrades to the Thames Path public realm to create a high quality, continuous connection with a strong identity. The first step would be undertaking a feasibility study to look into potential for completing missing links along the Thames Path.																											
What priority?		2) essential mitigation																											
Which lead organisation?		Developer																											
Project delivery risk																													
Strategic/zone specific? Which zone?		Strategic cross-site																											
Scenario		Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042		
High growth scenario		Project details for this scenario																											
		Gross cost (£000s)	3000	500	500	1000	1000																						
		Cost attrib. to South Poplar (with PP) (£000s)	0																										
		Cost attrib. to South Poplar (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to Canary Wharf (with PP) (£000s)	0																										
		Cost attrib. to Canary Wharf (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to South Quay (with PP) (£000s)	0																										
		Cost attrib. to South Quay (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to Crossharbour (with PP) (£000s)	0																										
		Cost attrib. to Crossharbour (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to Island Gardens (with PP) (£000s)	0																										
		Cost attrib. to Island Gardens (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to other (£000s)	0																										
		Mainstream funding assumed (£000s)																											
		Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																											
		Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																											
		Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																											
		Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																											
		Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																											
		Unallocated dev. contrib. agreed (\$106) (£000s)																											
		CIL/\$106 funding sought from developments (£000s)	3000	500	500	1000	1000																						
		Developer delivery (£000s)																											
		Other funding sought (£000s)																											
Medium growth scenario		Project details for this scenario																											
		Gross cost (£000s)	3000	500	500	1000	1000																						
		Cost attrib. to South Poplar (with PP) (£000s)	0																										
		Cost attrib. to South Poplar (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to Canary Wharf (with PP) (£000s)	0																										
		Cost attrib. to Canary Wharf (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to South Quay (with PP) (£000s)	0																										
		Cost attrib. to South Quay (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to Crossharbour (with PP) (£000s)	0																										
		Cost attrib. to Crossharbour (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to Island Gardens (with PP) (£000s)	0																										
		Cost attrib. to Island Gardens (Potential Growth) (£000s)	600	100	100	200	200																						
		Cost attrib. to other (£000s)	0																										

Local connections and transport

[illegible]

Local connections and transport

Medium growth		Project details for this scenario																									
Gross cost (£000s)		5000																									
Cost attrib. to South Poplar (with PP) (£000s)		0																									
Cost attrib. to South Poplar (Potential Growth) (£000s)		5000																									
Cost attrib. to Canary Wharf (with PP) (£000s)		0																									
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																									
Cost attrib. to South Quay (with PP) (£000s)		0																									
Cost attrib. to South Quay (Potential Growth) (£000s)		0																									
Cost attrib. to Crossharbour (with PP) (£000s)		0																									
Cost attrib. to Crossharbour (Potential Growth) (£000s)		0																									
Cost attrib. to Island Gardens (with PP) (£000s)		0																									
Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																									
Cost attrib. to other (£000s)		0																									
Mainstream funding assumed (£000s)																											
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (\$106) (£000s)																											
CIL/\$106 funding sought from developments (£000s)		5000																									
Developer delivery (£000s)																											
Other funding sought (£000s)																											
Low growth		Project details for this scenario																									
Gross cost (£000s)		5000																									
Cost attrib. to South Poplar (with PP) (£000s)		0																									
Cost attrib. to South Poplar (Potential Growth) (£000s)		5000																									
Cost attrib. to Canary Wharf (with PP) (£000s)		0																									
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																									
Cost attrib. to South Quay (with PP) (£000s)		0																									
Cost attrib. to South Quay (Potential Growth) (£000s)		0																									
Cost attrib. to Crossharbour (with PP) (£000s)		0																									
Cost attrib. to Crossharbour (Potential Growth) (£000s)		0																									
Cost attrib. to Island Gardens (with PP) (£000s)		0																									
Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																									
Cost attrib. to other (£000s)		0																									
Mainstream funding assumed (£000s)																											
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (\$106) (£000s)																											
CIL/\$106 funding sought from developments (£000s)		5000																									
Developer delivery (£000s)																											
Other funding sought (£000s)																											
Project name		DLR station public realm upgrades																									
Project ref		C20																									
About the project		Improvements to station public realm to improve the placemaking role of the station within the wider area. This could include Mudchute, Crossharbour (as part of wider works), South Quay, Poplar (as part of the wider works), Westferry and Blackwall (as part of wider works indicated above).																									
What priority?		2) essential mitigation																									
Which lead organisation?		TfL/LBTH/Developers																									
Project delivery risk		Orange																									
Strategic/zone specific? Which zone?		Strategic cross-site																									
Scenario		Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario		Project details for this scenario																									
Gross cost (£000s)		5000			1000	1000	1000	1000	1000																		
Cost attrib. to South Poplar (with PP) (£000s)		0																									
Cost attrib. to South Poplar (Potential Growth) (£000s)		2000			400	400	400	400	400																		
Cost attrib. to Canary Wharf (with PP) (£000s)		0																									
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		0																									
Cost attrib. to South Quay (with PP) (£000s)		0																									
Cost attrib. to South Quay (Potential Growth) (£000s)		1000			200	200	200	200	200																		
Cost attrib. to Crossharbour (with PP) (£000s)		0																									
Cost attrib. to Crossharbour (Potential Growth) (£000s)		2000			400	400	400	400	400																		
Cost attrib. to Island Gardens (with PP) (£000s)		0																									
Cost attrib. to Island Gardens (Potential Growth) (£000s)		0																									
Cost attrib. to other (£000s)		0																									

Local connections and transport

	Mainstream funding assumed (£000s)					
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)					
	Unallocated dev. contrib. agreed (£106) (£000s)					
	CIL/£106 funding sought from developments (£000s)	5000	1000	1000	1000	1000
	Developer delivery (£000s)					
	Other funding sought (£000s)					
Medium growth	Project details for this scenario					
	Gross cost (£000s)	5000	1000	1000	1000	1000
	Cost attrib. to South Poplar (with PP) (£000s)	0				
	Cost attrib. to South Poplar (Potential Growth) (£000s)	2000	400	400	400	400
	Cost attrib. to Canary Wharf (with PP) (£000s)	0				
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0				
	Cost attrib. to South Quay (with PP) (£000s)	0				
	Cost attrib. to South Quay (Potential Growth) (£000s)	1000	200	200	200	200
	Cost attrib. to Crossharbour (with PP) (£000s)	0				
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	2000	400	400	400	400
	Cost attrib. to Island Gardens (with PP) (£000s)	0				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0				
	Cost attrib. to other (£000s)	0				
	Mainstream funding assumed (£000s)					
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)					
	Unallocated dev. contrib. agreed (£106) (£000s)					
	CIL/£106 funding sought from developments (£000s)	5000	1000	1000	1000	1000
	Developer delivery (£000s)					
	Other funding sought (£000s)					
Low growth	Project details for this scenario					
	Gross cost (£000s)	5000	1000	1000	1000	1000
	Cost attrib. to South Poplar (with PP) (£000s)	0				
	Cost attrib. to South Poplar (Potential Growth) (£000s)	2000	400	400	400	400
	Cost attrib. to Canary Wharf (with PP) (£000s)	0				
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0				
	Cost attrib. to South Quay (with PP) (£000s)	0				
	Cost attrib. to South Quay (Potential Growth) (£000s)	1000	200	200	200	200
	Cost attrib. to Crossharbour (with PP) (£000s)	0				
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	2000	400	400	400	400
	Cost attrib. to Island Gardens (with PP) (£000s)	0				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0				
	Cost attrib. to other (£000s)	0				
	Mainstream funding assumed (£000s)					
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)					
	Unallocated dev. contrib. agreed (£106) (£000s)					
	CIL/£106 funding sought from developments (£000s)	5000	1000	1000	1000	1000
	Developer delivery (£000s)					
	Other funding sought (£000s)					

Local connections and transport

Project name	DLR station public realm - Westferry																									
Project ref	C21																									
About the project	Upgrade to the setting of Westferry Station, as part of 82 West India Dock Road development.																									
What priority?	2) essential mitigation																									
Which lead organisation?	Developer																									
Project delivery risk																										
Strategic/zone specific? Which zone?																										
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth	Project details for this scenario																									
Gross cost (£000s)	5000																									
Cost attrib. to South Poplar (with PP) (£000s)	0																									
Cost attrib. to South Poplar (Potential Growth) (£000s)	5000																									
Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																									
Cost attrib. to South Quay (with PP) (£000s)	0																									
Cost attrib. to South Quay (Potential Growth) (£000s)	0																									
Cost attrib. to Crossharbour (with PP) (£000s)	0																									
Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																									
Cost attrib. to Island Gardens (with PP) (£000s)	0																									
Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																									
Cost attrib. to other (£000s)	0																									
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)																										
Developer delivery (£000s)	5000																									
Other funding sought (£000s)																										
Medium growth	Project details for this scenario																									
Gross cost (£000s)	5000																									
Cost attrib. to South Poplar (with PP) (£000s)	0																									
Cost attrib. to South Poplar (Potential Growth) (£000s)	5000																									
Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																									
Cost attrib. to South Quay (with PP) (£000s)	0																									
Cost attrib. to South Quay (Potential Growth) (£000s)	0																									
Cost attrib. to Crossharbour (with PP) (£000s)	0																									
Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																									
Cost attrib. to Island Gardens (with PP) (£000s)	0																									
Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																									
Cost attrib. to other (£000s)	0																									
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)																										
Developer delivery (£000s)	5000																									
Other funding sought (£000s)																										
Low growth	Project details for this scenario																									
Gross cost (£000s)	5000																									
Cost attrib. to South Poplar (with PP) (£000s)	0																									
Cost attrib. to South Poplar (Potential Growth) (£000s)	5000																									
Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																									
Cost attrib. to South Quay (with PP) (£000s)	0																									
Cost attrib. to South Quay (Potential Growth) (£000s)	0																									
Cost attrib. to Crossharbour (with PP) (£000s)	0																									
Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																									
Cost attrib. to Island Gardens (with PP) (£000s)	0																									
Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																									
Cost attrib. to other (£000s)	0																									

Local connections and transport

Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (\$106) (£000s)																										
CIL/\$106 funding sought from developments (£000s)																										
Developer delivery (£000s)		5000			1250	1250	1250	1250																		
Other funding sought (£000s)																										
Project name		Saunders Ness Road																								
Project ref		C23																								
About the project		Remove vehicular traffic from the western section of Saunders Ness Road and create a high quality, green space for pedestrians and cyclists along the northern side of Island Gardens.																								
What priority?		4) desirable																								
Which lead organisation?		TBC																								
Project delivery risk																										
Strategic/zone specific? Which zone?		Strategic cross-site																								
Scenario	Total (£000s)	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	2035/2036	2036/2037	2037/2038	2038/2039	2039/2040	2040/2041	2041/2042
High growth scenario - Project details for this scenario																										
Gross cost (£000s)		2000										2000														
Cost attrib. to South Poplar (with PP) (£000s)		0																								
Cost attrib. to South Poplar (Potential Growth) (£000s)		400										400														
Cost attrib. to Canary Wharf (with PP) (£000s)		0																								
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		400										400														
Cost attrib. to South Quay (with PP) (£000s)		0																								
Cost attrib. to South Quay (Potential Growth) (£000s)		400										400														
Cost attrib. to Crossharbour (with PP) (£000s)		0																								
Cost attrib. to Crossharbour (Potential Growth) (£000s)		400										400														
Cost attrib. to Island Gardens (with PP) (£000s)		0																								
Cost attrib. to Island Gardens (Potential Growth) (£000s)		400										400														
Cost attrib. to other (£000s)		0																								
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (\$106) (£000s)																										
CIL/\$106 funding sought from developments (£000s)		2000										2000														
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Medium growth scenario - Project details for this scenario																										
Gross cost (£000s)		2000										2000														
Cost attrib. to South Poplar (with PP) (£000s)		0																								
Cost attrib. to South Poplar (Potential Growth) (£000s)		400										400														
Cost attrib. to Canary Wharf (with PP) (£000s)		0																								
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		400										400														
Cost attrib. to South Quay (with PP) (£000s)		0																								
Cost attrib. to South Quay (Potential Growth) (£000s)		400										400														
Cost attrib. to Crossharbour (with PP) (£000s)		0																								
Cost attrib. to Crossharbour (Potential Growth) (£000s)		400										400														
Cost attrib. to Island Gardens (with PP) (£000s)		0																								
Cost attrib. to Island Gardens (Potential Growth) (£000s)		400										400														
Cost attrib. to other (£000s)		0																								
Mainstream funding assumed (£000s)																										
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (\$106) (£000s)																										
CIL/\$106 funding sought from developments (£000s)		2000										2000														
Developer delivery (£000s)																										
Other funding sought (£000s)																										

Local connections and transport

Low growth	Project details for this scenario																											
	Gross cost (£000s)	2000																										
	Cost attrib. to South Poplar (with PP) (£000s)	0																										
	Cost attrib. to South Poplar (Potential Growth) (£000s)	400	400																									
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																										
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	400	400																									
	Cost attrib. to South Quay (with PP) (£000s)	0																										
	Cost attrib. to South Quay (Potential Growth) (£000s)	400	400																									
	Cost attrib. to Crossharbour (with PP) (£000s)	0																										
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	400	400																									
	Cost attrib. to Island Gardens (with PP) (£000s)	0																										
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	400	400																									
	Cost attrib. to other (£000s)	0																										
	Mainstream funding assumed (£000s)																											
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																											
	Unallocated dev. contrib. agreed (£106) (£000s)																											
CIL/£106 funding sought from developments (£000s)		2000	2000																									
Developer delivery (£000s)																												
Other funding sought (£000s)																												
Project name		Cycle Hire																										
Project ref		C25																										
About the project		Cycle Hire stations would come forward as part of the planning process, as a response to increased demand as a result of additional development. We have assumed the delivery of five new/replacement cycle hire stations (£210k each at North Quay, Crossharbour, Riverside South, Billingsgate and the																										
What priority?		3) high priority																										
Which lead organisation?		TfL																										
Project delivery risk		<div></div>																										
Strategic/zone specific? Which zone?		Strategic cross-site																										
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042		
High growth	Project details for this scenario																											
	Gross cost (£000s)	2000	104	104	104	104	104	109	109	109	109	109	83	83	83	83	83	59	59	59	59	59	45	45	45	45		
	Cost attrib. to South Poplar (with PP) (£000s)	98	13	13	13	13	13	7	7	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to South Poplar (Potential Growth) (£000s)	284	0	0	0	0	0	6	6	6	6	6	26	26	26	26	14	14	14	14	14	11	11	11	11	11		
	Cost attrib. to Canary Wharf (with PP) (£000s)	307	34	34	34	34	34	27	27	27	27	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	146	0	0	0	0	0	5	5	5	5	19	19	19	19	19	6	6	6	6	6	0	0	0	0	0		
	Cost attrib. to South Quay (with PP) (£000s)	244	29	29	29	29	29	20	20	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to South Quay (Potential Growth) (£000s)	298	0	0	0	0	0	13	13	13	13	27	27	27	27	27	12	12	12	12	12	7	7	7	7	7		
	Cost attrib. to Crossharbour (with PP) (£000s)	137	25	25	25	25	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	454	0	0	0	0	0	26	26	26	26	12	12	12	12	12	27	27	27	27	27	26	26	26	26	26		
	Cost attrib. to Island Gardens (with PP) (£000s)	13	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	20	0	0	0	0	0	2	2	2	2	2	0	0	0	0	1	1	1	1	1	1	1	1	1	1		
	Cost attrib. to other (£000s)	0																										
	Mainstream funding assumed (£000s)																											
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																											
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																											
	Unallocated dev. contrib. agreed (£106) (£000s)																											
	CIL/£106 funding sought from developments (£000s)	2000	104	104	104	104	104	109	109	109	109	109	83	83	83	83	83	59	59	59	59	59	45	45	45	45		
	Developer delivery (£000s)																											
	Other funding sought (£000s)																											
Medium growth	Project details for this scenario																											
	Gross cost (£000s)	2000	139	139	139	139	139	123	123	123	123	123	80	80	80	80	80	35	35	35	35	35	23	23	23	23		
	Cost attrib. to South Poplar (with PP) (£000s)	131	17	17	17	17	17	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to South Poplar (Potential Growth) (£000s)	179	0	0	0	0	0	5	5	5	5	5	22	22	22	22	22	5	5	5	5	5	5	5	5	5		
	Cost attrib. to Canary Wharf (with PP) (£000s)	412	46	46	46	46	46	36	36	36	36	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	120	0	0	0	0	0	0	0	0	0	0	24	24	24	24	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to South Quay (with PP) (£000s)	326	38	38	38	38	38	27	27	27	27	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to South Quay (Potential Growth) (£000s)	279	0	0	0	0	0	15	15	15	15	15	24	24	24	24	14	14	14	14	14	3	3	3	3	3		
	Cost attrib. to Crossharbour (with PP) (£000s)	184	34	34	34	34	34	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	336	0	0	0	0	0	26	26	26	26	10	10	10	10	10	16	16	16	16	16	16	16	16	16	16		
	Cost attrib. to Island Gardens (with PP) (£000s)	17	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	16	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Cost attrib. to other (£000s)	0																										

Local connections and transport																											
	Mainstream funding assumed (€000s)																										
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																										
	Unallocated dev. contrib. agreed (S106) (€000s)																										
	CIL/S106 funding sought from developments (€000s)	2000	139	139	139	139	139	123	123	123	123	123	123	80	80	80	80	80	35	35	35	35	35	23	23	23	23
	Developer delivery (€000s)																										
	Other funding sought (€000s)																										
Low growth	Project details for this scenario																										
	Gross cost (€000s)	2000	139	139	139	139	139	123	123	123	123	123	80	80	80	80	80	35	35	35	35	35	23	23	23	23	
	Cost attrib. to South Poplar (with PP) (€000s)	131	17	17	17	17	17	9	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to South Poplar (Potential Growth) (€000s)	179	0	0	0	0	0	5	5	5	5	5	22	22	22	22	22	5	5	5	5	5	5	5	5	5	
	Cost attrib. to Canary Wharf (with PP) (€000s)	412	46	46	46	46	46	36	36	36	36	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Canary Wharf (Potential Growth) (€000s)	120	0	0	0	0	0	0	0	0	0	0	24	24	24	24	24	0	0	0	0	0	0	0	0	0	
	Cost attrib. to South Quay (with PP) (€000s)	326	38	38	38	38	38	27	27	27	27	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to South Quay (Potential Growth) (€000s)	279	0	0	0	0	0	15	15	15	15	15	24	24	24	24	24	14	14	14	14	14	3	3	3	3	
	Cost attrib. to Crossharbour (with PP) (€000s)	184	34	34	34	34	34	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Crossharbour (Potential Growth) (€000s)	336	0	0	0	0	0	26	26	26	26	26	10	10	10	10	10	16	16	16	16	16	16	16	16	16	
	Cost attrib. to Island Gardens (with PP) (€000s)	17	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Island Gardens (Potential Growth) (€000s)	16	0	0	0	0	0	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to other (€000s)	0																									
	Mainstream funding assumed (€000s)																										
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																										
Unallocated dev. contrib. agreed (S106) (€000s)																											
CIL/S106 funding sought from developments (€000s)	2000	139	139	139	139	139	123	123	123	123	123	80	80	80	80	80	35	35	35	35	35	23	23	23	23		
Developer delivery (€000s)																											
Other funding sought (€000s)																											
Project name	Creative/cultural strategy and wayfinding																										
Project ref	C28																										
About the project	A strategy for creative and cultural regeneration to inform the design of the public realm, streets and spaces and create places of exception and delight across OA.																										
What priority?	2) essential mitigation																										
Which lead organisation?	Developer																										
Project delivery risk	<div></div>																										
Strategic/zone specific? Which zone?	Strategic cross-site																										
Scenario	Total (€000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042	
High growth sc	Project details for this scenario																										
	Gross cost (€000s)	3500	500	500	500	500	500	500	500																		
	Cost attrib. to South Poplar (with PP) (€000s)	0																									
	Cost attrib. to South Poplar (Potential Growth) (€000s)	700	100	100	100	100	100	100	100																		
	Cost attrib. to Canary Wharf (with PP) (€000s)	0																									
	Cost attrib. to Canary Wharf (Potential Growth) (€000s)	700	100	100	100	100	100	100	100																		
	Cost attrib. to South Quay (with PP) (€000s)	0																									
	Cost attrib. to South Quay (Potential Growth) (€000s)	700	100	100	100	100	100	100	100																		
	Cost attrib. to Crossharbour (with PP) (€000s)	0																									
	Cost attrib. to Crossharbour (Potential Growth) (€000s)	700	100	100	100	100	100	100	100																		
	Cost attrib. to Island Gardens (with PP) (€000s)	0																									
	Cost attrib. to Island Gardens (Potential Growth) (€000s)	700	100	100	100	100	100	100	100																		
	Cost attrib. to other (€000s)	0																									
Mainstream funding assumed (€000s)																											
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																											
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																											
Unallocated dev. contrib. agreed (S106) (€000s)																											
CIL/S106 funding sought from developments (€000s)	3500	500	500	500	500	500	500	500	500																		
Developer delivery (€000s)																											
Other funding sought (€000s)																											

Local connections and transport

Medium growth	Project details for this scenario																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Local connections and transport

	Mainstream funding assumed (£000s)			
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)			
	Unallocated dev. contrib. agreed (£106) (£000s)			
	CIL/£106 funding sought from developments (£000s)	5000	2500	2500
	Developer delivery (£000s)			
	Other funding sought (£000s)			
Medium growth	Project details for this scenario			
	Gross cost (£000s)	5000	2500	2500
	Cost attrib. to South Poplar (with PP) (£000s)	0		
	Cost attrib. to South Poplar (Potential Growth) (£000s)	5000	2500	2500
	Cost attrib. to Canary Wharf (with PP) (£000s)	0		
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0		
	Cost attrib. to South Quay (with PP) (£000s)	0		
	Cost attrib. to South Quay (Potential Growth) (£000s)	0		
	Cost attrib. to Crossharbour (with PP) (£000s)	0		
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0		
	Cost attrib. to Island Gardens (with PP) (£000s)	0		
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0		
	Cost attrib. to other (£000s)	0		
	Mainstream funding assumed (£000s)			
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)			
	Unallocated dev. contrib. agreed (£106) (£000s)			
	CIL/£106 funding sought from developments (£000s)	5000	2500	2500
	Developer delivery (£000s)			
	Other funding sought (£000s)			
Low growth	Project details for this scenario			
	Gross cost (£000s)	5000	2500	2500
	Cost attrib. to South Poplar (with PP) (£000s)	0		
	Cost attrib. to South Poplar (Potential Growth) (£000s)	5000	2500	2500
	Cost attrib. to Canary Wharf (with PP) (£000s)	0		
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0		
	Cost attrib. to South Quay (with PP) (£000s)	0		
	Cost attrib. to South Quay (Potential Growth) (£000s)	0		
	Cost attrib. to Crossharbour (with PP) (£000s)	0		
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0		
	Cost attrib. to Island Gardens (with PP) (£000s)	0		
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0		
	Cost attrib. to other (£000s)	0		
	Mainstream funding assumed (£000s)			
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)			
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)			
	Unallocated dev. contrib. agreed (£106) (£000s)			
	CIL/£106 funding sought from developments (£000s)	5000	2500	2500
	Developer delivery (£000s)			
	Other funding sought (£000s)			

Local connections and transport

[illegible]

Local connections and transport

[illegible]

Local connections and transport

High growth	Project details for this scenario																										
	Gross cost (£000s)	2000																									
	Cost attrib. to South Poplar (with PP) (£000s)	0																									
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																									
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	2000																									
	Cost attrib. to South Quay (with PP) (£000s)	0																									
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																									
	Cost attrib. to Crossharbour (with PP) (£000s)	0																									
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																									
	Cost attrib. to Island Gardens (with PP) (£000s)	0																									
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																									
	Cost attrib. to other (£000s)	0																									
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
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	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (\$106) (£000s)																										
	CIL/\$106 funding sought from developments (£000s)																										
	Developer delivery (£000s)	2000																									
	Other funding sought (£000s)																										
Project name		Promotion of River Services																									
Project ref		E1ii																									
About the project		Raise awareness of services, together with improving wayfinding and connections across the OA																									
What priority?		2) essential mitigation																									
Which lead organisation?		TfL																									
Project delivery risk		<div></div>																									
Strategic/zone specific? Which zone?		Strategic cross-site																									
Scenario		Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario	Project details for this scenario																										
	Gross cost (£000s)	5000		1667	1667	1667																					
	Cost attrib. to South Poplar (with PP) (£000s)	0																									
	Cost attrib. to South Poplar (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to South Quay (with PP) (£000s)	0																									
	Cost attrib. to South Quay (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to Crossharbour (with PP) (£000s)	0																									
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to Island Gardens (with PP) (£000s)	0																									
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to other (£000s)	0																									
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (\$106) (£000s)																										
	CIL/\$106 funding sought from developments (£000s)	5000		1667	1667	1667																					
	Developer delivery (£000s)																										
	Other funding sought (£000s)																										
Medium growth scenario	Project details for this scenario																										
	Gross cost (£000s)	5000		1667	1667	1667																					
	Cost attrib. to South Poplar (with PP) (£000s)	0																									
	Cost attrib. to South Poplar (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to Canary Wharf (with PP) (£000s)	0																									
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to South Quay (with PP) (£000s)	0																									
	Cost attrib. to South Quay (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to Crossharbour (with PP) (£000s)	0																									
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to Island Gardens (with PP) (£000s)	0																									
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	1000		333	333	333																					
	Cost attrib. to other (£000s)	0																									

Local connections and transport

	Mainstream funding assumed (£000s)					
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)					
	Unallocated dev. contrib. agreed (\$106) (£000s)					
	CIL/\$106 funding sought from developments (£000s)	5000	1667	1667	1667	
	Developer delivery (£000s)					
	Other funding sought (£000s)					
Low growth	Project details for this scenario					
	Gross cost (£000s)	5000	1667	1667	1667	
	Cost attrib. to South Poplar (with PP) (£000s)	0				
	Cost attrib. to South Poplar (Potential Growth) (£000s)	1000	333	333	333	
	Cost attrib. to Canary Wharf (with PP) (£000s)	0				
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	1000	333	333	333	
	Cost attrib. to South Quay (with PP) (£000s)	0				
	Cost attrib. to South Quay (Potential Growth) (£000s)	1000	333	333	333	
	Cost attrib. to Crossharbour (with PP) (£000s)	0				
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1000	333	333	333	
	Cost attrib. to Island Gardens (with PP) (£000s)	0				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	1000	333	333	333	
	Cost attrib. to other (£000s)	0				
	Mainstream funding assumed (£000s)					
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)					
	Unallocated dev. contrib. agreed (\$106) (£000s)					
		CIL/\$106 funding sought from developments (£000s)	5000	1667	1667	1667
		Developer delivery (£000s)				
		Other funding sought (£000s)				

Social infrastructure

- 4.88 This section covers the main social infrastructure themes of education, emergency services, health, leisure and community infrastructure. For these themes, we identified total costs of between £380m (low growth) and £494m (maximum growth).

Education

What infrastructure is needed?

- 4.89 In this section we deal with nursery, primary and secondary school provision.

Assessing the future school requirements

- 4.90 The requirements for school places is driven by annual birth rate, the current school population, movement into and out of the local authority area, housing development, cross border travel to attend schools and the provision of private school places.
- 4.91 We assume that the existing school capacity is sufficient for the existing population. We calculate the future school requirements based on the dwelling numbers in the relevant growth scenarios.

