

Section 3



London Rail

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Mode:	London Rail
Project location:	London Borough of Newham
Estimated cost £m:	18
Next TfL gateway	D - Contract award

Purpose

More capacity is required on the Beckton line to reduce passenger congestion and overcrowding. Passenger numbers are rising due to commercial and residential growth in the Canary Wharf area, an increase in the number of events held at ExCeL and demand during the 2012 Games. This project offers best value-for-money for capacity increases compared to other options. Part-funded by the Olympic Delivery Authority.

Outputs

The project will increase the capacity on the east route to and from Beckton by upgrading stations for three-car operation. Wider stairs and an additional lift will be installed at Prince Regent station, and a new 'scissors' crossover to the west. Custom House station will also have an extra lift installed.

Improving transport capacity

Increase capacity of each Beckton train by 50 per cent. Journey time reliability maintained by keeping dwell-times short.

Improving journey experience

Reduced overcrowding.

Improving accessibility

Increased social inclusion through supporting regeneration, which provides more homes and jobs. Accelerated regeneration in Royal Docks.

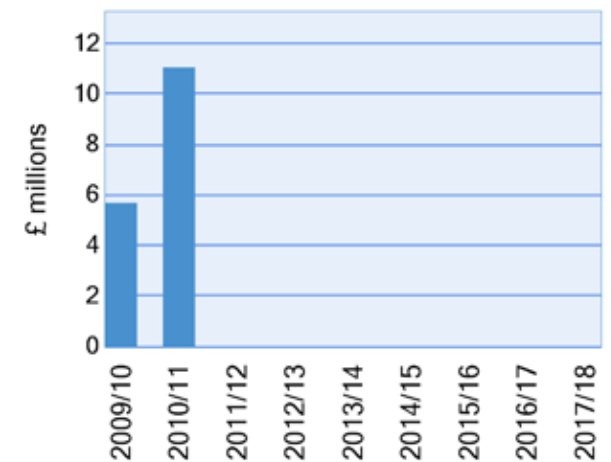
Reducing CO2 emissions

The resulting shift from private car usage will reduce CO2 emissions. Increased energy use will be offset by efficiencies.

Milestones

Jul	2009	Complete enabling works
Aug	2009	Award construction contract
Mar	2011	Construction work complete
May	2011	3 Car operational capacity available

Spending to 2017/18



Mode:	London Rail
Project location:	Poplar, Lewisham, Bank and Tower Gateway
Estimated cost £m:	269
Next TfL gateway	E - Project close

Purpose

More capacity on the Bank/Tower Gateway to Lewisham route is required to reduce passenger congestion and overcrowding. Passenger demand is increasing, arising from commercial and residential growth in the Canary Wharf area. This option offers best value-for-money compared to others, such as infrastructure and signalling works to increase train frequency.

Outputs

This activity covers the structural works (platform extensions, track realignment and viaduct strengthening) necessary for three-car operations between Bank/Tower Gateway and Lewisham. The project now also includes the junction at Canning Town to the Stratford International extension (formerly reported under LR-PJ10).

Improving transport capacity

Increased morning peak capacity from 17 trains an hour (two-car) to 15 trains an hour (three-car). Journey time reliability maintained by keeping dwell-times short. Provides additional cross-river public transport capacity

Improving journey experience

Overcrowding will be reduced.

Improving accessibility

Increased social inclusion through supporting regeneration, which provides more homes and jobs.

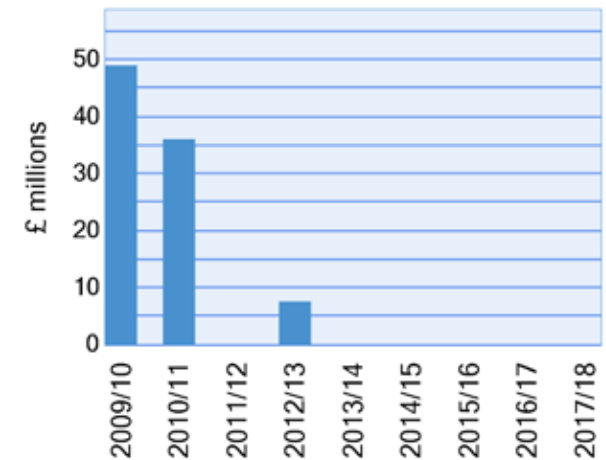
Reducing CO2 emissions

The resulting modal shift from private car use will help reduce CO2 emissions. Increased energy use will be offset by efficiencies.

Milestones

Oct	2005	TWA order powers granted
Mar	2007	Contract award
Oct	2009	Complete New South Quay station
Oct	2009	Complete Westferry station
Jan	2010	Bank Lewisham service operational
Jan	2010	Construction work complete

Spending to 2017/18



Mode:	London Rail
Project location:	Poplar - Woolwich Arsenal
Estimated cost £m:	9
Next TfL gateway	E - Project close

Purpose

Levels of demand expected during the 2012 Games will require three-car operations to and from Woolwich. With the exceptions of East India and Blackwall, all other stations on the Woolwich-Bank/Tower Gateway route will be able to accommodate three-car operations as a result of planned and ongoing schemes.