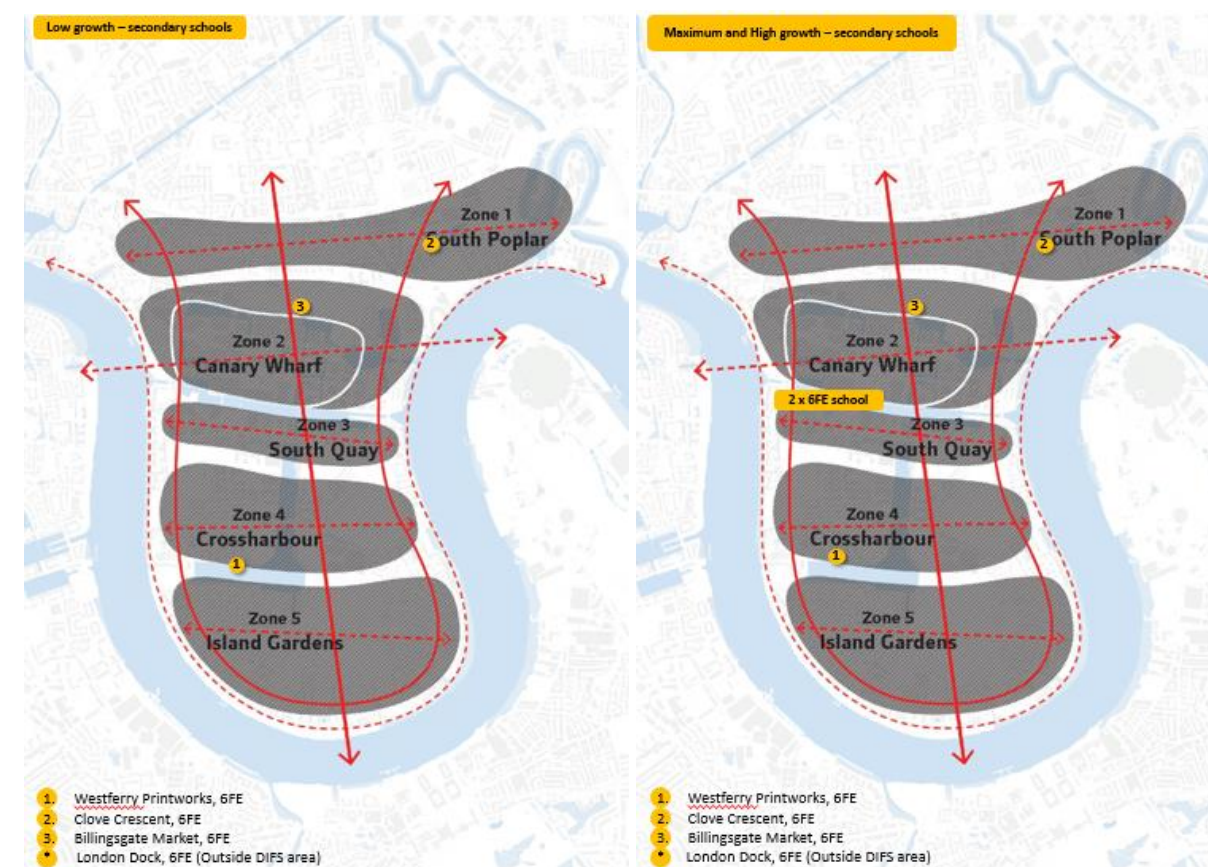
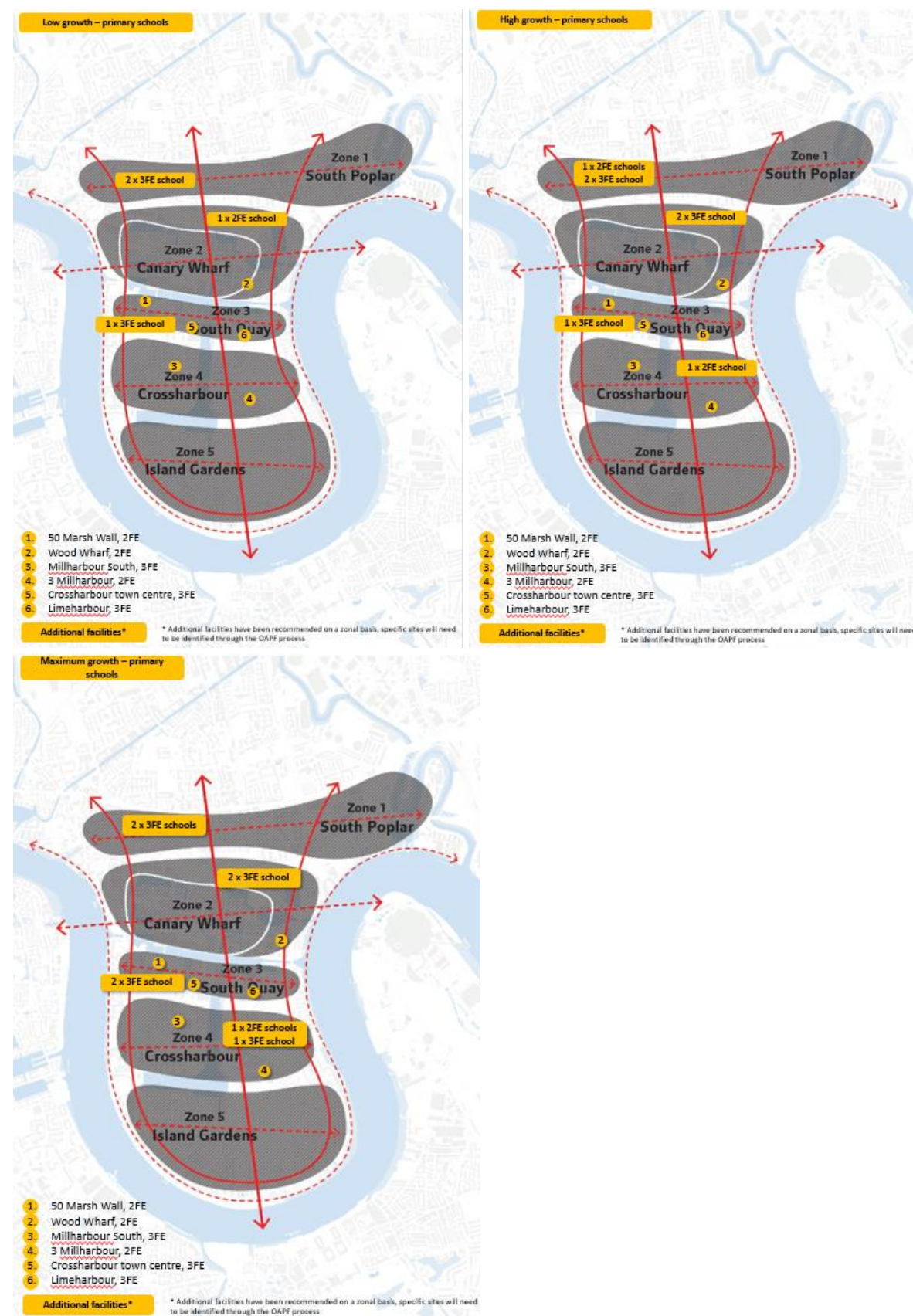
School typologies

- 4.92 For all education provision we talk in 'Forms of entry' (FE), where a 1FE school has 210 pupils (30 pupils per class x 7 years).
- 4.93 Nursery: Not all children attend a state run by the LPA. Discussions with LBTH have indicated that the borough do not make any standalone provision but do make some provision within primary schools namely 26 nursery places per FE (Pat Watson, LBTH, 21/03/17). LBTH assume that the private sector will meet the majority of nursery needs and we do not identify any costs for these within the DIFS. Nursery facilities are for children aged 2-3.
- 4.94 Primary schools: The maximum school class size is 30 pupils. Primary schools cater for children between 4-10 (7 years). 1FE is 210 pupils (30 x 7). Including the nursery spaces, 1FE is 236 places (210 + 26). A primary school is typically 2/3FE. Following discussions with LBTH, we assume that primary schools outside the IDP will be 3FE.
- 4.95 Secondary schools: A secondary school (including sixth form) caters for children aged 11-17 (7 years). At 30 pupils per class a 1FE facility has the capacity for 210 pupils. Typically, secondary schools are 6FE, and therefore the average school has capacity for 1,260 pupils. LBTH plan for secondary schools on a borough-wide basis; so for those secondary schools identified in the IDP, based on a pro-rata of LBTH's current plan for growth over the period to 2031, we have assumed that 52% of the places in those schools (and therefore their costs) relate to the study area. For any new secondary schools needed beyond this, we have not made any assumption about those schools needing to meet borough-wide needs so the provision and therefore costs relate solely to the needs in the study area. As secondary schools require a significant quantum of land we have provided the cost for land for these facilities. We have costed the land based on 1.5 hectares per 6FE school (LBTH Draft Site Selection Methodology Note 2016); as with secondary school places, we have assumed that 48% of those in the IDP will be meeting needs elsewhere in the borough so have only attributed 52% of land costs for these schools to the study area.

How will future school provision be met?

- 4.96 Within each project section below we set out the detailed assumptions used to calculate and cost the additional schools. The LBTH Infrastructure Delivery Plan (IDP) sets out a number of schools planned for delivery during our study period. Using the information in the IDP, and making a number of common assumptions, we incorporate these schools into our school delivery plan. How these IDP schools fit into the plan will be detailed in their own section below.
- 4.97 The GLA yield calculator shows that the total number of children requiring primary and secondary school places up to 2041/2042 are as follows: Low growth: 8,694; High growth: 11,171; Maximum growth: 12,646.
- 4.98 Considering this, the breakdown of education facilities required for each growth scenario within IoDSP is:
- Low growth
 - Primary: 4 X 2FE primary school; 6 X 3FE primary school
 - Secondary: 4 X 6FE secondary school (52% of places for study area children); 1 X 6FE secondary school (100% places)
 - High growth
 - Primary: 4 X 2FE primary school; 8 X 3FE primary school
 - Secondary: 4 X 6FE secondary school (52% of places for study area children); 2 X 6FE secondary school (100% places)
 - Maximum growth
 - Primary: 4 X 2FE primary school; 10 X 3FE primary school
 - Secondary: 4 X 6FE secondary school (52% of places for study area children); 2 X 6FE secondary school (100% places)
- 4.99 The potential distribution of these facilities is shown on the figures below.

Figure 4.6 Education requirements in the study area



How can infrastructure be paid for?

4.100 Additional school places are currently funded from three main funding streams, which are:

- Developer contributions to meet growth related needs (for instance through S106). There is a presumption by the DfE that all authorities will ask developers for a contribution of funds or land or buildings to assist with the impact on the local education infrastructure;
- Dedicated Schools Grant received from the Department for Education (DfE) to meet existing need. This is split into three blocks, the Schools Block, the Early Years Block, and High Needs Block; and
- Various ad hoc funding bids stemming from the DfE. This includes the Education Services Grant for academies and local authorities.

We assume that new schools and expansions will receive DfE Dedicated Schools Grant Funding

4.101 The main source of revenue for state-funded schools in England is the Dedicated Schools Grant (DSG). For this study we have assumed that mainstream funders (DfE) will pay 50% towards the capital requirement arising from growth. With development S106 picking up the remaining 50%.

The provision, management and funding of education infrastructure is going through changes at present.

4.102 There is some uncertainty as to how and where future school provision will be due to the formation of Academies and Free Schools at both primary and secondary level. The role of the Education authority is changing, and whilst it has responsibility for existing schools, it may not for

new schools. These changes in funding and management of schools could introduce opportunities for new mainstream mechanisms for providing schools in the future.

Notes, issues and recommendations

- 4.103 In calculating the likely provision for education facilities for each scenario we have made a number of key assumptions
- Calculating child yield - The GLA yield calculator and SYA tool has been used to calculate the child yield. This calculator uses the number, tenure and size of dwellings to calculate total population yield, as well as child yield. The GLA provided us with a housing schedule which detailed the number, size and tenure of homes with planning permission. This information was used in the yield calculator to estimate the number of children. For the 'potential growth' sites, the GLA provided us with a schedule detailing the size of homes. With this information we assumed 50% affordable, of which 40% are intermediate and 60% are social rent. For use within the calculator, the intermediate homes are considered as market homes. As instructed by the GLA we have selected all boroughs within the calculator, and then used the borough output.
 - Existing capacity - we have assumed that the existing schools in IoDSP cater for the existing child population. We therefore only calculate the requirement for school places based on the IoDSP development scenarios from 2017/2018 to 2041/2042.
 - Private facilities - nursery provision is frequently provided by the private market. We have therefore only calculated nursery provision for the small proportion of nursery provision which will be met by the public sector, allowing the majority to be catered for through the private market. We have not taken private primary or secondary facilities into account, therefore it is possible that we have overstated the requirement for school places.
 - We have provided the costs for land for secondary schools, as these require a significant quantum of land. Including this makes the DIFS more accurate. However, we envisage that primary schools and nursery facilities will be provided within the footprint of other developments, where the land cost will be inherent to the development cost. As such it would make the study less accurate to include these land costs.
 - Any land costs that we include in this study will be subject to change. Our cost estimates are based on the standard industrial land value of £7.491 million per hectare. This cost is not site specific and will therefore change when specific sites are selected for development. This land cost is here as a guide only.

Emergency services and CCTV

What infrastructure is needed?

- 4.104 In this section we deal with fire, ambulance, police and CCTV. This type of infrastructure is more challenging to plan for as the services required are not directly related to the number of people. We have used publicly available information to make assumptions about what emergency services/safety infrastructure will be required in the study area between 2017-2042. We use the existing provision to estimate future possible requirements. For all of these, it is important to note that the delivery of these emergency service infrastructure items is dependent on the delivery plan of the fire, ambulance, and police service.

Police

- 4.105 There are three police stations and four contact points within LBTH. Based on the 2011 Census population in LBTH, the police stations cater for 84,699 people, and the contact points cater for 63,524 people. Based on the GLA Yield Calculator output, the growth scenarios generate enough people for one additional police station, with contact point. Within the study area there is currently one police station (Limehouse Station). The estimated future population growth is enough to justify a new facility in the study area.

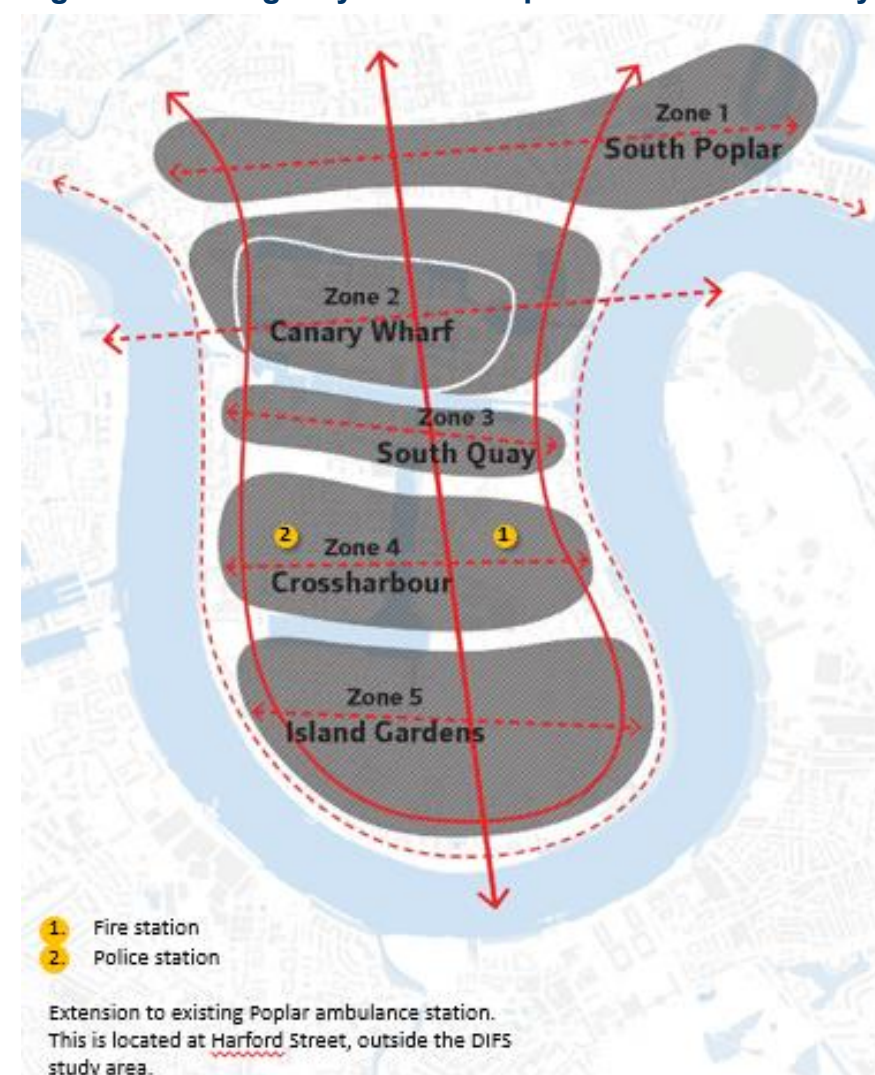
Ambulance

- 4.106 As the ambulance service functions across London, for this we have looked at the existing service provision for the population of London at Census 2011. This shows that with 70 ambulance stations in London, each ambulance station serves on average 116,770 people. The growth scenarios do not generate enough people for a new ambulance station. There is one ambulance station in LBTH (Poplar, Harford Street). We suggest a need for an extension (approx. 1,200 sqm for maximum growth, 1,000sqm for high and low) to the existing ambulance station.
- 4.107 The London Ambulance Service Estate Strategy (2011) states that they seek to develop 'Super Ambulance Stations' (SAS), with buildings of approx. 3,000 – 3,500 sqm. By extending the existing ambulance facility there is scope for a SAS to be developed.
- 4.108 This existing ambulance station is located outside the DIFS study area. It is also a facility which will serve the whole of LBTH. As IoDSP is 20% of the total LBTH land area, we have attributed 20% of the total cost to IoDSP.

Fire

- 4.109 There are five existing fire stations in LBTH, therefore one station serves 50,819 people. We have not spoken to the fire service, therefore the assumptions we have made on fire station provision are based on the existing provision, and the need for IOD to remain resilient given the large quantum of residential and office development coming forward. The growth scenario shows that there is a need for one additional fire station. We have costed for the station; however, more fire engines would be required for the maximum growth scenario.

Figure 4.7 Emergency service requirements in the study area



CCTV

- 4.110 According to the IDP, there are 250 CCTV cameras across LBTH, as well as supporting facilities, including a control room in the town hall. There are a number of CCTV improvements and enhancements schemes planned throughout LBTH, and the cost for this is detailed within the IDP. As this is a borough-wide project, we have attributed 20% of the total cost to IoD (based on land area - IoD has 20% of the total land area of LBTH). We assume that additional CCTV cameras will be provided through individual developments, and at the cost of the developers. We therefore do not cost for additional CCTV facilities. We assume that the monitoring station in the town hall will continue as the control room for the CCTV.

How can infrastructure be paid for?

- 4.111 In line with the rest of the country, funding for emergency services in London continues to be impacted by cuts to public sector funding. This forms a significant backdrop to the future planning of capital service needs. We assume that capital costs of space for enhancement of facilities are met through a combination of S106 and mainstream funding. At this stage it is not

possible to estimate what proportion of the funding will be met by mainstream, but for the purpose of this exercise we assume a third of the funding comes from mainstream.

Notes, issues and recommendations

- 4.112 In determining the likely provision for emergency service/safety facilities we have made a number of key assumptions:
- We assume that CCTV facilities will be delivered in line with the IDP, and 20% of this cost is attributable to IoDSP. Any additional CCTV facilities will be inherent in the development costs
 - Delivery risk for the emergency services has been set as amber due to funding cuts in emergency services
 - Our recommendations are purely based on the existing stations per population, and projecting this forward using the estimated population growth. Therefore, the delivery of such infrastructure items will depend on the delivery plan/strategy of the emergency services.

Health

What infrastructure is needed?

- 4.113 In this section we deal with primary health care facilities. To do this we have reviewed the existing provision of GP surgeries in LBTH and the IoDSP. In IoDSP there are seven GP surgeries, all of varying size and with varying patient rolls. On average there are approx. 1,750 patients per GP in the IoDSP. The NHS Healthy Urban Development Unit Model states that there should be 1,800 people per GP. Therefore, the IoDSP GP provision is almost at capacity. We have therefore assumed that there is unlikely to be significant capacity in existing surgeries to absorb the growth. We have calculated the number of GPs required for the population growth in IoDSP for the growth scenarios.

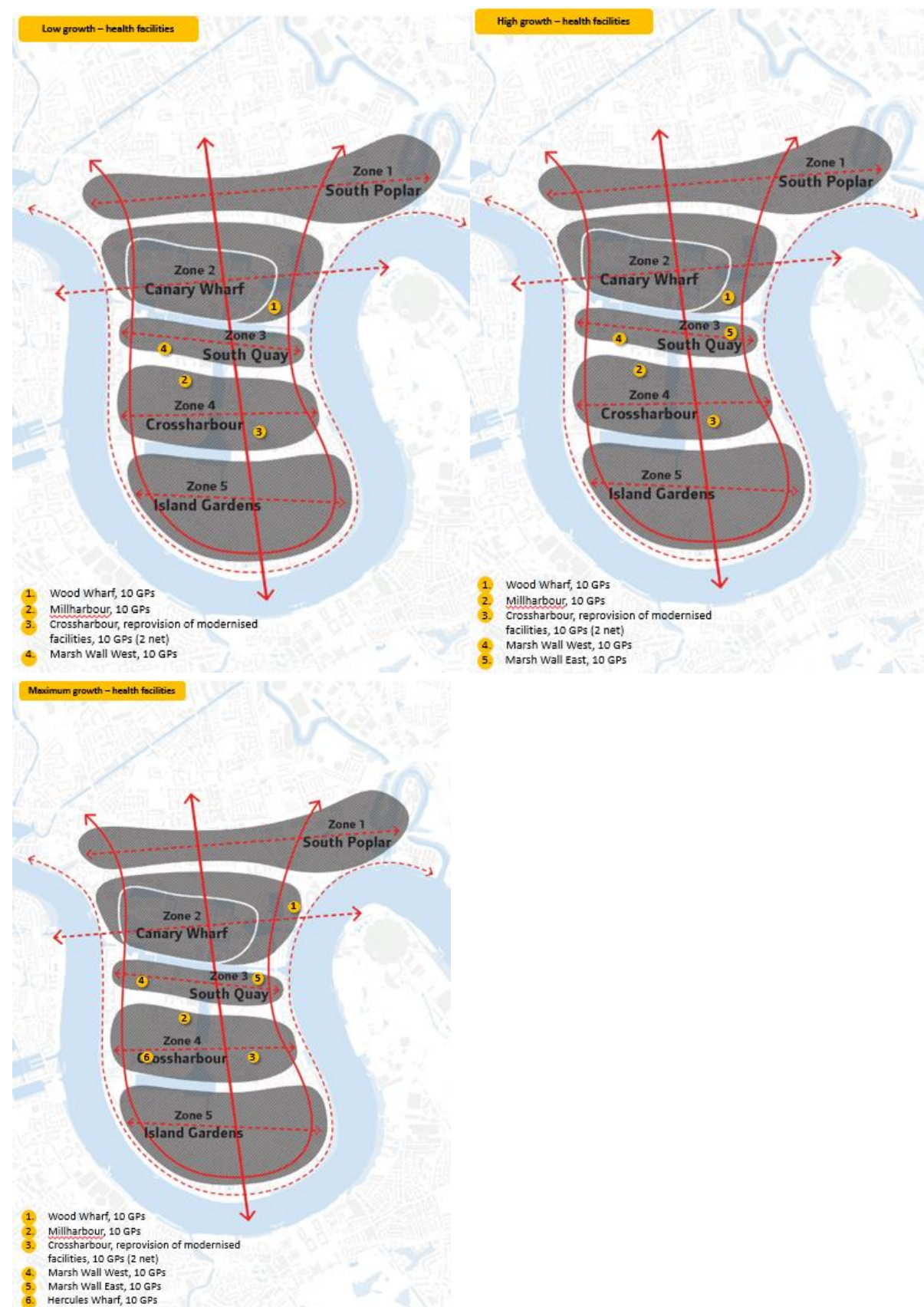
The number of GPs required

- 4.114 Based on 1 GP per 1,800 people, there is a requirement for the following number of GPs:
- Low growth: 36
 - High growth: 46
 - Maximum growth: 59

The number of GP surgeries required

- 4.115 Existing trends in LBTH and IoDSP suggest that on average there should be 6 GPs per surgery. However, in recent years there has been a trend to develop larger GP surgeries, such as the Barkantine Practice, which has 12 GPs. Elsewhere in the country there are surgeries with the capacity for 16 GPs. The evidence suggests that in London, modern GP practices have to use space efficiently to accommodate as many GPs as possible. In IoDSP, we have assumed that future GP surgeries will accommodate 10 GPs. Based on 10 GPs per surgery, the number of surgeries required is:
- Low growth: 4
 - High growth: 5
 - Maximum growth: 6

Figure 4.8 Health facilities requirements in the study area



How can infrastructure be paid for?

- 4.116 The funding line assumes that provision would be built by a developer, but leased back to the NHS to at least cover the developer's costs. If we do assume that a development and lease-back deal can be agreed, we assume that half of the capital costs of each building are supported through S106. This is because CCG capital and revenue funding is cash limited, so it is vital that additional funding is provided through alternative means. In effect, then, we assume that developers will pay 50% of the upfront costs for the development of each surgery, and S106 will pay 50%. The developer's share of the costs (including financing) will be repaid by the public sector over time. Meaning that the public sector (NHS) will in the end pay the full cost for the facilities. We assume that, because the developer's development and financing costs are paid ultimately by the NHS, that this is cost neutral to the developer. LBTH has a pot of s106 money for health, so we have assumed this can pay for these health care facilities and the remainder will be paid for by the NHS.

Notes, issues and recommendations

- 4.117 The opportunity for co-location with other community facilities should be explored as more detailed plans emerge. There are many examples of pharmacies, community facilities etc. incorporated into GP surgeries.
- 4.118 The proportion of social housing and the mix of housing types and sizes, particularly family housing will affect health demands. As stated in the education theme, we have used the GLA Population Yield Calculator and SYA tool to estimate the future population and split between age groups.

Leisure

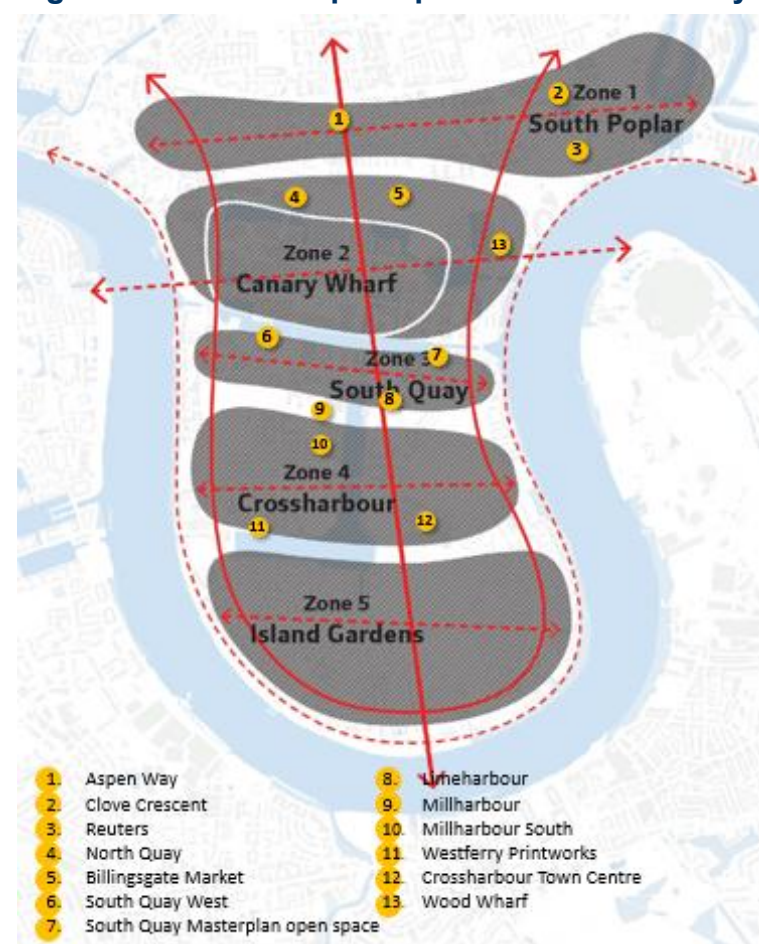
What infrastructure is needed?

- 4.119 In this section we deal with leisure and sport facilities. This includes public open spaces, comprising green/urban open space e.g. parks and public realm; as well as indoor and outdoor play space and sports space e.g. play space, sports halls and pitches.

Open space

- 4.120 The IDP details that LBTH has an existing open space deficit of 2/3 Victoria Parks. This is common within all London boroughs due to the lack of available land. The IDP has an extensive open space delivery plan which involves the development of 13 separate projects of open space in IoDSP. We therefore assume that open space will be delivered in line with the IDP list.
- 4.121 While there are no details in the IDP of the size of these areas of open space, LBTH have confirmed that 7.4ha is programmed in the following locations, shown on the figure below:
- 0.4 ha open space at Clove Crescent, Billingsgate Market, Crossharbour town centre, Reuters, North Quay, South Quay West, Millharbour, Millharbour South and South Quay Masterplan open spaces,
 - 0.8 ha open space at Westferry Printworks
 - 1ha open space at Limeharbour, Wood Wharf, Aspen Way

Figure 4.9 Planned open space across the study area



- 4.122 G&T estimate a cost of £370 per sqm for the open space/public realm facilities. The details of these areas of open space would need to be modified once the OAPF is developed. The size and costs detailed here are indicative. It is anticipated that areas of open space would come forward alongside developments, and the size of these facilities will therefore be dependent on the development it is related to.
- 4.123 We have also costed for land for the open space. This is because open space requires a significant quantum of land, and to include this cost makes the DIFS more accurate.

Play space

- 4.124 The GLA minimum play space benchmark is 10sqm of dedicated play space per child. We have therefore used this assumption in our calculations. The type of play space required is split by age group, as follows: Under 5 – Doorstep playable space, minimum size 100sqm; 0 – 11 – Local playable space, minimum size 300sqm; 12+ – Youth space, minimum size 200sqm.
- 4.125 The number of children from each age group has been taken from the GLA Yield Calculator and SYA Tool, and it is therefore in line with the population numbers for education.
- 4.126 Play spaces are an integral part of a residential development. Following discussions with GLA and LBTH, we have not identified playspace as primary infrastructure and instead treat it as a

secondary infrastructure which developers should be providing. We therefore do not assign any infrastructure cost to playspace.

Leisure

- 4.127 According to the IDP a standard sports hall consists of 4 badminton courts. A standard assumption when calculating the need for sports halls is 0.34 courts per 1,000 people. Sports England endorse dual use sports halls, i.e. allowing the public to use school sports halls out of school hours. However, due to the limited opening hours of such a facility they are considered to only provide the provision of 1 court (i.e. 25% of a sports hall). We recommend dual use sports halls, and based on the number of schools required in IoDSP, we have calculated that these could provide up to 15 courts. Considering this, in the maximum and high growth scenarios there would be a requirement for four additional sports halls, and in the low growth three additional sports halls. The IDP details the development of a minimum of 3-4 additional sports halls, as well as the Westferry Printworks leisure development. If we assume Westferry would provide at least 1 sports hall, then this caters for the growth coming forward in IoDSP.
- 4.128 The standard assumption for swimming pool provision is 11.48 sqm per 1,000 people. Therefore, for the maximum growth scenario there is a requirement for 1,217sqm and for the high growth 968sqm. This provision could be catered for through the development of one international swimming pool (25m x 50m: 1,250sqm). The IDP sets out the development of two additional swimming pools by 2020. It is considered that these swimming pools will cater for the population growth at IoDSP.

How can infrastructure be paid for?

- 4.129 The cost for open space facilities will be sought from S106 as a strategic cross-site cost. Play space costs have been assumed as part of build costs rather separate infrastructure items.

Notes, issues and recommendations

- 4.130 We assume that the delivery of open space will come forward as outlined in the IDP. This will be funded by S106 sought.
- 4.131 We assume that the play space we have calculated provision for will be located within areas of open space. All other areas of play space will be provided within developments, and as part of the development cost.
- 4.132 We assume that the majority of sports facilities will be co-located within education facilities. The additional provision required will be catered for through the sports hall and leisure developments in the IDP.
- 4.133 We assume that the two additional swimming pools to be developed in line with the IDP will cater for the growth in IoDSP.
- 4.134 We have provided costs for the land for open space, as this will make the DIFS more accurate. Land costs have not been provided for play space as those facilities will be located on open space. All other leisure facilities will be developed within the footprint of other developments, and as such the land cost will be part of the relevant developments costs.

- 4.135 Any land costs that we include in this study will be subject to change. Our cost estimates are based on the standard industrial land value of £7.491 million per hectare. This cost is not site specific and will therefore change when specific sites are selected for development. This land cost is here as a guide only.
- 4.136 The delivery assumptions adopted align with the relevant trajectories.

Community

What infrastructure is needed?

- 4.137 In this section we deal with community facilities. A common assumption adopted by local authorities is to provide 30sqm of library floorspace per 1,000 people. Based on the GLA Yield Calculator output and the above benchmark, there is a requirement for 2 libraries in IoDSP. However, in LBTH libraries are provided as part of Idea Stores.
- 4.138 Idea Stores include community facilities, adult learning spaces, as well as library facilities. The existing Idea Store in IoDSP is the Canary Wharf Idea Store. This provides a range of facilities and community groups, including:
- Job support sessions
 - Computer skills sessions
 - Arts and crafts community groups
 - Book clubs
- 4.139 We will be seeking to deliver all of these facilities within two additional Idea Stores.
- 4.140 We have also included in this section costs for the delivery of a street lighting replacement programme. We consider this to be contribute to improve community facilities and community safety. This is a borough-wide project, and so 20% of the cost has been attributed to the IoDSP.

How can infrastructure be paid for?

- 4.141 We assume that the community facilities would be paid for through S106 or CIL.

Notes, issues and recommendations

- 4.142 We have assumed that community, library and adult learning facilities can be provided within one Idea Store. Idea Stores are common throughout LBTH, and they all provide a similar range of facilities.

Project name	Primary education provision
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About the project The number of 4-10 year olds yielded in each scenario is different, and therefore there are different primary school requirements. For 1FE primary school it is assumed that one class has 30 pupils, and there are 7 years within the school, therefore 1FE school has the capacity for 210 pupils. We also

assume there is one nursery class of 26 pupils per FE. Therefore for 1FE primary there is the capacity for 236 pupils. For our development scenarios we recommend a mix of 2FE and 3FE schools. Our school delivery plan includes the facilities detailed in the LBTH IDP, as well as additional facilities. We have used as much information as we can from the IDP, therefore for proposed schools where the FE is not specified, we have made an assumption based on demand.

- | | |
|---|--|
| 50 Marsh Wall, 2FE | |
| - Wood Wharf, 2FE | |
| - 3 Millharbour, 2FE | |
| - Millharbour South, assumed 3FE | |
| - Crossharbour town centre, assumed 3FE | |
| - Limeharbour, assumed 3FE | |

Wa wasa informed by Simona Williams on 10/05/17 that there is also a JCF primary school allocated for the Dauteré citée. This is also within our delivery plan.

What priority?

- 1) essential adaptation
- 2) essential mitigation

Which lead organisation?

LBTH

Strategic/zone specific? Which zone?	Strategic cross-site
<p> 1. Strategic – the business has a strategic rationale for the investment 2. Zone specific – the business has a strategic rationale for the investment in this zone </p>	<p> 1. Strategic – the business has a strategic rationale for the investment 2. Cross-site – the business has a strategic rationale for the investment across sites </p>

Scenario	Total	2017/	2018/	2019/	2020/	2021/	2022/	2023/	2024/	2025/	2026/	2027/	2028/	2029/	2030/	2031/	2032/	2033/	2034/	2035/	2036/	2037/	2038/	2039/	2040/	2041/
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	(£000s)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
High growth scenario details for this scenario	The maximum growth scenario would generate 7,796 children aged 4-10. We recommend the delivery of four 2FE schools, and 10 3FE schools, which would provide capacity for 7,980 children. This therefore provides enough capacity for the primary school aged pupils. To meet the need for these places coming forward through the development trajectory we recommend the delivery of these facilities at the following delivery phases. 2017 - 2022: 2 x 2FE schools; 2 x 3FE schools 2022 - 2027: 1 x 2FE schools; 3 x 3FE schools 2027 - 2032: 2 x 3FE schools 2032 - 2037: 2 x 3FE schools 2037 - 2042: 1 x 2FE school; 1 x 3FE school																									
Gross cost (£000s)	165,516	8577	8577	8577	8577	8577	9001	9001	9001	9001	9001	6905	6905	6905	6905	6905	4892	4892	4892	4892	4892	3728	3728	3728	3728	3728
Cost attrib. to South Poplar (with PP) (£000s)	8097	1075	1075	1075	1075	1075	544	544	544	544	544	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Poplar (Potential Growth) (£000s)	23478	0	0	0	0	0	512	512	512	512	512	2145	2145	2145	2145	1121	1121	1121	1121	1121	919	919	919	919	919	919
Cost attrib. to Canary Wharf (with PP) (£000s)	25420	2838	2838	2838	2838	2838	2246	2246	2246	2246	2246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	12100	0	0	0	0	0	386	386	386	386	386	1558	1558	1558	1558	1558	476	476	476	476	476	0	0	0	0	0
Cost attrib. to South Quay (with PP) (£000s)	20154	2373	2373	2373	2373	2373	1657	1657	1657	1657	1657	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (Potential Growth) (£000s)	24633	0	0	0	0	0	1112	1112	1112	1112	1112	2245	2245	2245	2245	964	964	964	964	964	606	606	606	606	606	606
Cost attrib. to Crossharbour (with PP) (£000s)	11374	2077	2077	2077	2077	2077	198	198	198	198	198	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Crossharbour (Potential Growth) (£000s)	37561	0	0	0	0	0	2159	2159	2159	2159	2159	958	958	958	958	958	2262	2262	2262	2262	2133	2133	2133	2133	2133	2133
Cost attrib. to Island Gardens (with PP) (£000s)	1067	213	213	213	213	213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Island Gardens (Potential Growth) (£000s)	1632	0	0	0	0	0	187	187	187	187	187	0	0	0	0	0	70	70	70	70	70	70	70	70	70	70
Cost attrib. to other (£000s)	0																									
Mainstream funding assumed (£000s)	82758	4289	4289	4289	4289	4289	4501	4501	4501	4501	4501	3453	3453	3453	3453	3453	2446	2446	2446	2446	2446	1864	1864	1864	1864	1864
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (£000s)	9074	470	470	470	470	470	493	493	493	493	493	379	379	379	379	379	268	268	268	268	268	204	204	204	204	204
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (S106) (£000s)																										
CIL/S106 funding sought from developments (£000s)	73684	3818	3818	3818	3818	3818	4007	4007	4007	4007	4007	3074	3074	3074	3074	3074	2178	2178	2178	2178	2178	1659	1659	1659	1659	1659
Developer delivery (£000s)																										
Other funding sought (£000s)																										

Medium growth Project details for this scenario

places coming forward through the development trajectory we recommend the delivery of these facilities at the following delivery phases.

- | |
|---|
| 2017 - 2022: 2 x 2FE schools; 2 x 3FE schools |
| 2022 - 2027: 1 x 2FE schools; 3 x 3FE schools |
| 2027 - 2032: 2 x 3FE schools |
| 2032 - 2037: no delivery needed |
| 2037 - 2042: 1 x 2FE school, 1 x 3FE schools |

[illegible]

	Mainstream funding assumed (£000s)	69836	4852	4852	4852	4852	4308	4308	4308	4308	4308	2790	2790	2790	2790	2790	1205	1205	1205	1205	813	813	813	813			
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)	9074	630	630	630	630	630	560	560	560	560	560	362	362	362	362	362	157	157	157	157	157	106	106	106	106	106
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (£106) (£000s)																										
	CIL/£106 funding sought from developments (£000s)	60762	4221	4221	4221	4221	4221	3748	3748	3748	3748	3748	2427	2427	2427	2427	2427	1049	1049	1049	1049	1049	707	707	707	707	707
	Developer delivery (£000s)																										
	Other funding sought (£000s)																										
Low growth	Project details for this scenario	The low growth scenario would generate 5,273 children aged 4-10. We recommend the delivery of four 2FE schools, and 6 3FE schools, which would provide capacity for 5,460 children. This therefore provides enough capacity for the primary school aged pupils. To meet the need for these places coming forward through the development trajectory we recommend the delivery of these facilities at the following delivery phases. 2017 - 2022: 2 x 2FE schools 2022 - 2027: 1 x 2FE school; 4 x 3FE schools 2027 - 2032: 1 x 3FE school 2032 - 2037: 1 x 3FE school 2037 - 2042: 1 x 2FE school																									
	Gross cost (£000s)	113828	9142	9142	9142	9142	7796	7796	7796	7796	7796	4285	4285	4285	4285	4285	1179	1179	1179	1179	1179	363	363	363	363	363	
	Cost attrib. to South Poplar (with PP) (£000s)	17657	2359	2359	2359	2359	1172	1172	1172	1172	1172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to South Poplar (Potential Growth) (£000s)	7750	0	0	0	0	334	334	334	334	334	955	955	955	955	955	131	131	131	131	131	131	131	131	131	131	
	Cost attrib. to Canary Wharf (with PP) (£000s)	18565	2101	2101	2101	2101	1611	1611	1611	1611	1611	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	7861	0	0	0	0	671	671	671	671	671	902	902	902	902	902	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to South Quay (with PP) (£000s)	18652	2197	2197	2197	2197	1534	1534	1534	1534	1534	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to South Quay (Potential Growth) (£000s)	17799	0	0	0	0	1009	1009	1009	1009	1009	1884	1884	1884	1884	1884	544	544	544	544	544	122	122	122	122	122	
	Cost attrib. to Crossharbour (with PP) (£000s)	12921	2359	2359	2359	2359	225	225	225	225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	11545	0	0	0	0	1161	1161	1161	1161	1161	544	544	544	544	544	498	498	498	498	498	105	105	105	105	105	
	Cost attrib. to Island Gardens (with PP) (£000s)	628	126	126	126	126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	450	0	0	0	0	78	78	78	78	78	0	0	0	0	0	6	6	6	6	6	6	6	6	6	6	
	Cost attrib. to other (£000s)	0																									
	Mainstream funding assumed (£000s)	56914	4571	4571	4571	4571	4571	3898	3898	3898	3898	3898	2142	2142	2142	2142	2142	590	590	590	590	590	182	182	182	182	182
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)	9074	729	729	729	729	729	621	621	621	621	621	342	342	342	342	342	94	94	94	94	94	29	29	29	29	29
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)	47840	3842	3842	3842	3842	3842	3277	3277	3277	3277	3277	1801	1801	1801	1801	1801	496	496	496	496	496	153	153	153	153	153	
Developer delivery (£000s)																											
Other funding sought (£000s)																											
Secondary Education																											
Project name	Secondary and post 16 school facilities																										
Project ref	SE03																										
About the project	The number of 11-17 year olds yielded in each scenario is different, and therefore there are different secondary school requirements. Due to the number of children aged 11-17 coming out of the scenarios we have planned for secondary schools which include sixth forms. It is assumed that each class within a secondary school has 30 pupils, therefore a 6FE secondary school with sixth form will have capacity for 1,260 pupils. For those schools identified in the IDP, because they are meeting borough-wide needs, only 52% of the spaces (and therefore costs attributable to the study area) will be available to meet study area needs. Any provision in addition to this relates solely to the study area. Here we detail the number of secondary school buildings required to meet the capacity in the IoDSP. The cost here is for the buildings and facilities, not for land.																										
What priority?	2) essential mitigation																										
Which lead organisation?	LBTH																										
Project delivery risk	Strategic																										
Strategic/zone specific? Which zone?	Strategic cross-site																										
Scenario	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042	
High growth sc	Project details for this scenario	The maximum growth scenario would generate 4,850 children aged 11-17. We recommend the delivery of six additional 6FE secondary schools (Billingsgate Market, Westferry Printworks, Clove Crescent, London Dock and two additional sites). With the exception of the additional sites, all of these schools are recommended within the IDP. Where details were not provided, we had to make an assumption about the size of the school. These facilities will provided capacity for 5,141 pupils. To meet the need for these places coming forward through the development trajectory we recommend the delivery of these facilities at the following delivery phases. 2017 - 2022: 2x 6FE school (1310) 2022 - 2027: 2x 6FE school (1310) 2027 - 2032: 1 x 6FE school (1260) 2032 - 2037: no delivery necessary 2037 - 2042: 1 x 6FE school (1260) Westferry Printworks has planning permission and is being brought forward by the developer. We have therefore assumed that the cost of this project will be covered by s106 works-in-kind.																									
	Gross cost (£000s)	228,486	11840	11840	11840	11840	11840	12426	12426	12426	12426	9532	9532	9532	9532	9532	6753	6753	6753	6753	5146	5146	5146	5146	5146	5146	
	Cost attrib. to South Poplar (with PP) (£000s)	7303	970	970	970	970	970	491	491	491	491	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to South Poplar (Potential Growth) (£000s)	21174	0	0	0	0	0	461	461	461	461	1934	1934	1934	1934	1934	1011	1011	1011	1011	1011	829	829	829	829	829	
	Cost attrib. to Canary Wharf (with PP) (£000s)	22926	2560	2560	2560	2560	2025	2025	2025	2025	2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	10913	0	0	0	0	0	348	348	348	348	1405	1405	1405	1405	1405	429	429	429	429	429	0	0	0	0	0	
	Cost attrib. to South Quay (with PP) (£000s)	18176	2141	2141	2141	2141	2141	1495	1495	1495	1495	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to South Quay (Potential Growth) (£000s)	22216	0	0	0	0	0	1003	1003	1003	1003	2024	2024	2024	2024	2024	870	870	870	870	870	546	546	546	546	546	
	Cost attrib. to Crossharbour (with PP) (£000s)	10258	1873	1873	1873	1873	1873	179	179	179	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	33876	0	0	0	0	0	1947	1947	1947	1947	864	864	864	864	864	2040	2040	2040	2040	2040	1924	1924	1924	1924	1924	
	Cost attrib. to Island Gardens (with PP) (£000s)	963	193	193	193	193	193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	1472	0	0	0	0	0	169	169	169	169	169	0	0	0	0	63	63	63	63	63	63	63	63	63	63	
	Cost attrib. to other (£000s)	79208																									

Education

	Mainstream funding assumed (€000s)	74639	3868	3868	3868	3868	3868	4059	4059	4059	4059	4059	3114	3114	3114	3114	3114	2206	2206	2206	2206	2206	1681	1681	1681	1681	1681
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																										
	Unallocated dev. contrib. agreed (S106) (€000s)																										
	CIL/S106 funding sought from developments (€000s)	74639	3868	3868	3868	3868	3868	4059	4059	4059	4059	4059	3114	3114	3114	3114	3114	2206	2206	2206	2206	2206	1681	1681	1681	1681	1681
	Developer delivery (€000s)																										
	Other funding sought (€000s)																										
Medium growth	Project details for this scenario	The high growth scenario would generate 4,577 children aged 11-17. We recommend the delivery of six additional 6FE secondary schools (Billingsgate Market, Westferry Printworks, Clove Crescent, London Dock and two additional sites). With the exception of the additional sites, all of these schools are recommended within the IDP. Where details were not provided, we had to make an assumption about the size of the school. These facilities will provided capacity for 5,141 pupils. To meet the need for these places coming forward through the development trajectory we recommend the delivery of these facilities at the following delivery phases. 2017 - 2022: 2x 6FE school (1310) 2022 - 2027: 2x 6FE school (1310) 2027 - 2032: 1 x 6FE school (1260) 2032 - 2037: no delivery necessary 2037 - 2042: 1 x 6FE school (1260) Westferry Printworks has planning permission and is being brought forward by the developer. We have therefore assumed that the cost of this project will be covered by s106 works-in-kind.																									
	Gross cost (€000s)	228,486	15873	15873	15873	15873	15873	14093	14093	14093	14093	14093	9127	9127	9127	9127	9127	3943	3943	3943	3943	3943	2660	2660	2660	2660	2660
	Cost attrib. to South Poplar (with PP) (€000s)	9790	1300	1300	1300	1300	1300	658	658	658	658	658	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Poplar (Potential Growth) (€000s)	13395	0	0	0	0	0	361	361	361	361	361	1645	1645	1645	1645	1645	336	336	336	336	336	336	336	336	336	336
	Cost attrib. to Canary Wharf (with PP) (€000s)	30734	3432	3432	3432	3432	3432	2715	2715	2715	2715	2715	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Canary Wharf (Potential Growth) (€000s)	8952	0	0	0	0	0	0	0	0	0	0	0	1790	1790	1790	1790	1790	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Quay (with PP) (€000s)	24367	2870	2870	2870	2870	2870	2004	2004	2004	2004	2004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Quay (Potential Growth) (€000s)	20797	0	0	0	0	0	1106	1106	1106	1106	1106	1816	1816	1816	1816	1816	1038	1038	1038	1038	1038	200	200	200	200	200
	Cost attrib. to Crossharbour (with PP) (€000s)	13752	2511	2511	2511	2511	2511	239	239	239	239	239	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Crossharbour (Potential Growth) (€000s)	25043	0	0	0	0	0	1945	1945	1945	1945	1945	712	712	712	712	712	1176	1176	1176	1176	1176	1176	1176	1176	1176	1176
	Cost attrib. to Island Gardens (with PP) (€000s)	1291	258	258	258	258	258	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Island Gardens (Potential Growth) (€000s)	1157	0	0	0	0	0	180	180	180	180	180	0	0	0	0	0	26	26	26	26	26	26	26	26	26	26
	Cost attrib. to other (€000s)	79208																									
	Mainstream funding assumed (€000s)	74639	5185	5185	5185	5185	5185	4604	4604	4604	4604	4604	2982	2982	2982	2982	2982	1288	1288	1288	1288	1288	869	869	869	869	869
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																										
	Unallocated dev. contrib. agreed (S106) (€000s)																										
	CIL/S106 funding sought from developments (€000s)	74639	5185	5185	5185	5185	5185	4604	4604	4604	4604	4604	2982	2982	2982	2982	2982	1288	1288	1288	1288	1288	869	869	869	869	869
	Developer delivery (€000s)																										
	Other funding sought (€000s)																										
Low growth	Project details for this scenario	The Low Growth scenario would generate 3,422 children aged 11-17. We recommend the delivery of five additional 6FE secondary schools (Billingsgate Market, Westferry Printworks, Clove Crescent, London Dock and one additional site). With the exception of the additional site, all of these schools are recommended within the IDP. Where details were not provided, we had to make an assumption about the size of the school. These facilities will provided capacity for 3,881 pupils. To meet the need for these places coming forward through the development trajectory we recommend the delivery of these facilities at the following delivery phases. 2017 - 2022: 2x 6FE school (1310) 2022 - 2027: 2x 6FE school (1310) 2027 - 2032: no delivery necessary 2032 - 2037: no delivery necessary 2037 - 2042: 1 x 6FE school (1260) Westferry Printworks has planning permission and is being brought forward by the developer. We have therefore assumed that the cost of this project will be covered by s106 works-in-kind.																									
	Gross cost (€000s)	190,405	15292	15292	15292	15292	15292	13041	13041	13041	13041	13041	7168	7168	7168	7168	7168	1973	1973	1973	1973	1973	608	608	608	608	608
	Cost attrib. to South Poplar (with PP) (€000s)	17249	2305	2305	2305	2305	2305	1145	1145	1145	1145	1145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Poplar (Potential Growth) (€000s)	7570	0	0	0	0	0	326	326	326	326	326	932	932	932	932	932	128	128	128	128	128	128	128	128	128	128
	Cost attrib. to Canary Wharf (with PP) (€000s)	18136	2053	2053	2053	2053	2053	1574	1574	1574	1574	1574	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Canary Wharf (Potential Growth) (€000s)	7680	0	0	0	0	0	655	655	655	655	655	881	881	881	881	881	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Quay (with PP) (€000s)	18221	2146	2146	2146	2146	2146	1498	1498	1498	1498	1498	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Quay (Potential Growth) (€000s)	17387	0	0	0	0	0	986	986	986	986	986	1841	1841	1841	1841	1841	532	532	532	532	532	119	119	119	119	119
	Cost attrib. to Crossharbour (with PP) (€000s)	12622	2305	2305	2305	2305	2305	220	220	220	220	220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Crossharbour (Potential Growth) (€000s)	11278	0	0	0	0	0	1135	1135	1135	1135	1135	532	532	532	532	532	487	487	487	487	487	102	102	102	102	102
	Cost attrib. to Island Gardens (with PP) (€000s)	613	123	123	123	123	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Island Gardens (Potential Growth) (€000s)	440	0	0	0	0	0	77	77	77	77	77	0	0	0	0	0	6	6	6	6	6	6	6	6	6	6
	Cost attrib. to other (€000s)	79208																									
	Mainstream funding assumed (€000s)	55598	4465	4465	4465	4465	4465	3808	3808	3808	3808	3808	2093	2093	2093	2093	2093	576	576	576	576	576	178	178	178	178	178
	Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																										
	Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																										
	Unallocated dev. contrib. agreed (S106) (€000s)																										
	CIL/S106 funding sought from developments (€000s)	55598	4465	4465	4465	4465	4465	3808	3808	3808	3808	3808	2093	2093	2093	2093	2093	576	576	576	576	576	178	178	178	178	178
	Developer delivery (€000s)																										
	Other funding sought (€000s)																										

Education

Project name	LAND - Secondary and post 16 school																									
Project ref	SE04																									
About the project	As secondary schools are considered to need a significant quantum of land we include the cost of land for the secondary school facilities detailed in SE03. The LBTH Draft Site Selection Method Note (2016) details that a secondary school requires 1.5 hectares of land. Our research of similar sized schools in LBTH confirms that this quantum of land is appropriate. As with SE03 we exclude costs for Westferry Printworks as this land will be paid for by the developer.																									
What priority?	2) essential mitigation																									
Which lead organisation?	LBTH																									
Project delivery risk	<div></div>																									
Strategic/zone specific? Which zone?	Strategic cross-site																									
Scenario	Total (£000s)	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	2035/2036	2036/2037	2037/2038	2038/2039	2039/2040	2040/2041	2041/2042
High growth sc	Project details for this scenario																									
	Here we detail the land costs for five additional 6FE secondary schools (Billingsgate Market, Clove Crescent, London Dock and the two additional sites - we do not cost for land for Westferry Printworks as this has planning permission and is being brought forward by the developer, this therefore be funded by the developer), in line with the delivery plan detailed in SE03. For the IDP sites (Billingsgate, Clove Crescent and London Dock), only 52% of the land cost is attributed to the study area because only 52% of the places (655 places) will be for study area residents.																									
Gross cost (£000s)	67,419	3494	3494	3494	3494	3494	3666	3666	3666	3666	3666	2813	2813	2813	2813	2813	1993	1993	1993	1993	1993	1518	1518	1518	1518	1518
Cost attrib. to South Poplar (with PP) (£000s)	2243	298	298	298	298	298	151	151	151	151	151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Poplar (Potential Growth) (£000s)	6503	0	0	0	0	0	142	142	142	142	142	594	594	594	594	310	310	310	310	310	254	254	254	254	254	254
Cost attrib. to Canary Wharf (with PP) (£000s)	7041	786	786	786	786	786	622	622	622	622	622	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	3352	0	0	0	0	0	107	107	107	107	107	431	431	431	431	132	132	132	132	132	0	0	0	0	0	0
Cost attrib. to South Quay (with PP) (£000s)	5582	657	657	657	657	657	459	459	459	459	459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (Potential Growth) (£000s)	6823	0	0	0	0	0	308	308	308	308	308	622	622	622	622	267	267	267	267	267	168	168	168	168	168	168
Cost attrib. to Crossharbour (with PP) (£000s)	3150	575	575	575	575	575	55	55	55	55	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Crossharbour (Potential Growth) (£000s)	10404	0	0	0	0	0	598	598	598	598	598	265	265	265	265	265	626	626	626	626	626	591	591	591	591	591
Cost attrib. to Island Gardens (with PP) (£000s)	296	59	59	59	59	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Island Gardens (Potential Growth) (£000s)	452	0	0	0	0	0	52	52	52	52	52	0	0	0	0	0	19	19	19	19	19	19	19	19	19	19
Cost attrib. to other (£000s)	21574																									
Mainstream funding assumed (£000s)	22922	1188	1188	1188	1188	1188	1247	1247	1247	1247	1247	956	956	956	956	956	678	678	678	678	678	516	516	516	516	516
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)	22922	1188	1188	1188	1188	1188	1247	1247	1247	1247	1247	956	956	956	956	956	678	678	678	678	678	516	516	516	516	516
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Medium growth	Project details for this scenario																									
	Here we detail the land costs for five additional 6FE secondary schools (Billingsgate Market, Clove Crescent, London Dock and the two additional sites - we do not cost for land for Westferry Printworks as this has planning permission and is being brought forward by the developer, this therefore be funded by the developer), in line with the delivery plan detailed in SE03. For the IDP sites (Billingsgate, Clove Crescent and London Dock), only 52% of the land cost is attributed to the study area because only 52% of the places (655 places) will be for study area residents.																									
Gross cost (£000s)	67,419	4684	4684	4684	4684	4158	4158	4158	4158	4158	2693	2693	2693	2693	1164	1164	1164	1164	1164	1164	785	785	785	785	785	785
Cost attrib. to South Poplar (with PP) (£000s)	3007	399	399	399	399	399	202	202	202	202	202	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Poplar (Potential Growth) (£000s)	4114	0	0	0	0	0	111	111	111	111	111	505	505	505	505	103	103	103	103	103	103	103	103	103	103	103
Cost attrib. to Canary Wharf (with PP) (£000s)	9439	1054	1054	1054	1054	1054	834	834	834	834	834	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	2749	0	0	0	0	0	0	0	0	0	0	550	550	550	550	550	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (with PP) (£000s)	7483	881	881	881	881	881	615	615	615	615	615	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (Potential Growth) (£000s)	6387	0	0	0	0	0	340	340	340	340	340	558	558	558	558	319	319	319	319	319	61	61	61	61	61	61
Cost attrib. to Crossharbour (with PP) (£000s)	4223	771	771	771	771	771	74	74	74	74	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Crossharbour (Potential Growth) (£000s)	7691	0	0	0	0	0	597	597	597	597	597	219	219	219	219	361	361	361	361	361	361	361	361	361	361	361
Cost attrib. to Island Gardens (with PP) (£000s)	396	79	79	79	79	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Island Gardens (Potential Growth) (£000s)	355	0	0	0	0	0	55	55	55	55	55	0	0	0	0	8	8	8	8	8	8	8	8	8	8	8
Cost attrib. to other (£000s)	21574																									
Mainstream funding assumed (£000s)	22922	1592	1592	1592	1592	1592	1414	1414	1414	1414	1414	916	916	916	916	396	396	396	396	396	396	267	267	267	267	267
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (£106) (£000s)																										
CIL/£106 funding sought from developments (£000s)	22922	1592	1592	1592	1592	1592	1414	1414	1414	1414	1414	916	916	916	916	396	396	396	396	396	396	267	267	267	267	267
Developer delivery (£000s)																										
Other funding sought (£000s)																										
Low growth	Project details for this scenario																									
	Here we detail the land costs for four additional 6FE secondary schools (Billingsgate Market, Clove Crescent, London Dock and the one additional site - we do not cost for land for Westferry Printworks as this has planning permission and is being brought forward by the developer, this therefore be funded by the developer), in line with the delivery plan detailed in SE03. For the IDP sites (Billingsgate, Clove Crescent and London Dock), only 52% of the land cost is attributed to the study area because only 52% of the places (655 places) will be for study area residents.																									
Gross cost (£000s)	56183	4512	4512	4512	4512	3848	3848	3848	3848	3848	3848	2115	2115	2115	2115	2115	582	582	582	582	179	179	179	179	179	179
Cost attrib. to South Poplar (with PP) (£000s)	5369	717	717	717	717	717	356	356	356	356	356	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Poplar (Potential Growth) (£000s)	2356	0	0	0	0	0	101	101	101	101	101	290	290	290	290	290	40	40	40	40	40	40	40	40	40	40
Cost attrib. to Canary Wharf (with PP) (£000s)	5644	639	639	639	639	639	490	490	490	490	490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	2390	0	0	0	0	0	204	204	204	204	204	274	274	274	274	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (with PP) (£000s)	5671	668	668	668	668	668	466	466	466	466	466	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (Potential Growth) (£000s)	5412	0	0	0	0	0	307	307	307	307	307	573	573	573	573	166	166	166	166	166	37	37	37	37	37	37
Cost attrib. to Crossharbour (with PP) (£000s)	3928	717	717	717	717	717	68	68	68	68	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Crossharbour (Potential Growth) (£000s)	3510	0	0	0	0	0	353	353	353	353	353	166	166	166	166	152	152	152	152	152	32	32	32	32	32	32
Cost attrib. to Island Gardens (with PP) (£000s)	191	38	38	38	38	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Island Gardens (Potential Growth) (£000s)	137	0	0	0	0	0	24	24	24	24	24	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2
Cost attrib. to other (£000s)	21574																									

Education

Mainstream funding assumed (£000s)	17304	1390	1390	1390	1390	1390	1185	1185	1185	1185	1185	651	651	651	651	651	179	179	179	179	179	55	55	55	55	55
Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																										
Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																										
Unallocated dev. contrib. agreed (\$106) (£000s)																										
CIL/\$106 funding sought from developments (£000s)	17304	1390	1390	1390	1390	1390	1185	1185	1185	1185	1185	651	651	651	651	651	179	179	179	179	179	55	55	55	55	55
Developer delivery (£000s)																										
Other funding sought (£000s)																										

Fire, Ambulance, Police, CCTV

Project name	CCTV Provision																									
Project ref	SES01																									
About the project	Borough-wide CCTV facilities will be delivered in line with the LBTH IDP. Of relevance to the development in IOD is the upgrading of CCTV Recording System, due for delivery in 2017. In line with the IDP, we have assumed that the CCTV improvement works will be completed in 2017. No additional supporting facilities will be required, instead the existing control room in the town hall will be sufficient to monitor the CCTV network. It is assumed that developers will provide at their cost (likely to be de minimis) CCTV cameras which operate wirelessly and connect to the monitoring suite at their own developments. We assume these additional cameras themselves would come through planning permissions, and so be absorbed within the build cost of the development as a whole. We have therefore not broken out a separate cost or funding line for this provision.																									
	The cost detailed here is taken from the Infrastructure Delivery Plan for the whole borough. We have attributed 20% of this cost to the IoD based on the proportion of the total LBTH land that is IoD. LBTH is 19.77 sq km, IoD is 4.11 sq km, that is approximately 20% of the total LBTH land area.																									
What priority?	3) high priority																									
Which lead organisation?	LBTH																									
Project delivery risk	Strategic cross-site																									
Strategic/zone specific? Which zone?																										
Scenario	Total (£000s)	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	2035/2036	2036/2037	2037/2038	2038/2039	2039/2040	2040/2041	2041/2042
High growth scenario	Project details for this scenario	The delivery of CCTV facilities is in line with the IDP. We assume that additional CCTV will be provided by developers through their developments. Therefore the CCTV delivery scenario is the same for all growth scenarios.																								
	Gross cost (£000s)	2930	2930																							
	Cost attrib. to South Poplar (with PP) (£000s)	117	117																							
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	117	117																							
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	117	117																							
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	117	117																							
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	117	117																							
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	2344	2344																							
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	586	586																							
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Medium growth scenario	Project details for this scenario	The delivery of CCTV facilities is in line with the IDP. We assume that additional CCTV will be provided by developers through their developments. Therefore the CCTV delivery scenario is the same for all growth scenarios.																								
	Gross cost (£000s)	2930	2930																							
	Cost attrib. to South Poplar (with PP) (£000s)	117	117																							
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0																								
	Cost attrib. to Canary Wharf (with PP) (£000s)	117	117																							
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0																								
	Cost attrib. to South Quay (with PP) (£000s)	117	117																							
	Cost attrib. to South Quay (Potential Growth) (£000s)	0																								
	Cost attrib. to Crossharbour (with PP) (£000s)	117	117																							
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	0																								
	Cost attrib. to Island Gardens (with PP) (£000s)	117	117																							
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	0																								
	Cost attrib. to other (£000s)	2344	2344																							
	Mainstream funding assumed (£000s)																									
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																									
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																									
	Unallocated dev. contrib. agreed (£106) (£000s)																									
	CIL/£106 funding sought from developments (£000s)	586	586																							
	Developer delivery (£000s)																									
	Other funding sought (£000s)																									
Low growth scenario	Project details for this scenario	The delivery of CCTV facilities is in line with the IDP. We assume that additional CCTV will be provided by developers through their developments. Therefore the CCTV delivery scenario is the same for all growth scenarios.																								
	Gross cost (£000s)	2930	2930																							
	Cost attrib. to South Poplar (with PP) (£000s)	117	117																							
	Cost attrib. to South Poplar (Potential Growth) (£000s)	0	0																							
	Cost attrib. to Canary Wharf (with PP) (£000s)	117	117																							
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	0	0																							
	Cost attrib. to South Quay (with PP) (£000s)	117	117																							
	Cost attrib. to South Quay (Potential Growth) (£000s)	0	0																							
	Cost attrib. to Crossharbour (with PP) (£000s)	117	117																							

Fire, Ambulance, Police, CCTV

[illegible]

Fire, Ambulance, Police, CCTV

[illegible]

Fire, Ambulance, Police, CCTV

[illegible]

Fire, Ambulance, Police, CCTV

Medium growth	Project details for this scenario	In LBTH there are 50,819 people per station. The estimated population in the Medium Growth scenario is 81,754, therefore there is a need for 1.61 fire stations. As there are two existing fire station in IoDSP, we are recommending the development of one additional high capacity fire station, of 2,500sqm. Based on the population trajectory, the fire station is required in delivery phase 2.				
	Gross cost (£000s)	12584	2517	2517	2517	2517
	Cost attrib. to South Poplar (with PP) (£000s)	0				
	Cost attrib. to South Poplar (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to Canary Wharf (with PP) (£000s)	0				
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to South Quay (with PP) (£000s)	0				
	Cost attrib. to South Quay (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to Crossharbour (with PP) (£000s)	0				
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to Island Gardens (with PP) (£000s)	0				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to other (£000s)	0				
	Mainstream funding assumed (£000s)	4195	839	839	839	839
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)					
	Unallocated dev. contrib. agreed (£106) (£000s)					
	CIL/£106 funding sought from developments (£000s)	8389	1678	1678	1678	1678
	Developer delivery (£000s)					
	Other funding sought (£000s)					
Low growth	Project details for this scenario	In LBTH there are 50,819 people per station. The estimated population in the Low Growth scenario is 72,641, therefore there is a need for 1.43 fire stations. As there are two existing fire stations in IoDSP, we are recommending the development of one additional high capacity fire station, of 2,500sqm. Based on the population trajectory, the fire station is required in delivery phase 2.				
	Gross cost (£000s)	12584	2517	2517	2517	2517
	Cost attrib. to South Poplar (with PP) (£000s)	0				
	Cost attrib. to South Poplar (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to Canary Wharf (with PP) (£000s)	0				
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to South Quay (with PP) (£000s)	0				
	Cost attrib. to South Quay (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to Crossharbour (with PP) (£000s)	0				
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to Island Gardens (with PP) (£000s)	0				
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	2517	503	503	503	503
	Cost attrib. to other (£000s)	0				
	Mainstream funding assumed (£000s)	4195	839	839	839	839
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)					
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)					
	Unallocated dev. contrib. agreed (£106) (£000s)					
	CIL/£106 funding sought from developments (£000s)	8389	1678	1678	1678	1678
	Developer delivery (£000s)					
	Other funding sought (£000s)					

Health services

Project name	Health Provision																										
Project ref	H01																										
About the project	<p>The IDP details seven site allocations for new/re-provided GP practices which we believe will be sufficient to cater for the additional population coming forward in the IoDSP. These projects are:</p> <ul style="list-style-type: none">- Wood Wharf - development of new health facility (10GPs)- Crossharbour - reprovision of existing 8 GP facility (10GP - 2GP net additional)- Millharbour - development of new health facility (10GPs)- Marsh Wall West - development of new health facility (10GPs)- Marsh Wall East - development of new health facility (10GPs)- Hercules Wharf - development of new health facility (10GPs)- Millharbour South - development of new health facility (10GPs)																										
What priority?	2) essential mitigation																										
Which lead organisation?	NHS/LBTH																										
Project delivery risk																											
Strategic/zone specific? Which zone?	Strategic cross-site																										
Scenario	Total (£000s)	% apportionment	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	2029/2030	2030/2031	2031/2032	2032/2033	2033/2034	2034/2035	2035/2036	2036/2037	2037/2038	2038/2039	2039/2040	2040/2041	2041/2042
High growth sc	Project details for this scenario																										
	<p>In the High Growth scenario there is a need for 58.9 additional GPs. We recommend delivering the seven projects outlined in the IDP, with each facility providing space for 10 GPs. This will result in 59 additional GPs for the additional IoDSP population. We recommend the delivery of these facilities in the following delivery phases:</p> <p>2017 - 2022: Wood Wharf, Millharbour, and Crossharbour (22 GPs)</p> <p>2022 - 2027: Marsh Wall East and Marsh Wall West (20 GPs)</p> <p>2027 - 2032: Hercules Wharf (10 GPs)</p> <p>2032 - 2037: Millharbour South (10 GPs)</p> <p>2037 - 2042: no delivery necessary</p>																										
Gross cost (£000s)	28494	1477	1477	1477	1477	1477	1550	1550	1550	1550	1550	1189	1189	1189	1189	1189	842	842	842	842	842	642	642	642	642	642	642
Cost attrib. to South Poplar (with PP) (£000s)	1394	26%	185	185	185	185	185	94	94	94	94	94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Poplar (Potential Growth) (£000s)	4042	74%	0	0	0	0	0	88	88	88	88	369	369	369	369	369	193	193	193	193	193	158	158	158	158	158	158
Cost attrib. to Canary Wharf (with PP) (£000s)	4376	68%	489	489	489	489	489	387	387	387	387	387	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	2083	32%	0	0	0	0	0	67	67	67	67	268	268	268	268	268	82	82	82	82	82	0	0	0	0	0	0
Cost attrib. to South Quay (with PP) (£000s)	3470	45%	409	409	409	409	409	285	285	285	285	285	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (Potential Growth) (£000s)	4241	55%	0	0	0	0	0	191	191	191	191	191	386	386	386	386	166	166	166	166	166	104	104	104	104	104	104
Cost attrib. to Crossharbour (with PP) (£000s)	1958	23%	358	358	358	358	358	34	34	34	34	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Crossharbour (Potential Growth) (£000s)	6466	77%	0	0	0	0	0	372	372	372	372	372	165	165	165	165	389	389	389	389	389	367	367	367	367	367	367
Cost attrib. to Island Gardens (with PP) (£000s)	184	40%	37	37	37	37	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Island Gardens (Potential Growth) (£000s)	281	60%	0	0	0	0	0	32	32	32	32	32	0	0	0	0	0	12	12	12	12	12	12	12	12	12	12
Cost attrib. to other (£000s)	0																										
Mainstream funding assumed (£000s)	19535	5	581	581	581	581	581	654	654	654	654	654	1189	1189	1189	1189	1189	842	842	842	842	842	642	642	642	642	642
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (£106) (£000s)	8959		896	896	896	896	896	896	896	896	896	896															
CIL/£106 funding sought from developments (£000s)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Developer delivery (£000s)																											
Other funding sought (£000s)																											
Medium growth	Project details for this scenario																										
	<p>In the Medium Growth scenario there is a need for 45.4 additional GPs. We recommend delivering six of the seven projects outlined in the IDP (exclude Millharbour South), with each facility providing space for 10 GPs. This will result in 46 additional GPs for the additional IoDSP population. We recommend the delivery of these facilities in the following delivery phases:</p> <p>2017 - 2022: Woodwharf, Millharbour, and Crossharbour (22 GPs)</p> <p>2022 - 2027: Marsh Wall East and Marsh Wall West (20 GPs)</p> <p>2027 - 2032: no delivery necessary</p> <p>2032 - 2037: Hercules Wharf (10 GPs)</p> <p>2037 - 2042: no delivery necessary</p>																										
Gross cost (£000s)	23745	1650	1650	1650	1650	1650	1465	1465	1465	1465	1465	949	949	949	949	949	410	410	410	410	410	276	276	276	276	276	276
Cost attrib. to South Poplar (with PP) (£000s)	1557	42%	207	207	207	207	207	105	105	105	105	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Poplar (Potential Growth) (£000s)	2131	58%	0	0	0	0	0	57	57	57	57	57	262	262	262	262	54	54	54	54	54	54	54	54	54	54	54
Cost attrib. to Canary Wharf (with PP) (£000s)	4889	77%	546	546	546	546	546	432	432	432	432	432	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Canary Wharf (Potential Growth) (£000s)	1424	23%	0	0	0	0	0	0	0	0	0	0	285	285	285	285	285	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (with PP) (£000s)	3876	54%	456	456	456	456	456	319	319	319	319	319	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (Potential Growth) (£000s)	3308	46%	0	0	0	0	0	176	176	176	176	176	289	289	289	289	165	165	165	165	165	32	32	32	32	32	32
Cost attrib. to Crossharbour (with PP) (£000s)	2187	35%	399	399	399	399	399	38	38	38	38	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Crossharbour (Potential Growth) (£000s)	3983	65%	0	0	0	0	0	309	309	309	309	309	113	113	113	113	187	187	187	187	187	187	187	187	187	187	187
Cost attrib. to Island Gardens (with PP) (£000s)	205	53%	41	41	41	41	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Island Gardens (Potential Growth) (£000s)	184	47%	0	0	0	0	0	29	29	29	29	29	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4
Cost attrib. to other (£000s)	0																										
Mainstream funding assumed (£000s)	14786		754	754	754	754	754	569	569	569	569	569	949	949	949	949	949	410	410	410	410	410	276	276	276	276	276
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (£106) (£000s)	8959		896	896	896	896	896	896	896	896	896	896															
CIL/£106 funding sought from developments (£000s)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Developer delivery (£000s)																											
Other funding sought (£000s)																											

Health services

Low growth	Project details for this scenario		In the Low Growth scenario there is a need for 36 additional GPs. We recommend delivering five of the seven projects outlined in the IDP (exclude Millharbour South), with each facility providing space for 10 GPs. This will result in 36 additional GPs for the additional IoD5P population. We recommend the delivery of these facilities in the following delivery phases: 2017 - 2022: Woodwharf, Millharbour, and Crossharbour (22 GPs) 2022 - 2027: Marsh Wall East (10 GPs) 2027 - 2032: no delivery necessary 2032 - 2037: Hercules Wharf (10 GPs) 2037 - 2042: no delivery necessary																						
	Gross cost (£000s)	18996	1526	1526	1526	1526	1301	1301	1301	1301	1301	715	715	715	715	715	197	197	197	197	197	61	61	61	61
	Cost attrib. to South Poplar (with PP) (£000s)	2947	69%	394	394	394	394	196	196	196	196	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Poplar (Potential Growth) (£000s)	1293	31%	0	0	0	0	56	56	56	56	159	159	159	159	159	22	22	22	22	22	22	22	22	22
	Cost attrib. to Canary Wharf (with PP) (£000s)	3098	70%	351	351	351	351	269	269	269	269	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)	1312	30%	0	0	0	0	112	112	112	112	150	150	150	150	150	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Quay (with PP) (£000s)	3113	51%	367	367	367	367	256	256	256	256	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to South Quay (Potential Growth) (£000s)	2970	49%	0	0	0	0	168	168	168	168	314	314	314	314	314	91	91	91	91	91	20	20	20	20
	Cost attrib. to Crossharbour (with PP) (£000s)	2156	53%	394	394	394	394	38	38	38	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Crossharbour (Potential Growth) (£000s)	1927	47%	0	0	0	0	194	194	194	194	91	91	91	91	91	83	83	83	83	83	18	18	18	18
	Cost attrib. to Island Gardens (with PP) (£000s)	105	58%	21	21	21	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Cost attrib. to Island Gardens (Potential Growth) (£000s)	75	42%	0	0	0	0	13	13	13	13	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	Cost attrib. to other (£000s)	0																							
	Mainstream funding assumed (£000s)	10037		630	630	630	630	405	405	405	405	405	715	715	715	715	197	197	197	197	197	61	61	61	61
	Dev. contrib.agreed for South Poplar (\$106/ \$106+CIL works-in-kind) (£000s)																								
	Dev. contrib.agreed for Canary Wharf (\$106/ \$106+CIL works-in-kind) (£000s)																								
	Dev. contrib.agreed for South Quay (\$106/ \$106+CIL works-in-kind) (£000s)																								
	Dev. contrib.agreed for Crossharbour (\$106/ \$106+CIL works-in-kind) (£000s)																								
	Dev. contrib.agreed for Island Gardens (\$106/ \$106+CIL works-in-kind) (£000s)																								
	Unallocated dev. contrib. agreed (\$106) (£000s)	8959		896	896	896	896	896	896	896	896	896													
	CIL/\$106 funding sought from developments (£000s)																								
	Developer delivery (£000s)																								
	Other funding sought (£000s)																								

Leisure and sport

Project name		Leisure Provision																									
Project ref		L01																									
About the project		In line with the IDP this will deliver the following projects: • 4 additional sports halls in the maximum and high scenarios • 3 additional sports halls in the low scenario																									
What priority?		2) essential mitigation																									
Which lead organisation?		LBTH																									
Project delivery risk																											
Strategic/zone specific? Which zone?		Strategic cross-site																									
Scenario		Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
High growth scenario		Project details for this scenario																									
		Four sports halls																									
Gross cost (£000s)		10250	1464	1464	1464	1464	1464	1464	1464																		
Cost attrib. to South Poplar (with PP) (£000s)		513	73	73	73	73	73	73	73																		
Cost attrib. to South Poplar (Potential Growth) (£000s)		1538	220	220	220	220	220	220	220																		
Cost attrib. to Canary Wharf (with PP) (£000s)		513	73	73	73	73	73	73	73																		
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		1538	220	220	220	220	220	220	220																		
Cost attrib. to South Quay (with PP) (£000s)		513	73	73	73	73	73	73	73																		
Cost attrib. to South Quay (Potential Growth) (£000s)		1538	220	220	220	220	220	220	220																		
Cost attrib. to Crossharbour (with PP) (£000s)		513	73	73	73	73	73	73	73																		
Cost attrib. to Crossharbour (Potential Growth) (£000s)		1538	220	220	220	220	220	220	220																		
Cost attrib. to Island Gardens (with PP) (£000s)		513	73	73	73	73	73	73	73																		
Cost attrib. to Island Gardens (Potential Growth) (£000s)		1538	220	220	220	220	220	220	220																		
Cost attrib. to other (£000s)		0																									
Mainstream funding assumed (£000s)																											
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (£106) (£000s)																											
CIL/£106 funding sought from developments (£000s)		10250	1464	1464	1464	1464	1464	1464	1464																		
Developer delivery (£000s)																											
Other funding sought (£000s)																											
Medium growth scenario		Project details for this scenario																									
		Four sports halls																									
Gross cost (£000s)		8200	1171	1171	1171	1171	1171	1171	1171																		
Cost attrib. to South Poplar (with PP) (£000s)		410	59	59	59	59	59	59	59																		
Cost attrib. to South Poplar (Potential Growth) (£000s)		1230	176	176	176	176	176	176	176																		
Cost attrib. to Canary Wharf (with PP) (£000s)		410	59	59	59	59	59	59	59																		
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		1230	176	176	176	176	176	176	176																		
Cost attrib. to South Quay (with PP) (£000s)		410	59	59	59	59	59	59	59																		
Cost attrib. to South Quay (Potential Growth) (£000s)		1230	176	176	176	176	176	176	176																		
Cost attrib. to Crossharbour (with PP) (£000s)		410	59	59	59	59	59	59	59																		
Cost attrib. to Crossharbour (Potential Growth) (£000s)		1230	176	176	176	176	176	176	176																		
Cost attrib. to Island Gardens (with PP) (£000s)		410	59	59	59	59	59	59	59																		
Cost attrib. to Island Gardens (Potential Growth) (£000s)		1230	176	176	176	176	176	176	176																		
Cost attrib. to other (£000s)		0																									
Mainstream funding assumed (£000s)																											
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																											
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																											
Unallocated dev. contrib. agreed (£106) (£000s)																											
CIL/£106 funding sought from developments (£000s)		8200	1171	1171	1171	1171	1171	1171	1171																		
Developer delivery (£000s)																											
Other funding sought (£000s)																											
Low growth scenario		Project details for this scenario																									
		Three sports halls																									
Gross cost (£000s)		6150	879	879	879	879	879	879	879																		
Cost attrib. to South Poplar (with PP) (£000s)		308	44	44	44	44	44	44	44																		
Cost attrib. to South Poplar (Potential Growth) (£000s)		923	132	132	132	132	132	132	132																		
Cost attrib. to Canary Wharf (with PP) (£000s)		308	44	44	44	44	44	44	44																		
Cost attrib. to Canary Wharf (Potential Growth) (£000s)		923	132	132	132	132	132	132	132																		
Cost attrib. to South Quay (with PP) (£000s)		308	44	44	44	44	44	44	44																		
Cost attrib. to South Quay (Potential Growth) (£000s)		923	132	132	132	132	132	132	132																		
Cost attrib. to Crossharbour (with PP) (£000s)		308	44	44	44	44	44	44	44																		
Cost attrib. to Crossharbour (Potential Growth) (£000s)		923	132	132	132	132	132	132	132																		
Cost attrib. to Island Gardens (with PP) (£000s)		308	44	44	44	44	44	44	44																		
Cost attrib. to Island Gardens (Potential Growth) (£000s)		923	132	132	132	132	132	132	132																		
Cost attrib. to other (£000s)		0																									

[illegible]

Leisure and sport

	Mainstream funding assumed (E000s)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Leisure and sport

Medium growt Project details for this scenario																									
Gross cost (€000s)	28466	1978	1978	1978	1978	1978	1756	1756	1756	1756	1756	1137	1137	1137	1137	1137	491	491	491	491	491	331	331	331	331
Cost attrib. to South Poplar (with PP) (€000s)	1867	248	248	248	248	248	125	125	125	125	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Poplar (Potential Growth) (€000s)	2554	0	0	0	0	0	69	69	69	69	69	314	314	314	314	314	64	64	64	64	64	64	64	64	64
Cost attrib. to Canary Wharf (with PP) (€000s)	5861	654	654	654	654	654	518	518	518	518	518	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Canary Wharf (Potential Growth) (€000s)	1707	0	0	0	0	0	0	0	0	0	0	341	341	341	341	341	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (with PP) (€000s)	4647	547	547	547	547	547	382	382	382	382	382	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (Potential Growth) (€000s)	3966	0	0	0	0	0	211	211	211	211	211	346	346	346	346	346	198	198	198	198	198	38	38	38	38
Cost attrib. to Crossharbour (with PP) (€000s)	2622	479	479	479	479	479	46	46	46	46	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Crossharbour (Potential Growth) (€000s)	4775	0	0	0	0	0	371	371	371	371	371	136	136	136	136	136	224	224	224	224	224	224	224	224	224
Cost attrib. to Island Gardens (with PP) (€000s)	246	49	49	49	49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Island Gardens (Potential Growth) (€000s)	221	0	0	0	0	0	34	34	34	34	34	0	0	0	0	0	5	5	5	5	5	5	5	5	5
Cost attrib. to other (€000s)	0																								
Mainstream funding assumed (€000s)																									
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																									
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																									
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																									
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																									
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																									
Unallocated dev. contrib. agreed (S106) (€000s)																									
CIL/S106 funding sought from developments (€000s)	28466	1978	1978	1978	1978	1978	1756	1756	1756	1756	1756	1137	1137	1137	1137	1137	491	491	491	491	491	331	331	331	331
Developer delivery (€000s)																									
Other funding sought (€000s)																									
Low growth																									
Project details for this scenario																									
Gross cost (€000s)	28466	1978	1978	1978	1978	1978	1756	1756	1756	1756	1756	1137	1137	1137	1137	1137	491	491	491	491	491	331	331	331	331
z1 South Poplar (% of gross cost attributable)																									
z2 Canary Wharf (% of gross cost)																									
z3 South Quay (% of gross cost)																									
z4 Crossharbour (% of gross cost)																									
z5 Island Gardens (% of gross cost)																									
Outside DIFS area (% of gross cost)																									
Cost attrib. to South Poplar (with PP) (€000s)	1867	248	248	248	248	248	125	125	125	125	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Poplar (Potential Growth) (€000s)	2554	0	0	0	0	0	69	69	69	69	69	314	314	314	314	314	64	64	64	64	64	64	64	64	64
Cost attrib. to Canary Wharf (with PP) (€000s)	5861	654	654	654	654	654	518	518	518	518	518	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Canary Wharf (Potential Growth) (€000s)	1707	0	0	0	0	0	0	0	0	0	0	341	341	341	341	341	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (with PP) (€000s)	4647	547	547	547	547	547	382	382	382	382	382	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to South Quay (Potential Growth) (€000s)	3966	0	0	0	0	0	211	211	211	211	211	346	346	346	346	346	198	198	198	198	198	38	38	38	38
Cost attrib. to Crossharbour (with PP) (€000s)	2622	479	479	479	479	479	46	46	46	46	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Crossharbour (Potential Growth) (€000s)	4775	0	0	0	0	0	371	371	371	371	371	136	136	136	136	136	224	224	224	224	224	224	224	224	224
Cost attrib. to Island Gardens (with PP) (€000s)	246	49	49	49	49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost attrib. to Island Gardens (Potential Growth) (€000s)	221	0	0	0	0	0	34	34	34	34	34	0	0	0	0	0	5	5	5	5	5	5	5	5	5
Cost attrib. to other (€000s)	0																								
Mainstream funding assumed (€000s)																									
Dev. contrib.agreed for South Poplar (S106/ S106+CIL works-in-kind) (€000s)																									
Dev. contrib.agreed for Canary Wharf (S106/ S106+CIL works-in-kind) (€000s)																									
Dev. contrib.agreed for South Quay (S106/ S106+CIL works-in-kind) (€000s)																									
Dev. contrib.agreed for Crossharbour (S106/ S106+CIL works-in-kind) (€000s)																									
Dev. contrib.agreed for Island Gardens (S106/ S106+CIL works-in-kind) (€000s)																									
Unallocated dev. contrib. agreed (S106) (€000s)																									
CIL/S106 funding sought from developments (€000s)	28466	1978	1978	1978	1978	1978	1756	1756	1756	1756	1756	1137	1137	1137	1137	1137	491	491	491	491	491	331	331	331	331
Developer delivery (€000s)																									
Other funding sought (€000s)																									

Community facilities

Project name	New Idea Stores																										
Project ref	SC01																										
About the project	<p>This programme will deliver the following projects as detailed in the <i>IDP</i> :</p> <ul style="list-style-type: none">• A new Idea store at Wood Wharf• A new Idea Store at Crossharbour <p>The requirement for these two new Idea Stores is the same in both scenarios. They are planned for delivery in 2021.</p> <p>In line with existing Idea Stores, these facilities will provide library facilities alongside community and adult learning facilities.</p> <p>2) essential mitigation</p> <p>LBTH</p>																										
What priority?																											
Which lead organisation?																											
Project delivery risk																											
Strategic/zone specific? Which zone?	Strategic cross-site																										
Scenario	<table><tr><th>Total (£000s)</th><th>2017/ 2018</th><th>2018/ 2019</th><th>2019/ 2020</th><th>2020/ 2021</th><th>2021/ 2022</th><th>2022/ 2023</th><th>2023/ 2024</th><th>2024/ 2025</th><th>2025/ 2026</th><th>2026/ 2027</th><th>2027/ 2028</th><th>2028/ 2029</th><th>2029/ 2030</th><th>2030/ 2031</th><th>2031/ 2032</th><th>2032/ 2033</th><th>2033/ 2034</th><th>2034/ 2035</th><th>2035/ 2036</th><th>2036/ 2037</th><th>2037/ 2038</th><th>2038/ 2039</th><th>2039/ 2040</th><th>2040/ 2041</th><th>2041/ 2042</th></tr></table>	Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042
Total (£000s)	2017/ 2018	2018/ 2019	2019/ 2020	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	2030/ 2031	2031/ 2032	2032/ 2033	2033/ 2034	2034/ 2035	2035/ 2036	2036/ 2037	2037/ 2038	2038/ 2039	2039/ 2040	2040/ 2041	2041/ 2042		
High growth scenario	Project details for this scenario																										
	The High Growth scenario population results in a requirement for 3,190sqm of library facilities. Based on the existing Idea Stores we recommend that this capacity can be catered for through the two Idea Stores proposed in the IDP.																										
	Gross cost (£000s)																										
	14020																										
	Cost attrib. to South Poplar (with PP) (£000s)																										
	0																										
	Cost attrib. to South Poplar (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to Canary Wharf (with PP) (£000s)																										
	0																										
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)																										
	7010																										
	Cost attrib. to South Quay (with PP) (£000s)																										
	0																										
	Cost attrib. to South Quay (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to Crossharbour (with PP) (£000s)																										
	0																										
	Cost attrib. to Crossharbour (Potential Growth) (£000s)																										
	7010																										
	Cost attrib. to Island Gardens (with PP) (£000s)																										
	0																										
	Cost attrib. to Island Gardens (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to other (£000s)																										
	0																										
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (£106) (£000s)																										
	CIL/£106 funding sought from developments (£000s)																										
	Developer delivery (£000s)																										
	Other funding sought (£000s)																										
Medium growth scenario	Project details for this scenario																										
	The Medium Growth scenario population results in a requirement for 2,531sqm of library facilities. Based on the existing Idea Stores we recommend that this capacity can be catered for through the two Idea Stores proposed in the IDP.																										
	Gross cost (£000s)																										
	14020																										
	Cost attrib. to South Poplar (with PP) (£000s)																										
	0																										
	Cost attrib. to South Poplar (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to Canary Wharf (with PP) (£000s)																										
	0																										
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)																										
	7010																										
	Cost attrib. to South Quay (with PP) (£000s)																										
	0																										
	Cost attrib. to South Quay (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to Crossharbour (with PP) (£000s)																										
	0																										
	Cost attrib. to Crossharbour (Potential Growth) (£000s)																										
	7010																										
	Cost attrib. to Island Gardens (with PP) (£000s)																										
	0																										
	Cost attrib. to Island Gardens (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to other (£000s)																										
	0																										
	Mainstream funding assumed (£000s)																										
	Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)																										
	Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)																										
	Unallocated dev. contrib. agreed (£106) (£000s)																										
	CIL/£106 funding sought from developments (£000s)																										
	Developer delivery (£000s)																										
	Other funding sought (£000s)																										
Low growth scenario	Project details for this scenario																										
	The Low Growth scenario population results in a requirement for 2,179 sqm of library facilities. Based on the existing Idea Stores we recommend that this capacity can be catered for through the two Idea Stores proposed in the IDP.																										
	Gross cost (£000s)																										
	14020																										
	Cost attrib. to South Poplar (with PP) (£000s)																										
	0																										
	Cost attrib. to South Poplar (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to Canary Wharf (with PP) (£000s)																										
	0																										
	Cost attrib. to Canary Wharf (Potential Growth) (£000s)																										
	7010																										
	Cost attrib. to South Quay (with PP) (£000s)																										
	0																										
	Cost attrib. to South Quay (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to Crossharbour (with PP) (£000s)																										
	0																										
	Cost attrib. to Crossharbour (Potential Growth) (£000s)																										
	7010																										
	Cost attrib. to Island Gardens (with PP) (£000s)																										
	0																										
	Cost attrib. to Island Gardens (Potential Growth) (£000s)																										
	0																										
	Cost attrib. to other (£000s)																										
	0																										

Community facilities

[illegible]

Mainstream funding assumed (£000s)
Dev. contrib.agreed for South Poplar (£106/ £106+CIL works-in-kind) (£000s)
Dev. contrib.agreed for Canary Wharf (£106/ £106+CIL works-in-kind) (£000s)
Dev. contrib.agreed for South Quay (£106/ £106+CIL works-in-kind) (£000s)
Dev. contrib.agreed for Crossharbour (£106/ £106+CIL works-in-kind) (£000s)
Dev. contrib.agreed for Island Gardens (£106/ £106+CIL works-in-kind) (£000s)
Unallocated dev. contrib. agreed (£106) (£000s)
CIL/S106 funding sought from developments (£000s)
Developer delivery (£000s)
Other funding sought (£000s)

PART D – HOW MUCH FUNDING IS AVAILABLE?

This part investigates how infrastructure at Isle of Dogs and South Poplar can be paid for.

We investigate whether public sector mainstream funding might help pay for development.

We then investigate the ability of the scale of the development envisaged to pay for infrastructure through developer contributions, when taking into account other requirements such as affordable housing.

We also investigate the possible scope for business rate retention, and how it could help to pay for infrastructure.

5 INFRASTRUCTURE FUNDING: DEVELOPER CONTRIBUTIONS AND MAINSTREAM FUNDING

Introduction

- 5.1 This chapter sets out the level of developer contributions that we estimate could be available through development at the study area. We also deal briefly with our approach to mainstream (public sector) and other funding streams.
- Developer contributions: There are various methods by which developer contributions could be collected: the main ones are S106 and Community Infrastructure Levy. S278 agreements may also be used to mitigate some types of transport impacts.
 - Funding from mainstream public sources (e.g. Government, Transport for London). We assess the potential availability of mainstream public funding to pay for the infrastructure requirements resulting from the growth.

Mainstream and other public sector funding sources available

Public sector funding is assumed in our study

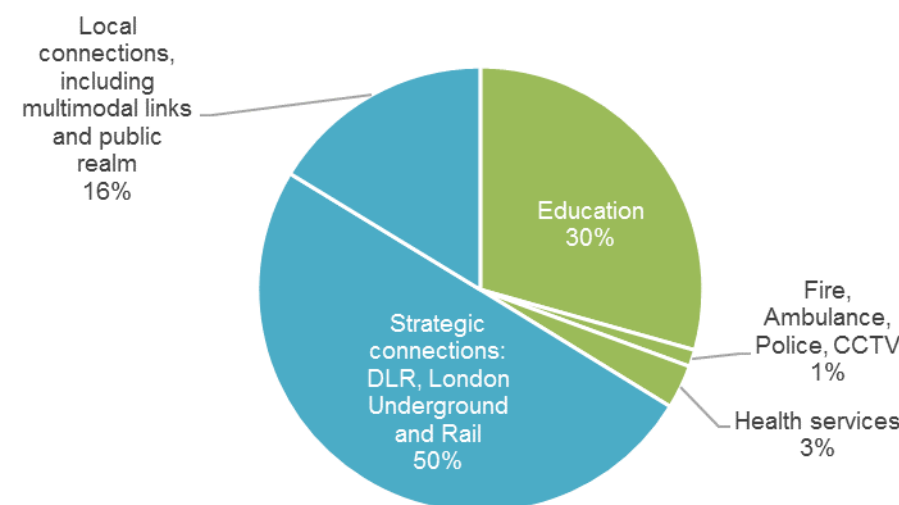
- 5.2 Some public sector mainstream funding is assumed in our study to pay for a range of infrastructure, meeting around half of the total costs associated with infrastructure need. This is a standard approach for infrastructure delivery utilising central funding available from Government and in London Strategic GLA / TfL funding supporting the delivery of services and facilities.

Future TfL funding forms the bulk of public sector funding assumptions but we also expect some central funding for some social infrastructure

- 5.3 We are informed that some transport projects are expected to be funded through the TfL business plan; however, these projects will have to 'bid' for funding. We have assumed that projects will secure TfL funding but this is not guaranteed; TfL's budget relates to the whole of London and projects relating the study area will have to compete for funding with projects across the capital.
- 5.4 In relation to social infrastructure, this includes some schools projects, where we have assumed that mainstream funding will be available through the Dedicated Schools Grant. Lastly, we have assumed that there is an element of mainstream funding available for emergency services and health provision. In relation to health, as explained in the preceding section, while we recognise that facilities may be provided by developers through S106 agreements, because of the leaseback structures in place, these facilities are assumed have CCG funding over the longer term.
- 5.5 The figure below shows the breakdown of mainstream funding under the maximum growth scenario. In the two lower growth scenarios, while the level of TfL funding remains broadly

constant despite lower growth, the proportion of mainstream social infrastructure reduces in line with the reduced social infrastructure needs.

Figure 5.1 Mainstream funding by infrastructure category (maximum growth scenario)



Source: PBA

- 5.6 However, public sector austerity remains very much in force, and we have generally avoided assuming that significant tranches of public sector funding are available to support infrastructure for growth, outside of the assumptions set out above. This appears to be the most prudent approach: it is impossible to predict such opportunities reliably over the time periods involved, and we have not attempted such an exercise. Changing governments at regional and national level or even changing policy by the same government can significantly impact on the amount of mainstream funding available. This study has based all costs and income on current policy and values and therefore this is the most appropriate approach.

How much funding for infrastructure is available from developer contributions already secured?

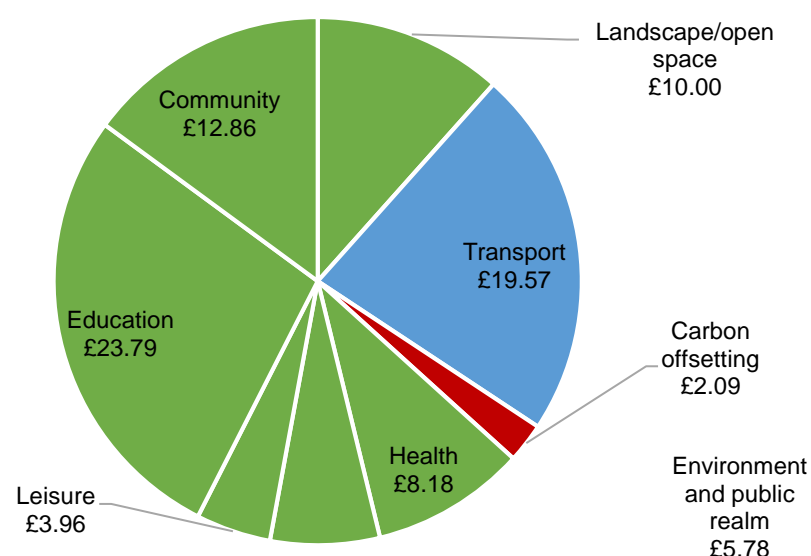
Contributions already secured through S106 and CIL (relating to development with planning permission)

- 5.7 We have used information provided by LBTH to calculate available funding relating to the development with planning permission. This is separated into S106 contributions agreed and LBTH CIL. These contributions are provided as:
- Contributions associated with specific infrastructure items (S106/CIL/CIL works-in-kind)
 - Pooled funding which has not yet been allocated

A S106 'pot' from IoDSP development already with planning permission is available to pay for infrastructure

- 5.8 LBTH gave us a list of the total S106 funding already secured from developments with permission. The agreed S106 contributions are separated into 15 categories. We streamlined the list to look at funding for infrastructure involved in this study. We have therefore excluded contributions made towards travel plans, management plans, local employment, affordable housing, public art and CIL relief: these are linked to projects that do not form part of this DIFS. S106 funding pooled across the borough for strategic borough-wide projects has also been excluded.
- 5.9 The sum in the 'pot' usable towards infrastructure listed in the DIFS is therefore smaller than this total. The 'usable' amount is some £86.2m. The share of the pot 'usable' for infrastructure in this DIFS is set out below.

Figure 5.2 Contributions secured from development with planning permission (£M)



Source: LBTH

A CIL 'pot' from IoDSP development already with planning permission is also available

- 5.10 LBTH has been able to obtain CIL on developments which have already gained planning permission. The LBTH CIL contributions from the development with planning permission are estimated to be worth around £77m. However, the Council is not in receipt of this sum, which is only paid to the Council in the year after the development commences. LBTH currently holds around £35m.

Important notes

- 5.11 As we set out in para 3.36 onwards, money in the S106/S278 'pot' may be allocated to paying for very specific projects. We have not undertaken a separate line-by-line check that the infrastructure items related to specific S106 payments appear in this DIFS study. Instead, we have treated the S106 'pot' as a method of paying for infrastructure, on the assumption that the

right fit can be found between the S106 project and the infrastructure items generated by this study.

- 5.12 For cashflow purposes, we have profiled the release of S106 or CIL funding already secured to align with the trajectory.
- 5.13 CIL and S106 payments can be subject to indexing, frequently using build cost indices. The objective is to ensure that payments which take place over different time periods reflect alterations in build costs in the intervening period. As with the rest of the study, we are using today's costs and values, so it would be wrong to take any account of indexation here.

How much funding for infrastructure is available from LBTH CIL on potential development?

- 5.14 LBTH have an agreed CIL in place, adopted in April 2015. Local authorities will normally review their CIL every few years to update it in accordance with changing policy and market conditions. We understand that the Tower Hamlets CIL is currently being reviewed, but that no changes to policy have yet been made.
- 5.15 Because no changes to the CIL charging rates have yet been made, we have calculated CIL receipts on planned development at the rates prevailing in May 2016. (We do not count Mayoral CIL as funding that can contribute to the IoDSP infrastructure, because it is used for other purposes as defined by the Mayor). CIL figures are all in today's values with no indexation.

We calculate how much *additional* developer contributions (potentially including CIL (or S106) could be raised to pay for infrastructure by additional charges

- 5.16 CIL regulations expect CIL levels to be revised when there are structural changes in the market. There have been precisely these changes in the market since April 2015 and the emerging Local Plan and OAPF will change the planning policy context imminently. Additionally, development has been seen to come forward at a higher density than previously anticipated in some parts of the study area. Given these changes have taken place it is appropriate to examine whether it might be possible to charge a higher rate of CIL in the future.
- 5.17 **This study is working in advance of a CIL review by LBTH. We defer to the findings of that study, which will be more precisely targeted at examining this issue. While this analysis has some similarities with a CIL review, its remit and assumptions differ in a number of key areas. The CIL Review is required to assess a range of subtleties not considered in this report that considers the general viability of the area, including the site specific assessment of Strategic Sites.**

We have used a residual valuation model to calculate the amount of developer contribution that could be available after other policy costs are met

- 5.18 We have also built the existing Borough CIL charges (and Mayoral CIL) into our viability model, so that our calculations of developer contribution show the position *after* these sums have been

paid. We have also taken into account the way that development proximity to a Crossrail station modifies the general CIL charge.

- 5.19 Our approach calculates possible developer contributions based on the 'gap' between
- Current Use Value plus an uplift intended to incentivise the landowner to redevelop the site; and
 - The residual land value from the completed (new) development.
- 5.20 This method of calculation, like all similar calculations, is affected to a great degree by the assumptions made in arriving at these two figures.
- 5.21 If every site in the area had a strong viability position, then at the high trajectory with 35% affordable housing, around £600m-worth of planning contributions could in theory be available on top of the CIL currently charged. However, viability varies across sites and development typologies, sizes and locations. While strong sites would be able to be developed and afford higher CIL payments, some others may struggle and ultimately fail to be delivered at all due to a lack of viability.
- 5.22 Demanding these levels of contribution would 'shock' the market and cause disruption, particularly in stronger markets (such as Canary Wharf and South Quay) where major hikes in developer contribution would be necessary if this sum was to materialise. It is therefore not realistic for this study to suggest that this amount of funding for infrastructure would be available given the existing mechanisms available to capture land value uplift (i.e. CIL and a limited role for S106). However, it should clearly be an aspiration of the planning authority to maximise the levels of contribution achievable.

In order to stay compliant with the Harman report, we have 'locked in' affordable housing contributions at 35% or higher, and then sought to understand the amount of developer contributions which could be paid towards infrastructure

- 5.23 Our concern is to calculate the amount of developer contribution for infrastructure, having ensured that
- policy costs (mainly affordable housing) is, generally speaking, able to be paid at 35% across sites in IoDSP area; and
 - sites remain viable, so allowing the delivery of the masterplan.

- 5.24 This calculation provides us with an indicative total amount of developer contribution available to be used for infrastructure funding.

We take a precautionary approach to the amount of developer contributions to infrastructure by using a 'buffer'

- 5.25 This study aims to estimate the amount of developer contributions which might be available to pay for infrastructure.
- 5.26 We have set a buffer relating to calculation issues, or 'safety margin' when estimating the amount of developer contributions which might be available to pay for infrastructure in future. The

concept of the safety margin is an accepted one from CIL Guidance, and allows us to deal with two issues.

- Firstly, costs and values of development on a given site could vary from the typologies we have used in viability testing over the economic cycle, and the price of land could vary widely in practice. Of particular relevance to the Isle of Dogs is the significant variation in the underlying benchmark land value in an area with significant existing development and the potential for some development beyond what the DIFS can enable.
- Secondly, the current CIL system has limited the flexibility of local authorities to use S106 to maximise developer contributions on individual sites, requiring the use of the more generic CIL system. Local authorities are therefore required to set CIL rates that assess and protect development viability, not on a site by site basis, but on an area wide basis, protecting viability taken as a whole. The safety margin ensures that both strong and weaker sites can generally come forward for delivery.

- 5.27 We consider this to be a reasonable approach and broadly consistent with the emerging Local Plan Viability Study.

Our chosen safety margin

- 5.28 The precise size of the safety margin is open to question and judgement. We have assumed that 60% of the theoretical remaining amount might be available to fund infrastructure. A significant risk is the variance of the underlying BLV. This figure seeks to take account of some of the uncertainties in how much of this value can be captured in practice and in the variables within the assessment.

The table below sets out an estimate of the amount of additional developer contributions (potentially including CIL and S106) which might be available to pay for infrastructure

- 5.29 Using the above method, the table below shows the developer contributions which are estimated to be available after a 'safety margin' discussed above has been assumed. These are not a replacement for the CIL viability assessment being undertaken, but do indicate that higher future CIL rates may be possible in some circumstances

Table 5.1 Developer contributions available (Mayoral CIL is not available to pay for local growth, so is not presented here) (£millions)

	Income	Low	High	Maximum
35%	Borough CIL at existing rates	£94	£179	£266
	Potential additional developer contributions though CIL/ S106	£15	£262	£362
	Total available	£109	£441	£628
40%	Borough CIL at existing rates	£87	£165	£246
	Potential additional developer contributions though CIL/ S106	-£114	£19	£14
	Total available	-£27	£184	£260
50%	Borough CIL at existing rates	£72	£138	£205
	Potential additional developer contributions though CIL/ S106	-£373	-£468	-£685
	Total available	-£301	-£330	-£480

Source: CW

- 5.30 The figures in the table above do not include Mayoral CIL or Crossrail Funding Supplementary Planning Guidance (SPG) given that these sums are already hypothecated to pay for other elements of infrastructure. For information only, these figures are illustrated below.

Table 5.2 Mayoral CIL or Crossrail Funding Supplementary Planning Guidance (SPG) (not included as contributing to the funding gap) (£millions)

Scenario	Income	Low growth	High growth	Maximum growth
35% Affordable	Mayoral CIL	£60	£80	£103
	Crossrail Funding SPG	£186	£186	£186
	Total	£246	£266	£289
40% Affordable	Mayoral CIL	£59	£77	£98
	Crossrail Funding SPG	£186	£186	£186
	Total	£245	£263	£284
50% Affordable	Mayoral CIL	£55	£70	£88
	Crossrail Funding SPG	£186	£186	£186
	Total	£241	£256	£274

Source: CW

6 INNOVATIVE FUNDING FOR INFRASTRUCTURE

Introduction

6.1 Having looked at mainstream and CIL/S106 funding in the sections above, in this section we examine other funding from more innovative sources such as business rates retention. There are necessarily limits to what can usefully be provided at this stage.

- Many pieces of infrastructure covered in this report will not be needed for many years. We expect that many changes will be made to funding streams and policies in the intervening period. That means that it is not helpful to go into too much detail at this stage.
- Experience suggests that the best approach is not to simply aggregate all of the possible funding sources and then match them to aggregate needs, or to simply hunt around for possible sources of funding on an opportunistic basis, but rather to identify financial problems as precisely as possible before seeking solutions from the more limited range of possibilities that are specifically suited to addressing them.

Business rate retention, Enterprise Zones and tax incremental financing (TIF)

Business rate retention is currently being used – with and without Enterprise Zones

- 6.2 Capturing some or all of business rates generated within a defined area is an increasingly common means of funding new infrastructure. This has been done successfully (in terms of part funding total infrastructure costs) in London whereby, in 2010, TfL and the Mayor of London introduced a 2p direct levy on non-domestic properties with a rateable value over £55,000 to help pay for Crossrail (Elizabeth Line). It was expected to contribute around £4.1 billion although we understand there has been a shortfall.
- 6.3 A major focus with the various models for retaining business rates is Enterprise Zones. These were set up in 2012 by the UK government; geographical areas with a range of incentives to help to build or grow businesses, including simplified planning and tax relief. Currently, Enterprise Zones have a commercial focus rather than being aimed at improving housing supply.
- 6.4 Gaining classification as an Enterprise Zone can help fund infrastructure projects as changes to business rates generated by firms locating in the defined zone are retained and reinvested in local economic growth for a period of typically 25 years. The commercial focus makes it difficult to apply this mechanism to the Isle of Dogs.

Authorities can borrow against the business rate income stream in a TIF

- 6.5 Typically, through the use of TIF, municipalities divert future property tax revenue increases from a defined area of district towards an economic development project or public improvement

project. These efforts have typically relied upon special circumstances (i.e. GLA as the developer or owner of land) that may be difficult to replicate at the Isle of Dogs.

- 6.6 The Northern Line Extension to Battersea is largely being funded by the Public Works Loan Board and paid back by the private sector through value uplifts generated by redevelopment in the wider Battersea area; the entire funding requirement, including interest costs, is expected to be met through £266m (2012/13 prices) of developer contributions from S106 and CIL and retained business rates via a new Enterprise Zone. The zone is to be used purely as a funding mechanism for the extension with no additional incentives available to businesses (so distinct from the 'official EZs').

There is an important distinction between Battersea and the Isle of Dogs, which makes a TIF more difficult to use

- 6.7 At Battersea, the affected area was predominately industrial in nature prior to the funding of the extension and the step change in values and densities which a new underground station provides is demonstrably significant. In contrast, while the infrastructure proposed within the Isle of Dogs is critical to improve the capacity for development, it is not (in itself) envisaged to create an uplift in underlying property unit values.

If business rates could be retained, then this would open a major new funding stream for infrastructure – but we have not counted this as a funding source in this study

- 6.8 Taking the figures from the viability model in relation to the potential rental value of the commercial assets (on the net additional area of commercial space) generates a potential a potential business rates per annum of circa £150 million (for 814,000 sq metres of office space and 19,000 sq metres of 'other' commercial. Based on the potential ability of LBTH to retain 30% of this income, this equates to circa £45 million of income per annum.
- 6.9 Clearly, business rate retention could be politically contentious, because it would in effect mean that all or some of the business rates generated in Canary Wharf would be recycled back into infrastructure at Canary Wharf – meaning that receipts could not be used elsewhere in more disadvantaged areas of the borough.

Stamp Duty capture

London First have suggested local capture of SDLT to help fund infrastructure

- 6.10 Stamp Duty capture is a relatively new funding proposal which would allow revenues from Stamp Duty Land Tax (SDLT) to be collected for a specified period of time in a certain location. Ring-fencing SDLT is identified by London First as an alternative means for pooling funds to capture value uplifts accruing to development.
- 6.11 The current threshold for paying SDLT is £125,000 for residential properties and £150,000 for non-residential land and properties, and is chargeable on the purchase of a freehold property, a new or existing leasehold, shared ownership scheme, and on the transfer of land or property in

exchange for payment. This is usually paid on the price of the land or property. Rates are paid in increasing portions of the property above £125,000 on residential property (unless it's an existing lease).

This funding source is not available to local authorities now, so we have not counted it in this study

- 6.12 Currently, these funds are pooled with the HM Revue & Customs and therefore it is difficult for Local Authorities to create a direct mechanism to share in the growth that would come from SDLT receipts based on infrastructure upgrades. We have therefore not included it as a funding source in this study.
- 6.13 Long term, it could be on the agenda to see Local Authorities be able to retain all or part of the increase in SDLT receipts which can be attributed to their own direct investment (in this case, the infrastructure which can deliver up to 30,000 new homes). However, as per business rates retention (but over a wider area), SDLT receipts are used by Government as part of general funding and London generates the majority of such receipts; thus, it is likely to be politically difficult for relatively wealthy areas of London to retain SDLT receipts.
- 6.14 The average price of the private units within the viability assessment is circa £745,000 which equates to a stamp duty cost of £27,250. As a simplistic measure of the potential stamp duty receipts from the first sale of these units, applying this average to the 19,100 private units in the high growth scenario (at 35% affordable housing) gives a total receipt of circa £520 million.
- 6.15 LBTH and the GLA may choose to lobby for some form of SDLT retention in future.

GLA Housing Zones

- 6.16 The GLA's Housing Zones programme seeks to accelerate the delivery of significant housing developments in London through providing funding for items which assist in achieving this, including infrastructure projects.

Housing Zone funding is intended to be a repayable loan

- 6.17 The initial initiative was backed by £400m of funding; £200m of grant or loan capital funding from the GLA and £200m of recoverable funding from the HM Treasury. The GLA will look to recover its investment where this is possible, either by direct recovery through loans with a commercially calculated interest rate, or through overage or profit share type arrangements. Where this is not possible then the Mayor will consider making investment available through grant. The funding being made available by central Government is in the form of a Financial Transaction. Access to the recoverable capital investment fund is open to private sector organisations only but through a Local Authority led bid. In terms of infrastructure funding, it is expected that any investment would be at least matched with equal funding from other partners and be made on a repayable basis.
- 6.18 Local Authorities who submit successful proposals for housing zones also have access to cheaper borrowing at the Public Works Loan Board's projected rate for capital infrastructure expenditure, relating to the zone. Whilst the programme is finite, the scale of the housing challenge within London means that the extension of the programme (or it morphing into something else) may be possible.

- 6.19 Boroughs (like LBTH with its Poplar Riverside housing zone) identify and package together brownfield land which could be used for development into a zone, remove unnecessary restrictions and partner with developers to build new homes. The GLA seeks to work with boroughs to plan the development, put in the infrastructure, release public land, simplify planning, clean up pollution, streamline compulsory purchase orders and do anything necessary to open up the regeneration of an area. The zones are governed by 10-year frameworks, offering commitment and affording clarity and certainty.

Because this is a loan rather than grant, and is unlikely to be of a scale to deal with requirements, we have not factored it in here

- 6.20 The main benefit of the programme is providing the upfront funding whilst the critical issue for the Isle of Dogs DIF is how repayment can be generated.
- 6.21 Outside of the housing estate elements of the Isle of Dogs and individual, small scale infrastructure works, the scale of the requirements at the Isle of Dogs is likely to dwarf the capabilities of the programme. We have not counted this as a funding source, but the scheme could be further investigated.

Affordable Homes Programme

Grant can go to increase the numbers of affordable homes produced

- 6.22 In London, the GLA administers the Affordable Homes Programme alongside the National Affordable Housing Programme (which aims to increase the supply of new affordable homes in London). The aim is to increase the supply of new affordable homes in England by March 2018. In November 2016 the government announced £3.15 billion of its Affordable Homes Programme will be allocated to London to deliver 90,000 homes.
- 6.23 The Mayor of London announced that the rules surrounding the use of the funding have been relaxed and the £3.15 billion in London will be used to fund homes for low-cost rent, London Living Rent (set at 35% of local wages) and shared ownership between now and 2021. The GLA will fund affordable housing through three different routes:
 - The Approved Provider route – with a single set grant rate for London Affordable Rent at or below the benchmarks and a different set grant rate to increase the level of affordable home provided on section 106 sites.
 - The Developer led route – with a single grant rate to increase the level of affordable homes provided on S106 sites.
 - Negotiated grant rates mainly for supported and specialised housing, and for London Affordable Rent at levels above the benchmarks. (london.gov.uk – affordable homes programme funding guide, 2016)

This is a scheme-by-scheme approach, rather than a strategic funding source. We have not assumed that funding is used at IoDSP

- 6.24 For each development there is a bid process for funding, and there are not many restrictions on the funding. However, payment will be split 50:50 either at land acquisition stage and start on site stage, or start on site stage and practical completion stage.
- 6.25 In the context of the Isle of Dogs and South Poplar Study area, London Affordable Homes Programme funding could assist in ensuring policy compliant levels of affordable housing can be delivered where viability is challenged meeting policy levels as well as CIL, S106 and any other off site planning obligations. This is however likely to be on a site by site rather than overarching strategic level.

Public sector funding and financing

Various Central Government funds are available for infrastructure

- 6.26 The National Infrastructure Plan announced significant investments and loans in infrastructure. UK Government priorities and funding programmes include:
- Local Growth Fund - £50 million to invest in infrastructure to unlock sites of 250-1,499 homes.
 - Accelerated Construction Fund (ACF) – part of a £5 billion government pledge of public money to accelerate house building. £2 billion of government funding for enabling works such as remediation on public land made available to builders with planning permission. Local planning authorities can grant planning permission in principle on sites in new brownfield registers, to remove risk and facilitate deliver of 140,000 homes a year.
 - Housing Infrastructure Fund - £2.3 billion investment in road, rail and other infrastructure to support development. Local authorities in London can make bids for up to £10 million through the marginal viability fund; and the GLA can bid for up to £250 million through the forward funding fund
 - Large Sites Infrastructure Fund (known as LIF2) – aimed at large sites (minimum value £500,000) ready to start development but requiring upfront infrastructure.
 - Local Authority Land Release Fund - £45 million fund intended to allow LPAs to unlock surplus land for housing by paying for remediation and small-scale infrastructure.
- 6.27 These programmes are typically aimed at individual sites where the infrastructure is deemed to be critical to delivering the units envisaged.

There are also a number of London-based funding opportunities

- 6.28 As well as Central Government funding programmes, the Mayor of London has announced a series of short-term funding opportunities which could be used to pay for infrastructure in the study area, specifically:
- Good Growth Fund – running from March 2017 to 2021, funding options include capital grants of up to £5 million for place-shaping and repayable grants of between £50,000-£2 million for civic infrastructure.

- Liveable Neighbourhood – £10 million available for funding projects to improve physical connections and public realm

Applicability of these funds might be limited at IoDSP. However, a ‘bid’ could be considered

- 6.29 Given the disparate nature of the site and land ownership within the Isle of Dogs, it is likely to be difficult (beyond some site-specific issues) to utilise these funds for the infrastructure envisaged within this DIF.
- 6.30 However, the scale of units envisaged does have some similarities to a number of major development areas where the Government is actively reviewing the provision of upfront funding based on some payback (from developers, CIL etc.) but critically where a significant Gross Value Added (GVA) benefit is envisaged.
- 6.31 The potential for a ‘bid’ to government could be considered based on the wider externalities and benefits that improved infrastructure would bring. There are a number of examples of multi-site funding provisions from Central Government including:
- Ebbsfleet Development Corporation which has over £300 million of infrastructure funding allocated by Government to enable the delivery of circa 15,000 homes and 500,000 sq m of commercial space.
 - The UK Central Hub is the area around the proposed Birmingham Interchange railway station on the edge of Birmingham. Prior to development it already has over £300 million allocated by Government (to the West Midlands Combined Authority) to fund major infrastructure improvements which link into the proposed station and enable significant economic and property outputs (3,000-4,000 homes and over 700,000 sq metres of commercial space).
- 6.32 In addition, the London-specific grants, while short term, could play a role in alleviating cashflow issues in the early years to support upfront infrastructure.

New Homes Bonus

New Homes Bonus is not a reliable source of infrastructure funding, so is not assumed to be funding infrastructure here

- 6.33 New Homes Bonus (NHB) is a grant paid by Central Government to local authorities, for six years based on the incremental council tax receipts. However, this was created because Central Government cut funding previously allocated to local authorities in the Housing and Planning Delivery Grant and Local Authorities formula grant.
- 6.34 The aim of the NHB was to encourage local authorities to grant planning permissions for the building of new houses in return for additional revenue. Local authorities are not obliged to use the bonus funding for housing development. Local authorities now have the flexibility on how to spend the grant and it does not necessarily have to be on infrastructure, therefore it is unlikely this will be their main priority, and this funding stream cannot be relied on. The NHB does not

directly fund infrastructure and the returns which can be generated from it in future appear uncertain.¹¹

A note on future CIL charging

- 6.35 The 'A New Approach to Developer Contributions' (October, 2016) paper took a comprehensive look at the current operation of CIL and its relationship to s106. The Government stated in the Housing White Paper (February 2017) that it intended to respond to the paper in autumn 2017, but the June 2017 General Election may have altered this timetable.
- 6.36 The paper argued that a new approach to developer contribution is needed. Under the 'twin track' system all developments would be subject to a streamlined low level tariff – the local infrastructure tariff (LIT) and this would apply to all developments with no exception. This would be partnered with a S106 approach free of pooling restrictions. The framework for this new twin-track system is as follows:
- Hybrid system of LIT and S106.
 - The setting of the LIT should be calculated according to the Local Plan for that area so that it will feed directly into the local infrastructure plans:
 - This calculation should be done a national formula based on local market value at a set rate.
 - It is suggested that this formula is also linked to publically available indexed data, and should be reported through the Authorities Monitoring Report.
- 6.37 Additionally, the CIL review team has recommended that combined authorities should be enabled to set up an additional Mayoral-type Strategic Infrastructure Tariff (SIT), and should be used on major projects that will benefit a vast, wider area, rather than a localised one.
- 6.38 More detail will be needed to be sure, but it appears that these changes may be positive for the area overall – particularly if the restrictions on S106 pooling are removed. The pooling restrictions are a particular obstacle to the provision of strategic area-wide infrastructure.
- 6.39 However, it is worth noting at the outset that there is no guarantee that the Government will make changes and even if they do, it is likely that the changes will take several years to come through the system, and then for local authorities to implement them.

Monitoring funding sources

- 6.40 While there may be limited options available at any one time, this is liable to change, with new funds announced from different areas of Government and other funding bodies often on a very ad hoc basis. Delivering co-ordinated growth at the Isle of Dogs will be long-running project, it will therefore be important that these are kept under review over the life span of the OAPF and beyond so that funding sources can be pursued when appropriate.

¹¹ £1.46 billion has been located from the NHB for 2016-17. However, from 2017 a national baseline for housing growth will apply of 0.4%, below this, the NHB will not be paid. The aim of this change is to ensure that the money is used to reward additional housing rather than just normal growth. Additionally, the number of years for which payments are made will be reduced from six years to five years in 2017-18 and reduced further to four years from 2018-19. The funding released from this

measure will be retained by the local authorities to contribute towards adult social care costs, recognising the demographic changes of a growing, and aging population.

PART E - SUMMARY AND CONCLUSIONS

This section puts infrastructure requirements, costs and funding together, to look at whether the scheme generates enough money to pay for the infrastructure required.

7 UNDERSTANDING THE FUNDING GAP

Introduction

7.1 This section pulls together our findings. We discuss the requirements for infrastructure to cope with growth, the resulting costs, and funding. It provides an outline cashflow for infrastructure investment.

Infrastructure to realise the wider aspirations for loDSP and the surrounding area

‘All-in’ wider infrastructure costs are around between £1.6 and £1.8 billion

7.2 If we look at the development of the loDSP in its wider context, there are a series of projects which could form part of a wider delivery vision for this area. The demand for some of these infrastructure projects is not wholly generated by development within the loDSP itself, but are instead part of a more general package of improvements in and around the loDSP study area.

7.3 Projects in this category include the Isle of Dogs to Rotherhithe footbridge; investment on DLR and Jubilee Line capacity across the wider network, as well as some social infrastructure items such as secondary education, emergency services and sports and leisure provision which will meet needs from an area wider than loDSP.

Table 7.1 Estimated ‘all-in’ infrastructure costs located at loDSP by infrastructure category (£000s) inc. maintenance

		Low growth	High growth	Maximum growth
Utilities	Electricity	£47,798	£47,798	£47,798
	Gas	£1,000	£1,000	£1,500
	Telecoms	£0	£0	£0
	Potable Water	£4,500	£4,500	£4,500
	Drainage	£0	£0	£0
	Waste	£4,000	£4,000	£4,000
Local connections and transport	Strategic transport	£744,000	£744,000	£744,000
	Local transport	£288,900	£346,100	£384,250
	River transport	£7,000	£7,000	£7,000
	Bridging Aspen Way	£12,650	£25,300	£37,950
Social Infrastructure	Education	£360,416	£435,577	£461,421
	Emergency services	£29,465	£29,465	£29,465
	Health	£18,996	£23,745	£28,494
	Leisure and sport	£62,070	£64,120	£66,170
	Community	£23,620	£23,620	£23,620

	Low growth	High growth	Maximum growth
Total	£1,604,415	£1,756,225	£1,840,169

Source: PBA

A more detailed look at the findings, using costs attributable to loDSP growth

We moved from ‘all-in’ infrastructure cost (for all infrastructure in and around loDSP) to costs *attributable to growth* at loDSP

7.4 Above, we have shown the ‘all-in’ infrastructure costs. These figures include costs which cannot be directly attributed to growth at loDSP itself.

7.5 We now focus on costs that *are* directly attributable to growth of homes and jobs at loDSP.

Infrastructure costs attributable to growth at loDSP amount to between £1.0-1.3bn. There is a relatively modest difference in infrastructure costs between the scenarios

7.6 Table 7.2 breaks out the costs of infrastructure attributable to growth at loDSP by broad theme and sub-theme.

7.7 The table shows costs for the growth scenarios. While the high growth scenario provides 25% fewer housing units than the maximum growth scenario, there is not a corresponding saving in infrastructure costs. Infrastructure costs are only 9% lower. The low scenario provides only 64% of the housing growth of the high growth scenario but this only reduces infrastructure costs by 20%. This is because transport and utilities costs for this scale of growth are relatively fixed, and so insensitive to changes in growth between scenarios. Of course, higher growth will generate more intensive use of infrastructure, but the underlying cost of that infrastructure does not alter in an equivalent way.

Table 7.2 Estimated infrastructure costs attributable to growth at loDSP by infrastructure category (£000s)

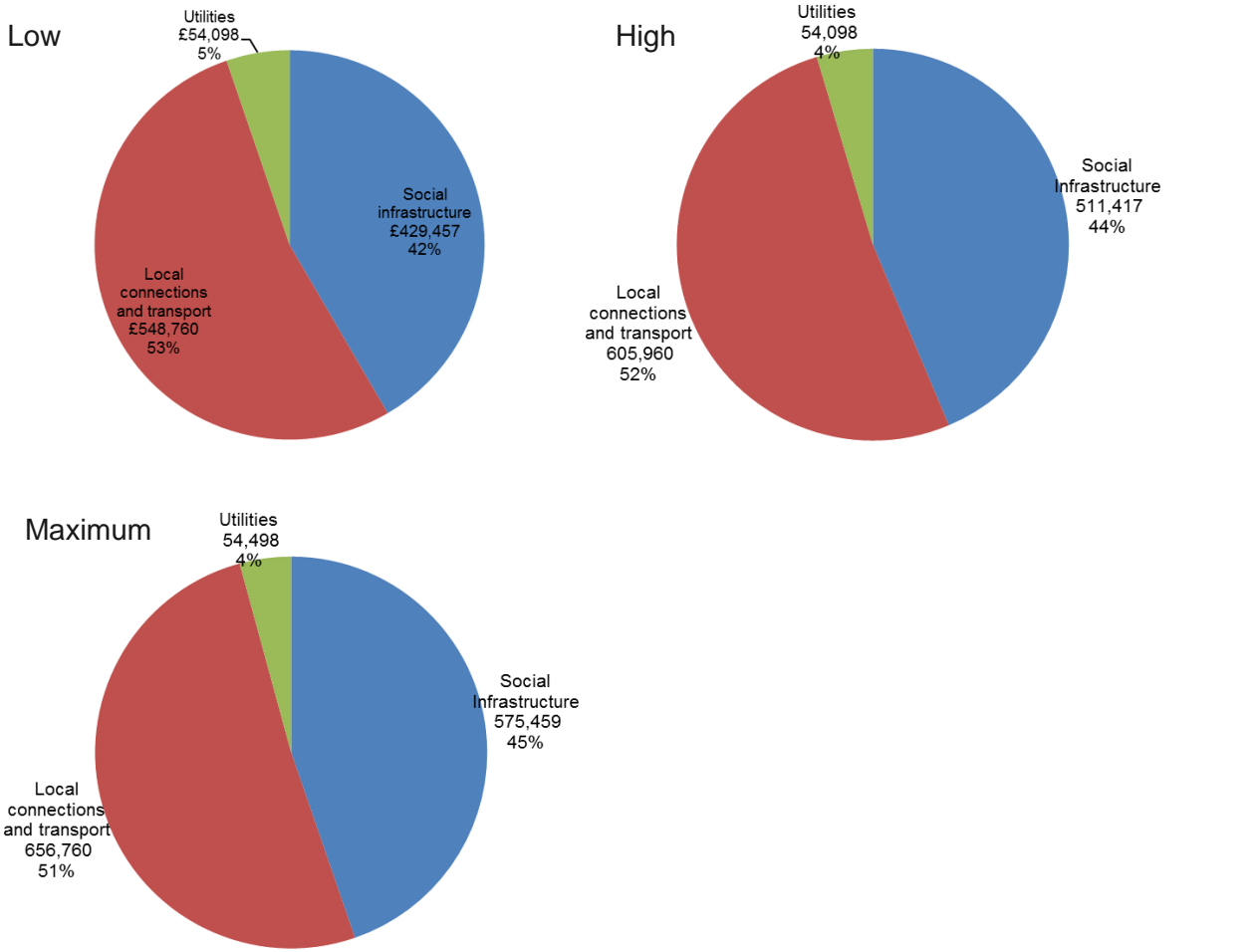
		Low growth	High growth	Maximum growth
Utilities	Electricity	£47,498	£47,498	£47,498
	Gas	£800	£800	£1,200
	Telecoms	£0	£0	£0
	Potable water	£1,800	£1,800	£1,800
	Drainage	£0	£0	£0
	Waste	£4,000	£4,000	£4,000
Local connections and transport	Strategic transport	£327,560	£327,560	£327,560
	Local transport	£227,050	£246,100	£284,250
	River transport	£7,000	£7,000	£7,000
	Aspen Way bridging	£12,650	£25,300	£37,950

		Low growth	High growth	Maximum growth
Social infrastructure	Education	£259,633	£334,794	£360,638
	Emergency services	£23,238	£23,238	£23,238
	Health	£18,996	£23,745	£28,494
	Leisure and sport	£62,070	£64,120	£66,170
	Community	£15,940	£15,940	£15,940
Total		£1,008,234	£1,121,895	£1,205,738

Source: PBA

7.8 Figure 7.1 below shows estimated infrastructure costs by category. The figure demonstrates that the great majority of infrastructure costs attributable to growth are transport costs.

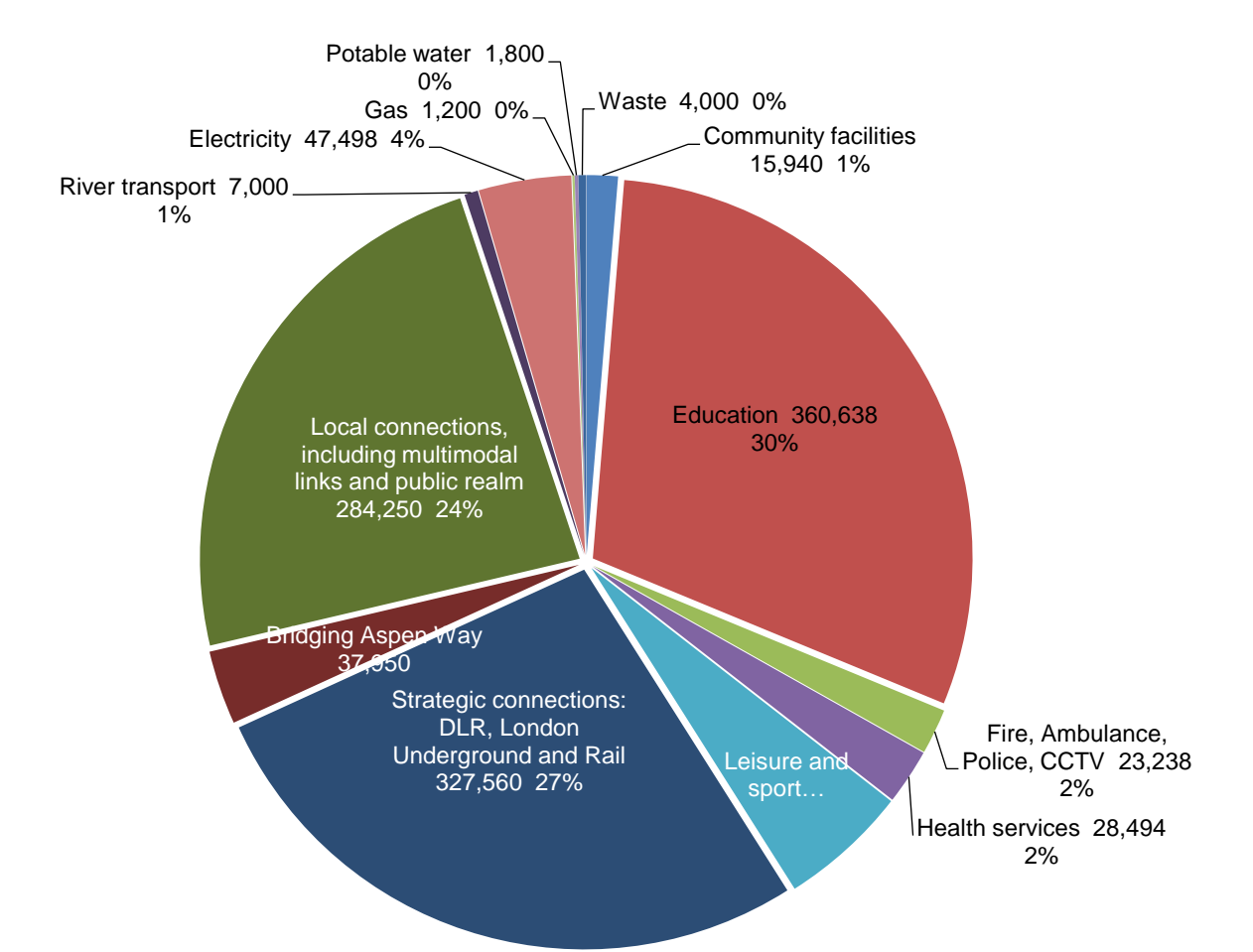
Figure 7.1 infrastructure costs attributable to IoDSP by broad infrastructure category (£000s)



Source: PBA

7.9 Figure 7.2 adds further detail to the infrastructure costs presented above for the maximum growth scenario only.

Figure 7.2 infrastructure costs attributable to IoDSP (£000s) (further detail) (maximum growth scenario)



Source: PBA

Infrastructure costs are heaviest in the years five to 10 of development

7.10 The table below shows the estimated timing of infrastructure costs given the development trajectory we were testing. It is highly likely that the phasing of growth will not exactly match this trajectory in the real world, meaning that the timing of infrastructure requirements will also change. This has an effect on the cashflow of infrastructure funding. We say more later in this section.

Table 7.3 Estimated timing of infrastructure costs attributable to IoDSP development by category – maximum growth scenario (£000s)

Theme	Category	Phase 1 (2017-22)	Phase 2 (2022-27)	Phase 3 (2027-32)	Phase 4 (2032-37)	Phase 5 (2037-42)	Total
Utilities		£43,175	£9,447	£834	£591	£450	£54,498
	CHP and Heat Network	£0	£0	£0	£0	£0	£0
	Electricity	£39,138	£8,360	£0	£0	£0	£47,498
	Gas	£1,200	£0	£0	£0	£0	£1,200
	Potable water	£1,800	£0	£0	£0	£0	£1,800
	Sewers, Drains, SUDs	£0	£0	£0	£0	£0	£0
	Telecoms	£0	£0	£0	£0	£0	£0
	Waste	£1,036	£1,088	£834	£591	£450	£4,000
Social infrastructure		£137,982	£137,268	£93,278	£74,868	£51,085	£494,480
	Education	£93,444	£98,063	£75,226	£53,296	£40,609	£360,638
	Fire, Ambulance, Police, CCTV	£586	£12,584	£0	£9,097	£971	£23,238
	Health services	£7,383	£7,748	£5,944	£4,211	£3,209	£28,494
	Community facilities	£14,758	£738	£443	£0	£0	£15,940
	Leisure and sport	£21,811	£18,134	£11,664	£8,264	£6,297	£66,170
Transport		£156,780	£170,780	£0	£0	£0	£327,560
	Strategic connections: DLR, London Underground and Rail	£156,780	£170,780	£0	£0	£0	£327,560
	Local connections, including multimodal links and public realm	£158,728	£68,144	£29,467	£18,846	£9,065	£284,250
	River transport	£7,000	£0	£0	£0	£0	£7,000
	Bridging opportunities	£0	£27,107	£10,843	£0	£0	£37,950
Total		£503,665	£412,746	£134,422	£94,304	£60,601	£1,205,738

Source: PBA

Analysing estimated funding

We have analysed funding available

7.11 The infrastructure funding analysed in the course of this study is as following.

- Funding from mainstream public sources. We have assessed the potential availability of mainstream public funding to pay for the infrastructure requirements resulting from the growth.

- Funding from S106/S278 'pot' obtained from planning permissions which have already been granted.
- Estimated funding from developer contributions - most likely captured under S106/S278 - on potential growth (permissions which have yet to be granted).
- Estimated funding from CIL on potential growth (permissions which have yet to be granted). We have calculated total receipts on the basis of current agreed CIL rates.

Understanding estimated funding for infrastructure

7.12 It is important to point out that the level of developer contributions available on permissions yet to be granted is highly sensitive to assumptions made in the viability testing process, and to assumptions made about the ability of S106 policies to successfully capture the developer contributions which should, in theory, be available. Much of this difficulty is due to regulations governing the application of S106 policies and the pooling of S106 money. We have explained these issues in more detail in paragraph 3.35 onwards.

Putting costs and funding together

We start by presenting the funding gap using mainstream funding, the already secured S106 and CIL, and assuming CIL contributions at current rates. At 35% affordable housing, there is a funding gap of £162m (maximum growth scenario) to £197m (low growth scenario) on infrastructure attributable to IoDSP

7.13 While there is a large funding gap, it should be borne in mind that the OAPF plan period will run until 2041/2. Assuming a start year of 2017, that equates to a funding gap of between £6m to £8m pa, depending on the growth scenarios.

Table 7.4 Estimated headline costs and funding, showing residual funding gap (assuming CIL receipts at 35% affordable housing) (£000s) (low, high and maximum growth scenarios)

35% affordable		Low	High	Maximum
Total infrastructure cost		£1,008,234	£1,121,895	£1,205,738
comprised of	Social infrastructure	£379,877	£461,837	£494,480
	Transport	£574,260	£605,960	£656,760
	Utilities	£54,098	£54,098	£54,498
Total identified infrastructure funding		£811,415	£938,384	£1,043,440
comprised of	Mainstream funding assumed	£553,964	£596,294	£613,965
	S106 contributions from permitted developments	£86,244	£86,244	£86,244
	LBTH CIL from permitted developments	£77,002	£77,002	£77,002
	LBTH CIL from potential growth	£94,205	£178,845	£266,230
Funding gap (-)/surplus		-£196,820	-£183,511	-£162,298

Source: PBA

Table 7.5 Estimated headline costs and funding, showing residual funding gap (assuming CIL receipts at 40% affordable housing) (£000s) (high growth and maximum growth scenarios)

40% affordable		High	Maximum
Total infrastructure cost		£1,121,895	£1,205,738
comprised of	Social infrastructure	£461,837	£494,480
	Transport	£605,960	£656,760
	Utilities	£54,098	£54,498
Total identified infrastructure funding		£924,627	£1,022,961
comprised of	Mainstream funding assumed	£596,294	£613,965
	S106 contributions from permitted developments	£86,244	£86,244
	LBTH CIL from permitted developments	£77,002	£77,002
	LBTH CIL from potential growth	£165,087	£245,750
Funding gap (-)/surplus		-£197,268	-£182,777

Source: PBA

Changes in the market mean that potential developer contributions may rise in future. We have estimated these increases. We can use this to close the funding gap

- 7.14 As explained in detail in paragraph 5.16 above, changes in the market and in likely policy around denser development combine to mean that an increase in developer contributions could be possible in future. These developer contributions could be obtained through CIL or S106, but an increased CIL charge appears to be the most likely route. We show the funding gap on the table below, having factored in the additional contributions after an allowance for a buffer (see paragraph 5.28).

Table 7.6 Estimated headline costs and funding, showing residual funding gap with future developer contribution increases (assuming CIL receipts at 35% affordable housing) (£000s) (low, high and maximum growth scenarios)

35% affordable	Low	High	Maximum
Total infrastructure cost	£1,008,234	£1,121,895	£1,205,738
Total identified infrastructure funding	£811,415	£938,384	£1,043,440
Potential additional contributions	£15,000	£262,000	£362,000
Funding gap (-)/surplus	-£181,820	£78,489	£199,702

Source: PBA

- 7.15 Once we have made an allowance for a buffer, in contrast to the high and maximum growth scenarios which indicates that capturing increased developer contributions could close the funding gap, the low growth scenario does not generate any additional scope for contributions. This suggests that if lower density development were delivered, it may not deliver a policy-

¹² We do not show the low scenario because, as shown in Table 4.1, at 40% affordable housing, development is not viable under the low growth scenario

compliant level of affordable housing and would not have any scope to secure further contributions to close the funding gap. The same is true when we look at the potential additional contributions available under the 40% high and maximum growth scenarios¹², as shown below.

Table 7.7 Estimated headline costs and funding, showing residual funding gap with future S106 receipt estimates (assuming CIL receipts at 40% affordable housing) (£000s) (high growth and maximum growth scenarios)

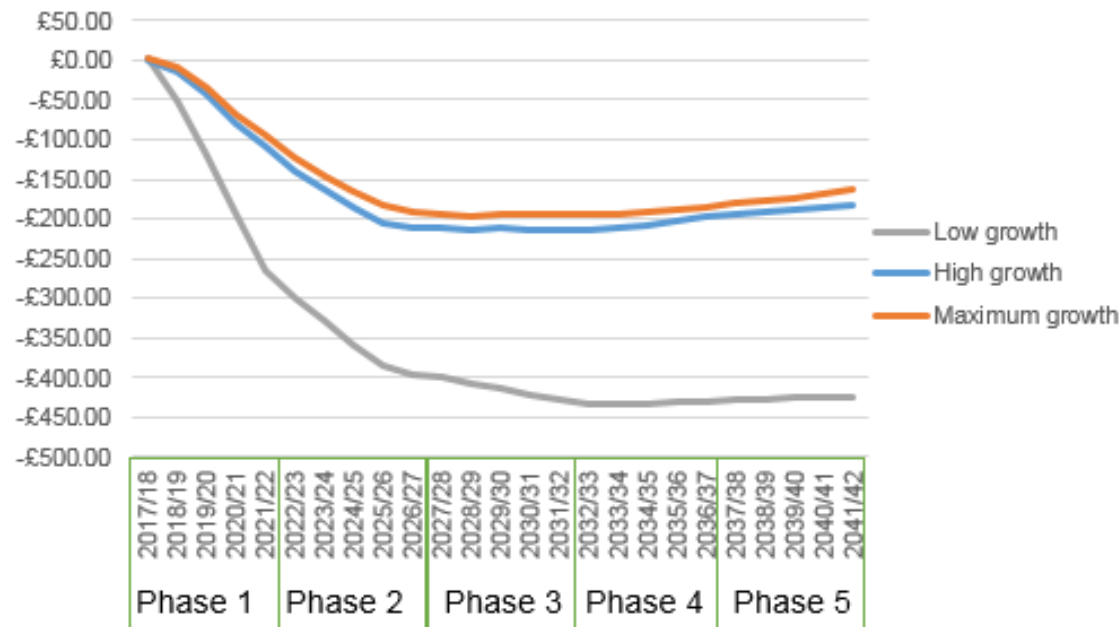
40% affordable	High	Maximum
Total infrastructure cost	£1,121,895	£1,205,738
Total identified infrastructure funding	£924,627	£1,022,961
Potential additional contributions	£19,000	£14,000
Funding gap (-)/surplus	-£178,268	-£168,777

Source: PBA

There are significant cashflow issues in the first fifteen years

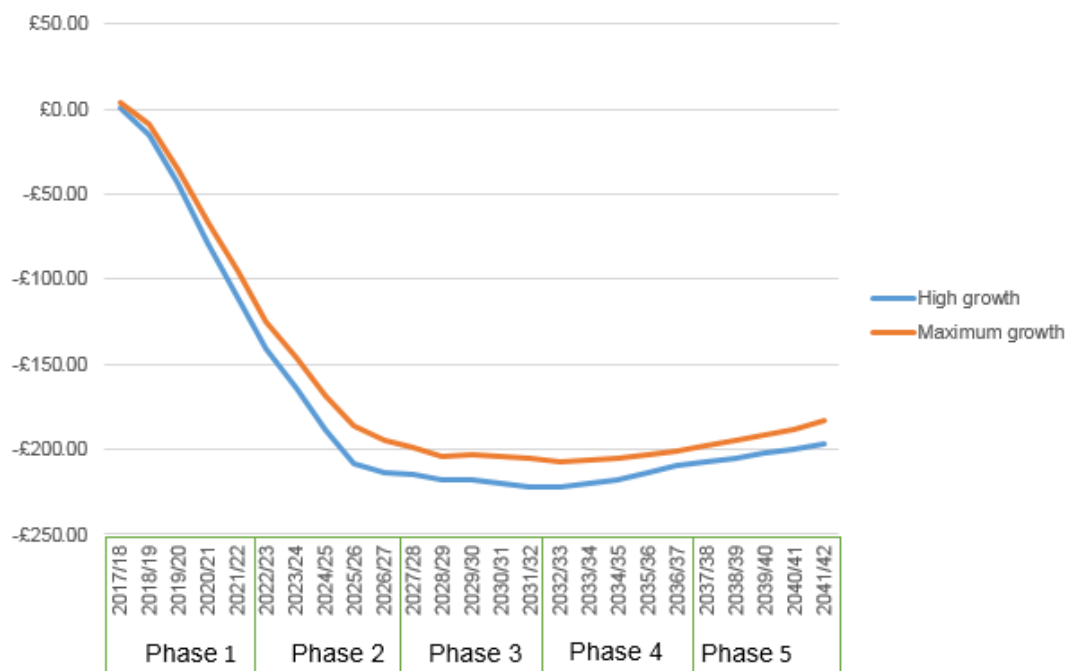
- 7.16 We used our work to look at particular cost and funding 'pinch points': for example, the times where up-front infrastructure requirements and costs run ahead of funding.
- 7.17 The success of delivering the vision will, to a large degree, depend on the ability to deliver the infrastructure required in the first five to ten years. One of the fundamental requirements therefore is that the necessary funding is in place to fund infrastructure required in the short term. If a development is clearly not viable in the first five to ten years, it is unlikely that a developer will proceed. Given the greater level of uncertainty about what is likely to happen after the first five years, developers are typically less concerned with the detail of how these phases will be brought forward.
- 7.18 The charts below show the cumulative infrastructure cashflow situation. It is important to be clear that this is not an individual developer's cashflow for a development. Rather, it is a simple view of the total infrastructure costs attributable to IoDSP development set against the available funding receipts). This shows a peak deficit of c.£300m which may need to be funded from alternative sources.
- 7.19 At this stage, this view assumes no business rate capture policy, TIF or stamp duty retention.

Figure 7.3 Cumulative infrastructure cashflow per annum showing infrastructure costs attributable to IoDSP development, against infrastructure funding (35% affordable housing)



Source: Cushman & Wakefield, PBA. Figures are rounded. Affordable Housing is assumed at 35% across all phases

Figure 7.4 Cumulative infrastructure cashflow per annum showing infrastructure costs attributable to IoDSP development, against infrastructure funding (40% affordable housing)



Source: Cushman & Wakefield, PBA. Figures are rounded. Affordable Housing is assumed at 40% across all phases

Towards closing the gap in the main scenarios

7.20 Here, we discuss how the funding gap could be closed in the main growth scenarios.

Reducing costs: cost engineering

7.21 Cost-engineering larger projects might yield substantial savings, but we caution that that this process would have to be carried out carefully, because good quality infrastructure can raise values, as well as create costs. Cutting infrastructure costs might mean cause sales values to fall. This might not improve the viability position. In these circumstances, cutting infrastructure costs would be a false economy.

Reducing costs: prioritising projects

7.22 We have analysed the proposed infrastructure items by levels of priority. The prioritisations presented below are very high level, and a more refined approach would be needed in association with elected members and their officers.

7.23 It may be possible to reduce the funding gap through that more careful review of priorities. At the moment, our high-level prioritisation suggests that 90% of costs are in the top two prioritisation categories, and so the scope for cost savings is limited.

7.24 These are high-level conclusions. Any prioritisation that does take place needs to be undertaken carefully to ensure that the removal of infrastructure projects does not have a detrimental impact on values, and thus overall scheme viability.

Table 7.8 Infrastructure costs attributable to IoDSP by priority (£000s) (maximum growth scenario)

	1) critical enabling	2) essential mitigation	3) high priority	4) desirable	Total
Electricity	£47,498				£47,498
Gas	£1,200				£1,200
Telecoms	£0				£0
Potable water	£1,800				£1,800
Waste			£4,000		£4,000
Education		£360,638			£360,638
Fire, Ambulance, Police, CCTV			£23,432		£23,432
Health services		£28,494			£28,494
Leisure and sport		£66,170			£66,170
Community facilities		£15,940			£15,940
Strategic connections: DLR, London Underground and Rail	£311,560		£4,000	£12,000	£327,560
Bridging options				£37,950	£37,950
Local connections, including multimodal links and public realm	£111,200	£157,500	£7,500	£8,050	£284,250
River transport		£7,000			£7,000
Total	£473,258	£635,742	£38,932	£58,000	£1,205,932

Source: PBA

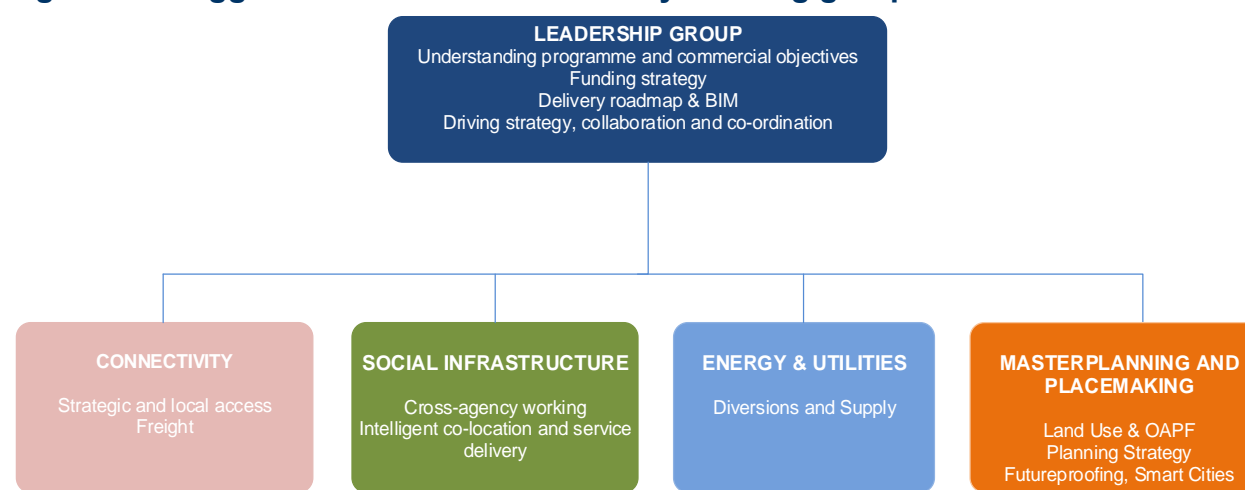
Securing more funding: on-going monitoring to identify new sources

- 7.25 The gap we have identified is based on the current understanding of available funding. This may change in the future and there may be opportunities as new funding streams relevant to the growth in the Isle of Dogs become available which could assist in shrinking the gap. This will require monitoring to ensure that applications/bids are made at the appropriate times.

8 DELIVERY RECOMMENDATIONS

- 8.1 Development at Isle of Dogs and South Poplar is of such a scale that planning authorities will need to deal cover a huge range of very detailed issues and make good decisions in little time. Planning authorities may need to set up a structure that will help to bear some of the load that those stresses generate.
- 8.2 Our suggested structure is set up in the diagram below. We explain the structure in this chapter.

Figure 8.1 Suggested infrastructure delivery steering groups



- 8.3 There will be frequent linkages between these different groups. For example, utility strategy and connectivity strategy will be interdependent, because transport infrastructure will frequently create the development arteries into which new services and supplies can be integrated.

Leadership steering group

This is an ambitious growth programme, and clear leadership will be required

- 8.4 Based on the quantum of infrastructure needed and 25-year-plus timeframe, development of the vision at the Isle of Dogs is likely to need a long-term approach. Even in the lower growth scenarios, the scale of growth described in plans is likely to require high quality leadership if it is to be successfully delivered.
- 8.5 There may be a need to invest in a delivery structure with staff resources to bring forward development around programme initiation, enablement, delivery and operation. A new, possibly separate structure could be needed to ensure delivery in the study area and manage the various steering groups which we are proposing.
- 8.6 Various models have been developed, both in London and around the country. Stakeholders could review those models, with a view to understanding which delivery mechanism would be best suited to conditions in the IoDSP study area.

Steering group and stakeholder co-ordination

- 8.7 Successful delivery of growth will require the co-ordination of a very wide range of different actors, interests and land ownerships. Below, we envisage dealing with many of these issues by theme (for example, around utilities, connectivity or social infrastructure). However, there may be issues which straddle these categories, or are more usefully related to the delivery of certain geographies rather than certain themes. In these instances, we envisage that the Leadership group should identify the issues that might otherwise fall between these thematic gaps, and make sure that proper roles and responsibilities are allocated. We understand that this geographically driven approach is apparently happening in South Poplar where Billingsgate, THC, TfL and a community group which all own land around Aspen Way are currently working together to resolve infrastructure and planning issues. This group is ensuring that infrastructure which affects more than one site or interest is being delivered strategically, to the benefit of the area as a whole.

Work should start on narrowing the funding gap and addressing cashflow difficulties

- 8.8 Fundamentally, there are three solutions to a funding gap and cashflow problem: raising more funding (including borrowing), cutting costs, or delaying spend.
- 8.9 We have looked at the possibilities for increased funding earlier in this report. The leadership and futureproofing group could supervise the production of bids for funding.
- 8.10 Costs could be reduced in the following ways.
- Infrastructure could be prioritised, and lower priority infrastructure dropped. Properly, these decisions about priorities rest with elected representatives and their officers on the basis of good quality information about what is realistically possible. We have outlined some broad priorities in this report, but expect that more work in this area will be needed. We suggest that the planning authorities may need to prioritise both within theme areas (say, prioritising the most important transport projects) and also between theme areas (say, deciding to invest in open space, rather than transport, or vice versa).
 - Value engineering could reduce infrastructure costs. However, we caution that, if done badly, this process could destroy more value than it saves in costs, leaving the development in a worse position overall.
 - Affordable housing requirements. Revision of, or re-profiling affordable housing provision in view of the need to balance other key requirements such as infrastructure. Such an approach would need to take account of housing need as evidenced in latest SHMA and wider planning objectives. Clearly, whether or not this is acceptable is a choice that can only be made by democratically elected politicians.

Innovative funding and financing should be investigated

- 8.11 Planning authorities should undertake further studies into potential funding solutions to establish which are the most appropriate to use in this location. Business Rate Retention might be particularly helpful: we have shown that, when fully built out, business rate revenue will be substantial. Stamp Duty Retention may form part of that review. The political as well as technical implications of different mechanisms will need to be understood.

- 8.12 The steering group could also keep a watching brief around new Government financing schemes. Housing Infrastructure Fund is one example.

The forthcoming OAPF could be translated into an infrastructure delivery 'Roadmap'

- 8.13 The Roadmap would need to be a very practically orientated project plan that would help to get infrastructure actually in place. It would take a very direct, task-oriented approach to delivery. It would undertake the following tasks.
- Identify tasks on the critical path, set dates for those issues to be resolved, and clarify delivery roles and responsibilities for different organisations and individuals;
 - Identify and help manage delivery risks. Other risks include cost escalation, the provision of land and powers for proposed infrastructure projects, the assessment of the financial and business cases, and the identification and co-ordination of utility provision.
 - Focus on how any problems will be resolved – in a very head-on way;
 - Define issues in time sequence. This would allow the focusing of resources on short term issues and a process of active planning for medium term issues. Longer-term problems (where it is clear that fundamental changes in funding regimes or market conditions are required) could be left for future work;
 - Help the political process by further clarifying decisions that need to be taken, when they need to be taken, and what the ramifications of choices might be. This will be an ongoing issue throughout the development period.
- 8.14 This could have a very important role in getting projects funded, developed and delivered. A team would need to be resourced to take this forward.

The leadership group could be the 'owner' of Building Information Modelling (BIM) techniques to improve the efficiency of infrastructure delivery

- 8.15 Building Information Modelling (BIM) techniques could be used to ensure a highly efficient approach to utilities delivery at IoDSP.
- 8.16 The full application of BIM techniques can need finalised building designs, but the approach we are describing here seeks to apply BIM concepts to the planning and delivery of infrastructure, potentially as part of a 'Roadmap' type project described above.
- 8.17 The right custodian for a BIM model could be the leadership group, so that all other delivery groups are inputting into the baseline, and are continually building the model over time.
- 8.18 A BIM approach to infrastructure planning could be run through a GIS based model then later transferred to a full 3D modelling package once a masterplan 'fix' is reached (at least for the primary infrastructure). This would highlight major delivery, cost and cashflow issues over time, and by place.
- 8.19 The benefits of this approach could be as follows.

- Cost control: integrated building and infrastructure design in a BIM format can drive cost modelling, allowing better cost control.
- Cashflowing investment: the output allows total cost and cost phasing to be understood more accurately, allowing better control of cashflow.
- Site sequencing: together, the costing and phasing information may influence phasing of infrastructure delivery decisions around how, which and when particular land parcels are delivered.
- Intelligent co-ordination of delivery: BIM techniques mean that it is possible to spatially plan infrastructure more effectively. This will stop the often uncoordinated approach to laying utilities which results in roads being dug up and re-laid multiple times.

- 8.20 BIM techniques could also have important applicants in designing the strategy for the transportation of construction waste.

BIM could be linked to an integrated 3D model

- 8.21 An integrated 3D model could be developed to test the impact of environmental factors such as wind, sunlight, and visual impact – which could then be involved in planning for new development, utilities, and infrastructure.

Connectivity steering group

A connectivity steering group will be important

- 8.22 Transport infrastructure is the biggest cost at IoDSP. Much more detail will need to be developed. It would make more sense to do this in collaboration with landowners / developer and other stakeholders. It may therefore be useful to establish a Transport and Logistics Steering Group.
- 8.23 The broad shape of the Group's future agenda is likely to include the following areas.
- Freight consolidation and movement of construction materials all need to be considered. The movement of construction materials will itself be a major issue in given this scale of development.
 - Funding will need to be sought from a range of sources and a basis to present the economic case for investment needs to be established.

Freight consolidation measures will be a major issue

- 8.24 Costs associated with possible freight consolidation initiatives are not currently included but further consideration to this aspect is required going forward.
- 8.25 The concept of freight consolidation in urban areas is promoted by local authorities as a means of reducing the number of delivery vehicles visiting an area of operation. As a consequence, it also supports:
- reductions in the number of vehicle kilometres

- better vehicle and driver utilisation for suppliers as a result of quicker turnarounds (and a potential reduction in the number of drop locations) and for deliveries through easier access to loading and unloading facilities at drop locations
 - improvements in volume/weight utilisation rates for vehicles on deliveries from the centre (and potentially for inward flows from suppliers too), thereby reducing the unit costs of transportation for the final delivery stage
 - fewer vehicles required within the area served by the consolidation centre
 - the ability to separate trunk movements from local deliveries, making the use of alternative modes and vehicle types more feasible (e.g. environmentally friendly vehicles such as bikes or electric vans within the urban area, and rail for trunk movements into the consolidation centre)
 - ease of access for suppliers to drop-off goods, reducing the time spent driving to the delivery address and accessing the point of delivery by the driver, who may only have a small quantity or a single item to deliver in any case
 - opportunities for revenue earning return loads.
- 8.26 The physical size of the consolidation facility does not have to be large, since the aim is to cross-dock consignments in a short timeframe (e.g. a day or two). Consequently, the freight consolidation centre (FCC) can be a modest building, starting at about 650 sq m for a dedicated facility. Some FCCs are set up using spare capacity in a larger warehouse which is a shared user approach. Here the facility would be much larger (e.g. 10,000 sq m), but the FCC would only occupy a very small portion of that space. Larger facilities can offer value added services such as providing secure stockholding areas for retail users, or removing packaging and packaging waste.
- 8.27 The cost associated with an FCC is very dependent on the rental cost of light industrial or warehouse units, but in London for a 900 sq m unit, this might range between £20,000 and £85,000 p.a., plus operating costs. An FCC can operate successfully with one warehouse operative, two drivers and an administrator. In general figures, the first and second year could be £80K-£100K for marketing and development costs; on-going operating costs circa £250k per year, depending on contract with third party logistics operator and potential income from user fees. A greater number of users could significantly reduce the operations cost.
- 8.28 The greatest challenge with the provision of consolidation centres will be ensuring that it is attractive for potential users and ensuring that it is self-financing. This will need to be developed through a Construction Logistics Strategy and partnership working with logistics firms and local business organisations.

Consolidation will need to be part of a package of measures

- 8.29 Different types of freight (eg delivery/servicing versus construction) require different mitigations. Consolidation is not a silver bullet and will require a whole host of other measures to support the area, importantly including behavioural change. Only a collective package will address the challenges.

Social Infrastructure steering group

Social infrastructure will be an important component of delivering 'good growth' at IoDSP

- 8.30 We suggest that, if further growth at IoDSP is to be successful, it will need to be 'good growth' – which could be defined as being inclusive growth targeted at improving conditions for all residents - both those that live here now, and those to be welcomed in future.
- 8.31 Social infrastructure provision will be an important part of securing this success. If growth is to be championed within local communities, it must represent a compelling proposition. The social infrastructure group may perform an important function both around advocacy and delivery, ensuring that the necessary social infrastructure is in place to deliver a very high quality experience for residents.

The social infrastructure steering group should ensure that service delivery remains aligned to resident populations

- 8.32 This study has used existing population yield statistics, together with advice from service providers, to work towards a sensible level of social infrastructure provision.
- 8.33 However, population profiles may adjust over time. It will be important for the social infrastructure group to reflect these in service planning, and then in the infrastructure which is delivered on the ground.

If public sector workstreams were put together, we might be able to identify valuable co-location opportunities to drive up quality whilst controlling costs

- 8.34 Service providers remain under great pressure to deliver services for less money. This is likely to continue to force significant innovations in service delivery and estates strategies. However, with skilful design, new patterns of integrated service delivery could both simultaneously reduce costs of the public estate and improve service quality.
- 8.35 For example, new schools could accommodate health, community, sports, and adult learning provision. Cross-silo working parties are likely to be needed to look at the opportunities. Opportunities will need to be revisited as the work proceeds. A steering group will be able to keep planning authorities informed of these changes and ensure that the future infrastructure is tailored to future delivery strategies.
- 8.36 For example, there is a good practice example in one London authority of a group that aligns infrastructure delivery to capital programmes. The group has been successful in co-ordinating and improving communication between services and determining service priorities. For the first time, there is a mechanism which aligns service priorities, the capital programme, the Local Infrastructure Plan and service delivery.

Energy and utilities steering group

An Energy and utilities steering group will be important

- 8.37 Delivering utilities infrastructure at IoDSP generates some significant costs. These costs are difficult to absorb because a) in many cases they will be incurred in advance of sales, and will therefore needed financing upfront, and b) they are of a sufficient scope to affect a number of different landowners, and will therefore require careful co-ordination between actors.
- 8.38 We recommend that a Utilities Steering Group be set up. This could look at a number of issues.

The steering group could manage information flows to provider companies

- 8.39 Utility providers are generally required by their respective regulators (Ofwat, Ofgem, Ofcom etc.) to produce a range of periodic plans detailing their asset management and improvement proposals for their networks. The length of coverage of the plans varies according to the utility but they are generally of between five and seven years' duration.
- 8.40 It will be highly beneficial to all stakeholders (planning authorities, the utility network providers and developers) if strategic developments such as IoDSP are brought to the fore at the earliest opportunity.

The steering group could co-ordinate upstream reinforcements

- 8.41 Our work on potable water, sewerage and electricity suggests that there either known shortages of upstream capacity (in the case of electricity) or a significant risk of such shortages (in the case of sewerage and potable water). Further work is needed here to understand the extent to which upstream reinforcements of utility networks (which supply the IoDSP area as a whole) will be necessary. This understanding would require a network study.
- 8.42 Without a firm commitment (demonstrated through the planning process) the utility providers are reluctant to commit to any resource to a comprehensive network review. They will however undertake such analysis if a contribution towards their costs are made. (As we have shown in the utilities tables, Thames Water in particular are seeking a share of these costs from the public sector).
- 8.43 This analysis would be sensible, because it means that utility companies can:
- Properly identify and plan reinforcement and upgrading works for the entire development, rather than doing ad-hoc works to cater for particular elements within it.
 - Better understand of the spend profile against time and understand potential benefits to be gained from an integrated approach.
 - The issue of who finances such works can also be dealt with. (Broadly, we assume that area-wide upstream reinforcement is the responsibility of utility companies).
- 8.44 The steering group could be used to co-ordinate this additional work. We would venture to suggest that the costs of doing this work in a timely way would be exceeded by the benefits of co-ordination and inclusion of future utility requirements in Asset Management Plans.

The steering group could help to organise finance for upfront infrastructure costs

- 8.45 The main issue is common to many of the utilities matters - this is the need for an equitable spreading of costs that are not capable of being borne by the utility providers across site developers. In providing supply reinforcements to a strategic site, there is a risk that all the costs will fall either on the first developer(s) or on the later ones (if new mains only become essential at that stage). It will be important to ensure that the costs are equitably borne by all the developers.
- 8.46 There are a number of examples of dealing with this problem.
- Some infrastructure contractors with stronger balance sheets have been willing to fund infrastructure up front through a forward funding arrangement (which can see the cost recovered through a charge per dwelling in this way or similar).
 - We are also aware of emerging agreements around the country which see a consortium of developers forming to requisition network improvements from a water supplier. This reduces the risk of major network improvement costs falling on an individual developer.
 - This group may wish to investigate how the utilities delivery in the area may obtain loan finance from public sector 'revolving' or 'evergreen' funds.

The steering group could help organise the provision of sites for the electricity sub-stations. This could be a major issue

- 8.47 As the provision of land for the 132kv sub-station facilities could impact significantly on one of the development parcels, some consideration also needs to be given as to how this should be dealt with equitably. This might include:
- compensation for the loss of developable area within that parcel through a land equalisation arrangement;
 - credit to the developer against S106 Agreement or CIL contributions; or
 - the power company could purchase a suitable site at market rates. Given the cost of land, it is not expected that this would be a feasible option, unless land could be purchased at a current use value (such as industrial values).
- 8.48 As the provision of land for the sub-station facility could impact significantly on one of the development parcels, some consideration also needs to be given as to how this should be dealt with equitably. We expect that further work will be required on this issue through the proposed Energy and Utilities Steering Group.
- 8.49 For the smaller sub-stations (e.g. 32kv), recent best practice examples – such as Highbury sub-station – allow sub-station land take to be dramatically reduced in comparison to land requirements even five years ago. It is also possible to incorporate these units into buildings dedicated to other uses, and allow the production of housing units in close proximity to the sub-station.
- 8.50 Even so, we are aware of recent experience at Vauxhall Nine Elms Battersea which suggests that this could be a major issue, so the issue is likely to need close attention.

Planning authorities could keep a watching brief on energy efficiency policy

- 8.51 The steering group could keep a watching brief on the emergence of new energy efficient technologies that could be applied. The overall targets in the London Plan relate to making carbon reductions. For example, an electricity-only solution might mean that gas provision to the site might be entirely avoided; if partnered with highly insulated development, this might both reduce energy costs and investment costs in the long term.

Masterplanning and placemaking steering group

Need to co-ordinate development and existing built environment and create holistic high quality places

- 8.52 The density of existing and potential development in this location is high and this scale of living will need to be carefully considered when implementing development in the area. The local authorities will need to consider whether a co-ordinated approach to design and delivery of public places, services and facilities will support the holistic provision of a high quality environment capable of accommodating high-density city living. Matters for consideration for any board may include:
- Costs associated with enhancement of local connections are considerable and the need for a modal shift from cars and public transport to walking and cycling is key to the success of movement in the area.
 - High-quality public places and destinations in restricted geographical spaces and potentially across multiple landownerships.
 - Innovation in the use of space, design and co-location of services.

The steering group could help the early adoption of 'Smart City' concepts at IoDSP

- 8.53 Smart city approaches could be adopted early at IoDSP. Key 'smart' sectors might include transport, energy, health care, water and waste. Smart systems are integrated and managed digitally in order to both influence and match user demand and infrastructure supply. The primary purpose of 'smart' is to better use system capacity by shifting demand peaks and therefore avoid or mitigate system investment costs. Consumers shifting their usage pattern may financially benefit as well. A consequence may be to reduce energy consumption and therefore CO2 reductions.
- 8.54 Much has been written on smart city systems. However, there is frequently relatively little definition of exactly what creating a smart city might involve, since they are more about the sum of the parts than any specific individual measure. Our approach is to try to think in output terms about how adopting a smart city approach might alter the built environment – and therefore what we need to be planning for now. At IoDSP, our findings suggest that smart systems could (for example)

- reduce energy demand by influencing use and better matching energy demand with supply, thereby reducing both end user costs carbon emissions;
- potentially remove the need for the gas utilities grid to be put in place, so reducing build costs and therefore creating more headroom for affordable housing and infrastructure contributions. (An intelligently managed electricity grid using the low carbon nuclear base load could mean that gas provision would be redundant);
- manage sewerage and drainage demand and storage systems, again reducing the need for infrastructure spending;
- integrating sensors (such as traffic flow and air quality sensors) and information output systems into furniture such as street lighting; and
- manage transport demand by influencing behaviour and smoothing peak demand flows at interchanges and across network hot-spots

Smart city work will require very high quality telecoms networks. Planning could start now

- 8.55 Given that an entirely new network will be needed at IoDSP, it is highly likely that the most up-to-date telecommunications systems will be put in place.
- 8.56 However, it may be advantageous for planning authorities to contact BT or a similar telecoms provider early in order to ensure that IoDSP forms part of investment plans. BT runs a number of exemplar projects across the UK, and could be encouraged to see IoDSP as a testbed for new technology. Similar approaches are under way at IoDSP, and it could be useful to review best practice developed at IoDSP in order to set out the best way to proceed.
- 8.57 BT have stated that they would like to see telecommunications provision planned in early, to reduce complexities around permission for street works. Vacant ducting/reserve channels could be provided for future rental/one off charges to reduce the need to dig up roads later.

Planning authorities and steering group could knit together BIM, smart city methods and an economic development strategy into a coherent whole

- 8.58 Above, we have suggested that planning authorities look at using BIM methods, 'smart' infrastructure, and ultra-fast G-Fast telecommunications provision. Rather than seeing these elements separately, planning authorities could bring these together as an integrated IoDSP 'BIM city' strategy. This would pull together these technologies and approaches and also integrate these methods into an overall economic strategy for the IoDSP area. For example, Christchurch in New Zealand is integrating smart city provision into its £40b 'sensing city' rebuilding programme, and using this to create a new digital economy for the city's future.

Recommendations on CIL charging

The local CIL charge is being reviewed

- 8.59 It is reasonable for a Local Authority to review its CIL rates regularly and we understand that the Tower Hamlets CIL is currently being reviewed. We are supportive of this as while we do not

intend that our work be used in any way to substitute for a separate CIL Viability Evidence Base, it does suggest that there may be scope for increasing some charging rates in some of the OAPF area. In particular, high values and densities in Zones 2 and 3 may be able to support increased rates.

There is also a national CIL review under way, which might lead to policy changes

- 8.60 CIL operations is being reviewed by Government, with the likelihood of more changes as a consequence. LBTH and GLA personnel must stay abreast of these changes and modify their approach accordingly.
- 8.61 If the regulations do change, it might be appropriate to review the approach to developer contributions and to attempt to obtain a larger share of the theoretical land value uplift to pay for infrastructure. Targeted S106 agreements (which might not be subject to rigorous pooling restrictions or the S106 'tests') might be the way of doing this.

APPENDIX A RESIDENTIAL BUILD-OUT ASSUMPTIONS

Using local knowledge and following discussions with landowners and developers, GLA and LBTH have reviewed the sites with and without planning permission and have made some adjustments. These adjustments are set out in this appendix.

A.1 Sites that have permissions but should not be treated as permitted

- ASDA, Crossharbour
- North Quay
- Riverside South

A.2 Estate regeneration

While the growth trajectories have at present assumed that additional housing will only start to come forward in the final 10 years of the study period, it is possible that delivery may commence sooner than this.

A.3 Annualised build-out rates

If the high growth scenario (49,000 dwellings) was annualised there would be a build-out rate per annum of over 1,900 dwellings. This is in the context of completions across the whole of LBTH of 1,840-3,634 units per annum over the last five years¹³

Build-out rates could be increased by suggesting a broader variety of housing products be brought to market. The objective would be to accelerate sales rates. Below, we explore those methods and their possible effects.

Evidence at the Stratford Olympics site suggests that PRS can increase delivery rates as occupation following completion is within much shorter timescale than private sales. Developers are willing to build at faster delivery rates because there is a much lower risk flooding the market as compared with homes for sale.

PRS deals may be popular on the IoD and so might provide a reason why housing output might run at a rate close to (or possibly exceeding) historic rates.

¹³ http://www.towerhamlets.gov.uk/Documents/Planning-and-building-control/Strategic-Planning/Monitoring-and-evaluation/20161102_5yrHLS_Statement_Final_ver.pdf

APPENDIX B APPROACH TAKEN TOWARDS ANTICIPATED DEMOLITIONS

B.1 Relationship between gross and net development

Within the study area there will be demolition of existing floorspace to accommodate growth. There is therefore a choice to be made between whether the DIFS is based on gross development (i.e. net additional development plus the re-provided development) and net development (i.e. only the net additional development).

The table below sets out the relationship between the gross and net additional residential development for each scenario.

The numbers in the table consists of as yet unbuilt development both with and without planning permission.

Residential development

Zone	Existing units to be replaced	Maximum growth scenario			High growth scenario		
		Gross	Net additional	Existing /gross	Gross	Net additional	Existing /gross
Zone 1 - South Poplar	1,582	10,929	9,347	14.48%	9,631	8,049	16.43%
Zone 2 - Canary Wharf		11,107	11,107		7,354	7,354	
Zone 3 - South Quay		13,258	13,258		12,585	12,585	
Zone 4 - Crossharbour	1,892	16,378	14,486	11.55%	11,515	9,623	16.43%
Zone 5 - Island Gardens	177	976	799	18.14%	631	454	28.05%
Total	3,651	52,648	48,997	6.93%	41,716	38,065	8.75%

B.2 Approach taken in the DIFS

Our broad objective in this study is to understand the infrastructure required to deliver growth on the Isle of Dogs and South Poplar. We therefore wish to use growth as a basis to calculate infrastructure demand and funding.

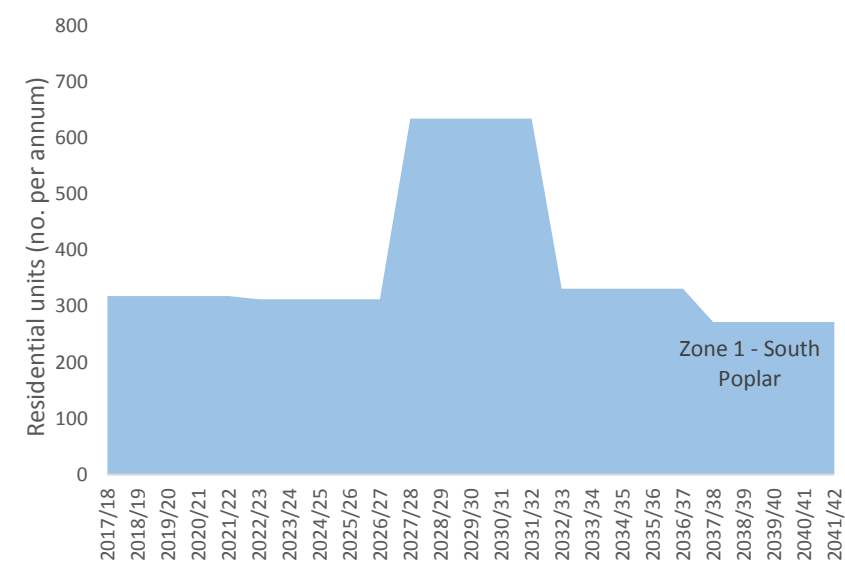
We have a choice to make about whether to use the gross development number as a basis for infrastructure calculations, or the net development number.

The area is by no means a blank slate, and a significant amount of infrastructure already exists to serve the existing employment and residential development. If we calculated infrastructure required by gross development, we would be effectively ignoring the existence of this infrastructure, and would arrive at an artificially high requirement for new infrastructure.

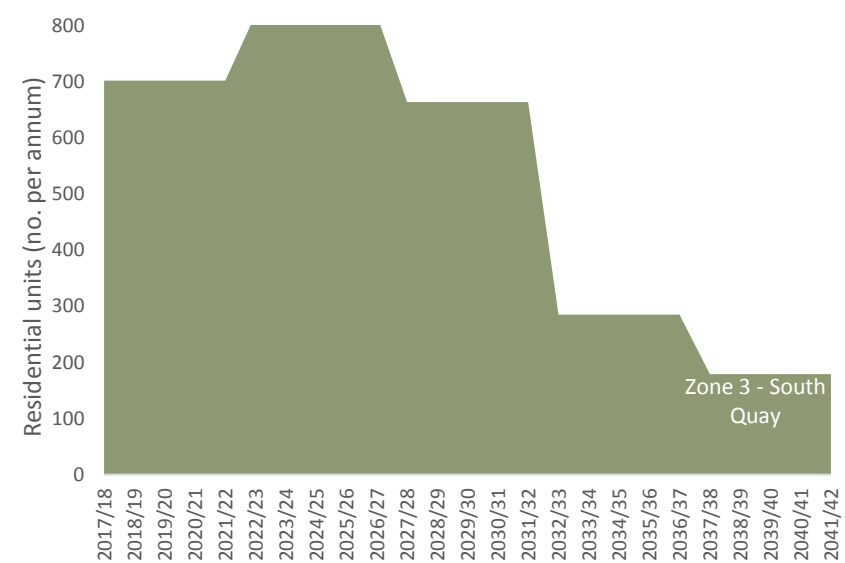
We have therefore chosen to calculate infrastructure requirements on the net additional development figure for utilities and social infrastructure. The transport requirement is calculated on the basis of the TfL model.

APPENDIX C MAXIMUM GROWTH SCENARIO BREAKDOWN

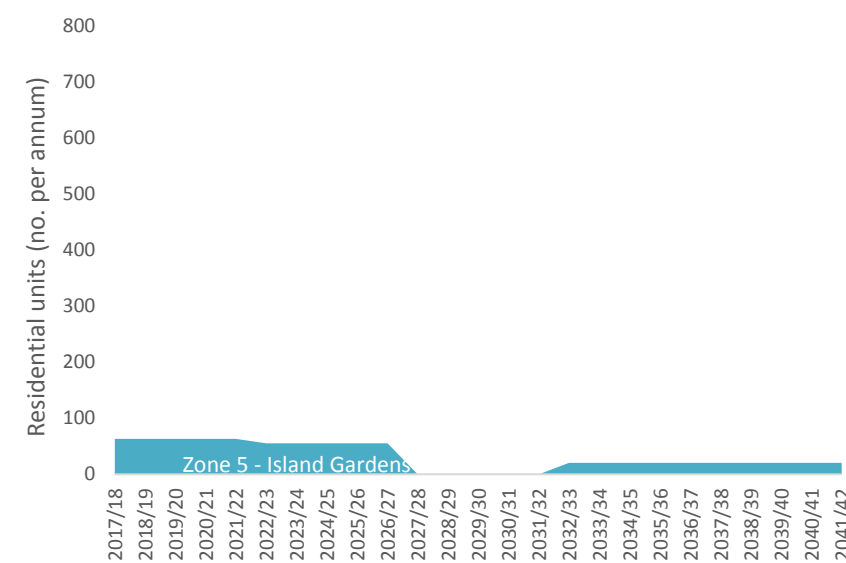
Zone 1 South Poplar



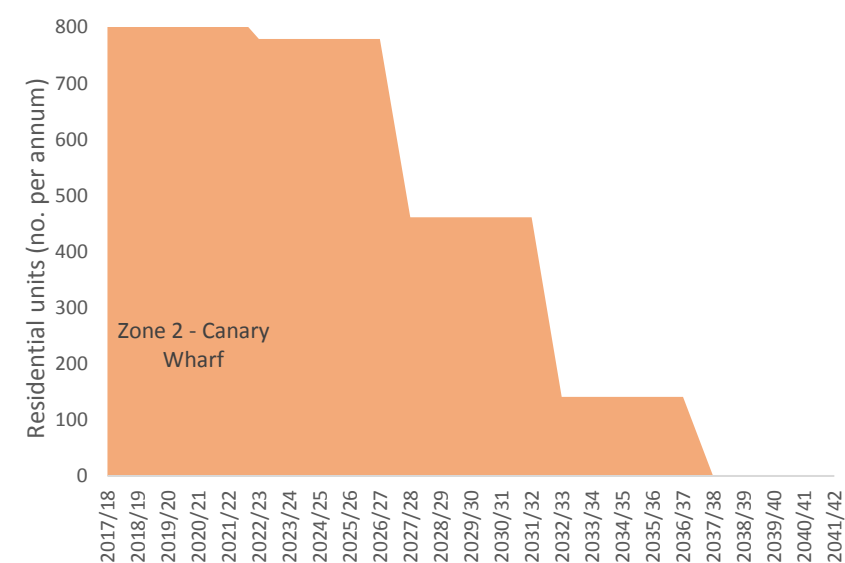
Zone 3 South Quay



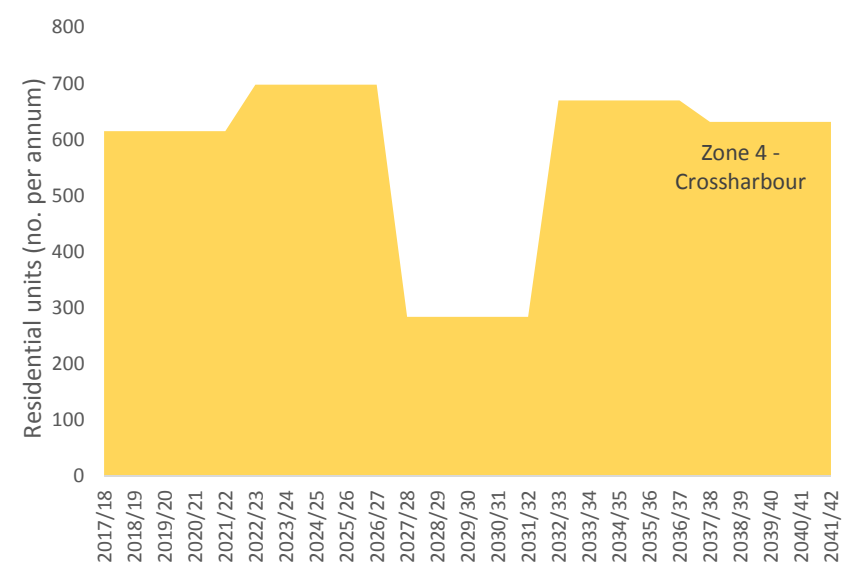
Zone 5 Island Gardens



Zone 2 Canary Wharf



Zone 4 Crossharbour



APPENDIX D VIABILITY TESTING APPROACH

A residual valuation has been carried out. The assumptions used in the residual valuation can be found in Appendix E.

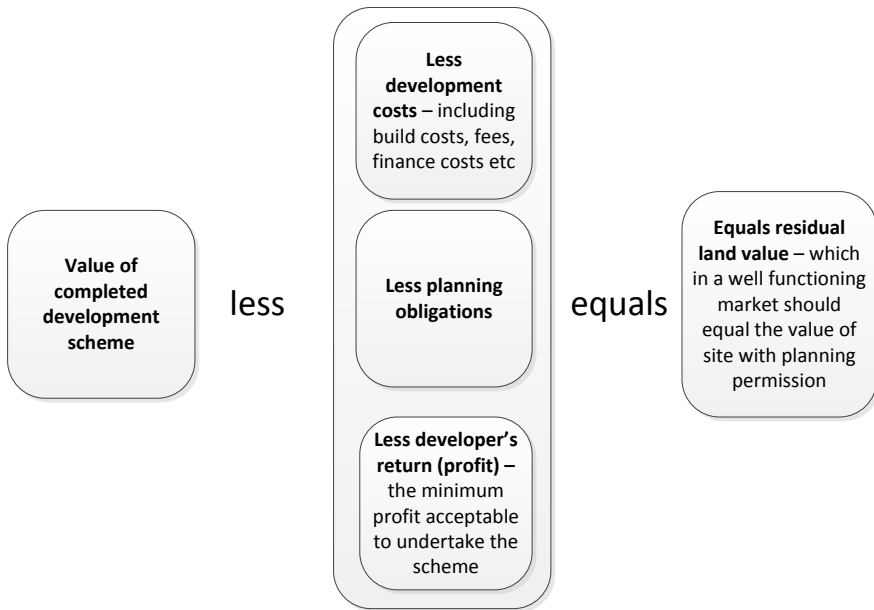
Residual valuation testing needs inputs on development costs and development value. In order to get these inputs, a property market assessment was carried out which analysed comparable residential and commercial schemes, and prevailing sales and rental values and yields.

In assessing the values of schemes we had regard to a range of data. This was supplemented by the experience obtained through discussions in other work with C&W agents and private developers, and C&W's experience in selling, acquiring and advising on development sites locally.

Our viability assessments are based on development appraisals of hypothetical schemes, using the residual valuation method. This approach is in line with accepted practice and as recommended by RICS guidance and the Harman report. Residual valuation is applied to different land uses and where relevant to different parts of the area, aiming to show typical site values for each based on a given mix and quantum of development. It is based on the following formula:

- Value of completed development scheme
- Less development costs – including demolition costs, clearance costs, build costs, fees, finance costs, infrastructure delivered directly by developers etc.
- Less developer's return (profit) – the minimum profit acceptable in the market to undertake the scheme
- Less policy costs – building in (for example) affordable housing other policy requirements
- Equals residual land value.

Figure 0.1 Residual value calculation



Having estimated the residual land value, we compare this residual value with the 'benchmark land value' or 'land cost', which is the minimum land value the landowner will accept to release his or her land for the development specified.

Benchmark values will vary to reflect the landowner's judgements, which might include the contextual nature of development, the site density achievable, current use value, the approach to the delivery of affordable housing (in the context of residential development) and so on. There are a wide range of permutations here. In order to make progress, we have to assume a central value, even though there could be a margin of error and significant fluctuations in practice.

- If the residual land value shown by the appraisals is below the benchmark value, the development is not considered financially viable. That means that unless the circumstances change it will not happen without further subsidy.
- If the residual land value shown by the appraisals is above the benchmark value, the development is viable. The excess of residual over benchmark value measures the maximum amount that may be potentially captured for developer contributions to infrastructure.

The arithmetic of residual appraisal is straightforward. However, the inputs to the calculation are hard to determine for a specific site (as demonstrated by the complexity of many S106 negotiations). Therefore, our viability assessments are necessarily broad approximations, subject to a margin of uncertainty.

APPENDIX E VIABILITY TESTING ASSUMPTIONS

E.1 Generic development schemes tested

Six development scenarios have been identified as typical of the form and scale of development proposals that are anticipated to come forward across sites identified by LBTH within the five DIF study zones. These scenarios form the basis of viability testing. They have been devised and agreed with the Client Project Team in consultation with C&W agents and cost advisors. The proposed development within each study zone will utilise either one or a combination of the schemes below to account for the proposed mix and scale of development.

The schemes tested are as follows.

- Scheme 1: Low rise residential (up to six storeys)
- Scheme 2: Mid-rise residential (more than 7 to 20 storeys)
- Scheme 3: Tall rise residential (20 to 40 storeys)
- Scheme 4: Very tall rise residential (41 to 60 storeys)
- Scheme 5: Office (up to 30 storeys)
- Scheme 6: Commercial other (ground floor leisure and retail)

As well as an anticipation of the overall form and scale of development proposals on sites identified by LBTH, the typologies have been selected based on:

- The mix and scale of uses within the development trajectory provided by the GLA in terms of its consideration of overall potential.
- Allowing for the variation of inputs which change based on height and density, namely:
 - Build costs changes relative to height (reflected in the construction cost summaries below).
 - Value premiums attributable to increases in private residential height and views (these are reflected in the value typologies below).

E.2 Scenarios tested

The base case is delivering the development trajectories for residential, office and other commercial provided by and agreed with the GLA; there is a low, a high and a maximum growth scenario.

E.3 Viability testing assumptions

We have set out the viability testing assumptions we have used in generic testing as follows.

Construction costs

Using BCIS sourced construction costs as well as having consulted C&W's cost consultancy team, we have derived the following rates from comparable evidence in line with the expected standard and scale of development. Rates assumed are the same across all five study zones in line with the assumption that they will not vary by geographical location within the study area. The exception to this is in relation to office development within Zones 1 (South Poplar) and 4 (Crossharbour) which we consider are likely to come forward at a lower specification than within

the other office stock in the area (Zones 2 and 3). For these zones, we have utilised a rate of £2,476 psm (£230 psf), derived from the 'Large Office' category in JLL's [] report.

Category	£ per square metre (psm)	£ per square foot (psf)
Low Rise private residential – up to six storeys	£2,530	£235
Low Rise affordable residential – up to six storeys	£2,153	£200
Mid Rise private residential – 7 to 20 storeys	£2,906	£270
Mid Rise affordable residential – 7 to 20 storeys	£2,476	£230
Tall Rise private residential – 21 to 40 storeys	£3,444	£320
Tall Rise affordable residential – 21 to 40 storeys	£2,931	£272
Very Tall Rise residential private 41 to 60 storeys	£3,767	£350
Very Tall Rise residential private 41 to 60 storeys	£2,931	£298
Office – up to 40 storeys	£3,229	£300
Other commercial (ground floor retail and leisure)	£1,500	£139

Area wide developer costs

While the DIF seeks to cover the infrastructure upgrades required in the area, PBA has calculated an overall (all zone) cost which developers will need to incur themselves directly. This is £60.3 million (low and high growth) and £60.7 million (maximum growth).

Site external costs

We have made an additional cost allowance of 10% for external costs including site servicing/ infrastructure, demolition, landscaping and internal roads.

Additional construction cost allowances

- Grey water recycling – £3.50 psf allowance for all build costs
- Envac waste costs – £1,000 per residential unit
- Combined Heat & Power – £2,579 per residential unit

Site decontamination and other site preparation costs

Site decontamination is a common exceptional cost which can present an issue for site viability where land is previously developed brownfield land. Typically, decontamination costs are treated as an additional cost over and above standard build costs. It is not possible to make an accurate estimate of decontamination costs in the absence of detailed site investigation information. We have assumed that when purchasing their sites, developers will have undertaken sufficient site due diligence to reflect any decontamination, and site preparation costs such as demolition, into their purchase price. Also, as a proxy to allow for an element of 'abnormal' and site preparation costs, we have allowed a 10% contingency (see the table below) which is a relatively high allowance.

Other development costs

We have derived these values from industry standard charges and current stamp duty rates.

Cost item	Amount
Professional fees	12.0%
Contingency	10.0% on construction costs
Letting agent fees	10.00%
Letting legal fees	5.00%
Sales agent fees	1.00%
Sales legal fees	0.50%
Marketing	1%
Purchaser's stamp duty	5.00%
Purchaser's agent fee	1.00%
Purchaser's legal fees and VAT	0.80%
Finance costs	6.50%
Developer's profit	20% on cost
Developer profit affordable housing	6%
S106 contribution	Excluded as we have assumed that this is an output of the viability assessment in terms of the value uplift which can be used to fund infrastructure.

Value inputs – residential

We have derived the following values from comparable evidence and discussions with C&W agents. We have used today's values and assumed that all proposed infrastructure has been delivered over the study period. Values captured are by use type and form, then by zone to capture value variances within the study area.

Affordable housing values are blended and presented on two bases:

- Affordable housing for consented development reflecting current LBTH local plan affordable housing policy.
- Affordable housing for unconsented development reflecting emerging/new LBTH local plan affordable housing policy.

While private values are specific to each of the residential typologies, affordable housing values are blended and applied across each of the residential typologies on a % basis reflecting the levels of affordable utilised in the model as part of the study analysis. The affordable housing value changes between zones is driven by variations in the value of intermediate tenures.

Category/zone	Capital value £ psm	Capital value £ psf
Low rise private residential (up to six storeys)	£7,266-12,648	£675-1,175
Mid-rise private residential (7 - 20 storeys)	£7,804-12,917	£725-1,200
Tall rise private residential (21 - 40 storeys)	£8,073-13,455	£750-1,250
Very tall rise private residential (41 - 60 storeys)	£8,342-13,993	£775-1,300
CONSENTED affordable residential	£2,583-2,917	£240-271
UNCONSENTED affordable residential	£2,196-2,443	£204-227

Value inputs – commercial office rents and capitalisation rates

We have derived these values from comparable evidence and discussions with commercial agents.

	Rent £ psm	Rent £ psf	Capitalisation rate
Study area	£237-484	£20-45	4.75-6.25%

Value inputs – other commercial (including retail and leisure) rents and capitalisation rates

We have derived these values from comparable evidence and discussions with commercial agents.

	Rent £ psm	Rent £ psf	Capitalisation rate
Study area	£215-753	£20-70	5.0-6.5%

E.4 The phasing of schemes

Modelling of development delivery on large individual sites is commonly done on a phased basis in high level development financial assessments to account for value uplifts over and above market value inflation. Multiple phases have not been assumed in the delivery of the projected delivery of residential and office space in the individual typology assessments, rather a single phase. The reason for this is firstly that we have assumed that all infrastructure proposed in the study is delivered on Day 1 and accounted for in values assumed. Secondly, we consider the Isle of Dogs and Poplar study area to have limited scope for a step change in value uplift compared with other study areas which have no or limited residential and/or office development.

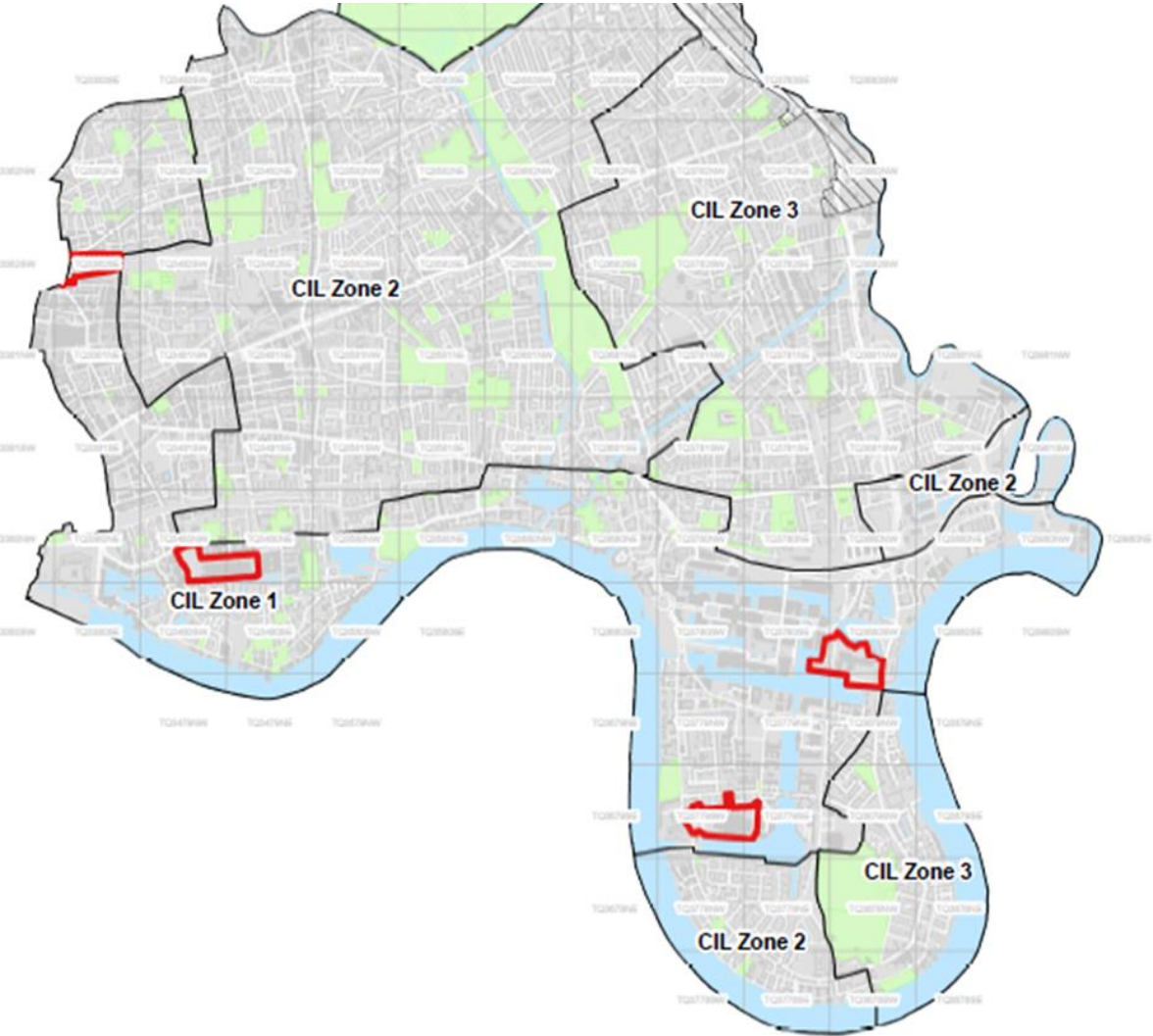
Whilst all schemes have been modelled as one phase, the sales rate assumption for residential schemes is relatively conservative at sub 10 units per month (without presales) or a lower amount with presales. For commercial schemes, we have assumed a void and rent free allowance of 24 months on all income; we would anticipate much of the development being subject to pre-lets.

E.5 Policy costs assumed

The following policy costs are assumed.

- Affordable housing policy: we test affordable housing at a range of points to understand the relationship between affordable housing, infrastructure funding and viability. We start at 35% affordable housing reflecting current planning policy. We also undertake sensitivity testing at 40%, then 45% and 50%. There is a 70:30 split between rented (split 50/50 social and living rent) and intermediate tenures in each case.
- Residential density standards: development projections provided by the GLA and LBTH set out the target number of homes on a given site. The densities used in this study are derived from the Vision.

- Average residential unit size: we have assumed that one residential unit has an average floorspace of 72 sq m / 775 sq ft (net sellable internal floor area of the dwelling). This is consistent with the London Design Guide (2-bed 4-person single storey dwelling)¹⁴.
- Mayoral CIL at the prevailing rate of £35/psm.
- Crossrail Funding Supplementary Planning Guidance (SPG) at the established rate for offices (£190/psm), retail (£121/psm) and hotel (£84/psm). These contributions are credited towards standard CIL payments.
- LBTH CIL rates (adopted April 2015) as set out in the table below. LBTH charging zones shown in the following map.



Source: LBTH

	CIL Zone 1 (£ psm)	CIL Zone 2 (£ psm)	CIL Zone 3 (£ psm)	Large allocated sites (£ psm)
Relevant DIFS zones	1, 2, 3, 4	1, 5	1, 3, 4, 5	2, 4
Residential	£200	£65	£35	Nil
Retail (except convenience supermarkets / superstores and retail warehousing)	£70	£70	£70	Nil
Convenience supermarkets / superstores and retail warehousing	£120	£120	£120	Nil
Hotel	£180	£180	£180	Nil
Offices	Nil*	Nil	Nil	Nil

*A CIL charge is applied to office space within part of Zone 1 (City Fringe) but this is outside the DIFS area.

Zone	Residential	Office	Retail / Other Commercial	Notes
Zone 1 - South Poplar	£124	£13	£70	Calculated at 50% CIL Zone 1, 20% CIL Zone 2 and 30% CIL Zone 3 for each applicable use
Zone 2 - Canary Wharf	£200	£-	£70	Calculated at 100% CIL Zone 1
Zone 3 - South Quay	£175	£-	£70	Calculated at 85% CIL Zone 1 and 15% CIL Zone 3
Zone 4 - Crossharbour	£151	£ -	£70	Calculated at 70% CIL Zone 1 and 30% CIL Zone 3
Zone 5 - Island Gardens	£52	£36	£70	Calculated at 55% CIL Zone 2 and 45% CIL Zone 3

Source: GLA

E.6 Benchmark land value

Benchmark land values (BLV), based on the current use value or alternative use value (AUV) of sites are key considerations in the assessment of development economics for testing planning policies and tariffs. Sites are generally previously developed. Clearly, there is a point where the Residual Land Value (RLV) (what the landowner receives from a developer) that results from a scheme may be less than the land’s current use value. Current use values can vary significantly, depending on the demand for the type of building relative to other areas (in this case within the borough).

We have appropriated the four BLV typologies developed by BNP Paribas for their viability assessments for LBTH. This ensures consistency in our approach with viability testing of local planning policy and at a high level the local development sites context. The four BLVs provide a broad indication of likely land values across the Borough. We have supplemented the four BLVs from the BNP study with an additional typology which relates to existing, Council-owned Housing Estates. We consider that these are such bespoke existing assets that a separate BLV category is required.

It is important to recognise that other site uses and values may exist on the ground. There will never be a single threshold BLV at which we can say definitively that land will come forward for

¹⁴ GLA (2010) London Design Guide
<https://www.london.gov.uk/sites/default/files/Interim%20London%20Housing%20Design%20Guide.pdf>

development and this is particularly the case in urban areas such as Canary Wharf with significant variations in existing densities. This is an accepted methodology in CIL studies and is predicated on the assumption that the DIF is the mechanism which enables these sites to deliver residential units/ commercial development in excess of what they could do without the DIF.

The ‘market value’ approach to calculating the BLV has major limitations in that it carries the risk of building-in assumptions of current policy costs rather than helping to inform the potential for future policy. There are weaknesses in using benchmarks based on bought and sold prices, most notably:

- Bids/ transactions for sites will often be based on assumption that planning policy requirements can be squeezed to below target levels.
- Developers often build assumption of growth in sales values into their appraisals which provides a higher site value. Our assessment is based on today’s values.

The five BLVs utilised are:

- Benchmark Land Value 1: This benchmark assumes higher value secondary office space on a hectare of land, with 40% site coverage and four storeys. The rent assumed is based on lettings of second hand offices in the borough at £25 psf with a £50 psf allowance for refurbishment and a letting void of three years. The capital value of the building would be £46.225 million, to which a 20% premium has been added, resulting in a benchmark of £55.471 million.
- Benchmark Land Value 2: This benchmark assumes medium value secondary office space on a hectare of land, with 40% site coverage and four storeys. The rent assumed is based on lettings of second hand offices in the borough at £17 psf with a £50 psf allowance for refurbishment and a letting void of three years. The capital value of the building would be £25.531 million, to which a 20% premium has been added, resulting in a benchmark of £30.637 million.
- Benchmark Land Value 3: This benchmark assumes lower value secondary office space or community use on a hectare of land, with 50% site coverage and two storeys. The rent assumed is based on such lettings of second hand premises in the borough at £12.50 psf with a £35 psf allowance for refurbishment and a letting void of three years. The capital value of the building would be £11.923 million, to which a 20% premium has been added, resulting in a benchmark of £14.308 million.
- Benchmark Land Value 4: This benchmark assumes lower value secondary industrial space on a hectare of land, with 60% site coverage and 1.5 storeys. The rent assumed is based on lettings of secondary industrial floorspace in the borough at £4.95 psf with a letting void of two and a half years. The capital value of the building would be £6.243 million, to which a 20% premium has been added, resulting in a benchmark of £7.497 million.
- Benchmark Land Value 5: This benchmark assumes that the land is a housing estate within the study area, with a density of approximately 60 dwellings per hectare. The value proposed is based on discussions with local registered housing providers who have acquired housing estates within the study area with no premium. It should be noted that we have not made an explicit allowance for compensation which may be required to achieve vacant possession or any enhanced affordable housing provision (above the overall level which is tested). This is on the basis that the density of the new scheme will allow for re-provision of all existing affordable housing with the allowance for the site.

When considering the likely value that a landowner will require to release their site for development, there is a generally accepted principle that a premium should be added to the value paid. In urban areas this can range from 10%-40%. For the purpose of this study, a 20% premium is included within the BNP figures which we consider to be reasonable. No premium has been applied in relation to the existing housing estates on the basis that the trigger for their release is less tied to achieving a premium on existing values.

Benchmark Land Value (BLV)	Value Per hectare
1 - CIL study, high office	£55,470,000
2 - CIL study, medium office	£30,637,000
3 - CIL study, low office	£14,307,000
4 - CIL study, industrial	£7,491,000
5 - C&W, Housing Estate, Regeneration	£4,223,000

APPENDIX F INCREASED EMPLOYMENT GROWTH SENSITIVITY

F.1 Introduction

We were asked to explore the implications of additional employment growth at the Isle of Dogs and South Poplar. The table below sets out the baseline level of commercial growth tested, which was constant in our low, high and maximum growth scenarios, together with the additional employment space.

Planning status	2017/18 to 2021/22	2022/23 to 2026/27	2027/28 to 2031/32	2032/33 to 2036/7	2037/38 to 2041/42	Sensitivity total
With permission	333,193	189,105	-	-	-	522,298
Potential growth	5,852	125,710	296,681	281,483	281,074	1,462,800
Additional employment space			157,300	157,300	157,400	472,000
Total	339,045	314,815	453,981	438,783	438,474	1,985,098

This additional 472,000 sqm represents a 31% increase in the quantum of non-residential growth we have tested in our main scenarios. It is anticipated that this additional space, which we have spread over the final three phases of the period, would be in Zone 2 (Canary Wharf) and Zone 3 (South Quay): 355,000 sqm and 117,000 respectively.

We have assumed that it is only in our high growth scenario that this increased quantum of employment floorspace might come forward.

F.2 Implications for costs and funding

We have made the following assumptions when considering the implications for costs and funding:

- Social infrastructure: there will be no implications because these costs (and funding) are driven by residential growth.
- Transport infrastructure: we have not made any adjustment to the transport package tested for the high growth scenario. In reality, it is likely that the costs will increase as the development could deliver a further 34,900 jobs which would place additional pressure on the transport network.
- Utilities infrastructure: an additional large 33kV transformer would be needed. This could be provided within one of the substations already identified as being needed.
- Funding: in relation to the main funding sources, unless the new CIL incorporates a commercial charge, the level of developer contributions through CIL will not increase significantly. We have not adjusted our commercial typologies to take account of this additional space; if the space is provided through higher rise, higher density development the building costs may increase which could have viability implications.

The table below sets out the sensitivity costs and the resultant funding gap:

High growth plus employment sensitivity 35% affordable		(£000s)
Total infrastructure cost		£1,209,432
comprised of	Social infrastructure	£494,674
	Transport	£656,760
	Utilities	£57,998
Total identified infrastructure funding		£1,043,504
comprised of	Mainstream funding assumed	£614,029
	S106 contributions from permitted developments	£86,244
	LBTH CIL from permitted developments	£77,002
	LBTH CIL from potential growth	£266,230
Funding gap(-)/surplus		-£165,928

F.3 Summary

We have presented a high-level view of what might happen with a substantial increase in employment development in the study area. This comes with the clear caveat that it does not include any additional transport infrastructure which we expect would be necessary to support such a substantial increase in development.

Additionally, there may be implications for build costs if the scale of development means that commercial development exceeds our typology of up to 40 storeys. This could reduce the pot of developer surplus which we explain in sections 4, 6 and 7 could be used to close the funding gap.