Outputs

This activity covers the infrastructure upgrade at Blackwall and East India stations. In addition, signalling, communication and power modifications between Poplar and Woolwich stations will be delivered to allow three-car operations to and from Woolwich Arsenal during the 2012 Games.

Improving transport capacity

The capacity of each Poplar-Woolwich Arsenal train will be increased by 50 per cent. Journey time reliability will be maintained by keeping dwell-times short. Provides additional cross-river public transport capacity.

Improving journey experience

Overcrowding will be reduced.

Improving accessibility

Increased social inclusion through supporting regeneration, which provide more homes and jobs.

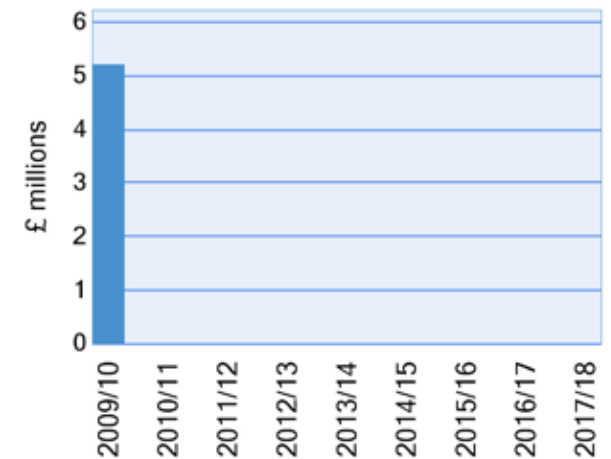
Reducing CO2 emissions

The resulting modal shift from private car use will help reduce carbon dioxide emissions. Increased energy use will be offset by efficiencies.

Milestones

Mar	2008	Start construction
Nov	2009	Construction work complete
Jun	2010	Poplar-Woolwich Arsenal service operational

Spending to 2017/18



Mode:	London Rail
Project location:	Stratford International - Canning Town
Estimated cost £m:	198
Next TfL gateway	E - Project close

Purpose

Serves an area identified for considerable development, currently with poor public transport connections, and also provides a high-frequency shuttle to Stratford International station. Will stimulate development and regeneration and effectively serve and interconnect sites for the 2012 Games.

Outputs

This project is for the extension of the DLR from Canning Town, using the existing North London Line alignment to Stratford Regional station. Provides three new intermediate stations and new construction onwards to Stratford International station. This will provide access to international and high-speed domestic commuter services.

Improving transport connectivity

The project will result in high public transport modal split for the Stratford rail lands development area (employees, 87 per cent rail/bus; residents, 62 per cent rail/bus). It will enable an estimated 12,000 daily passenger trips by 2015.

Improving transport capacity

Journey time benefits, to the extent of becoming financially positive (net financial effect) over 30 years. Ten trains per hour could be operated initially to and from Stratford International during peak periods.

Reducing CO2 emissions

The resulting modal shift will reduce CO2 emissions. Increased energy use will be offset by mitigation measures.

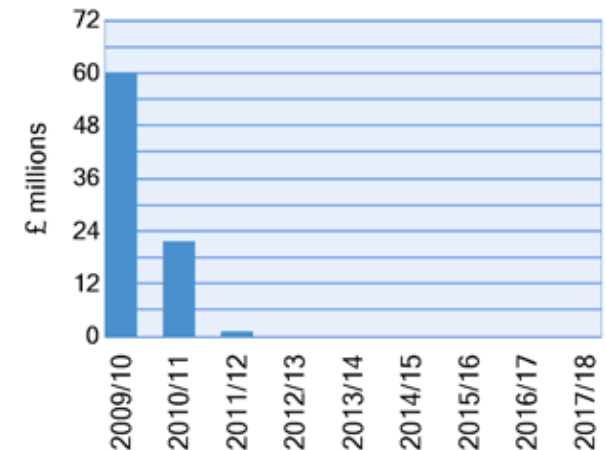
Improving accessibility

A fully accessible railway to the Lower Lea Valley. Increased social inclusion through the development of key regeneration sites and increased access to employment and opportunities in Stratford, the City and Docklands.

Milestones

Oct	2006	TWA order powers granted
Oct	2009	Complete Network Rail works
Nov	2009	Star Lane station construction work complete
Dec	2009	Canning Town station construction work complete
Jun	2010	Complete conversion of North London line to DLR
Jul	2010	Service operational

Spending to 2017/18



Mode:	London Rail
Project location:	DLR Network-wide
Estimated cost £m:	43
Next TfL gateway	E - Project close

Purpose

Twenty-two additional railcars are required to provide service levels that will be necessary to accommodate 2012 Games-related demand.

Outputs

Procurement and delivery of 22 additional railcars to provide extra services required during the 2012 Games.

2012 ongoing benefits

2012 Games demand can be accommodated. Legacy benefit of additional railcars for planned service upgrades and expansions.

Improving transport capacity

Increased capacity means overcrowding will be reduced. Maintains reliability levels and journey times.

Reducing CO2 emissions

The 2012 Games transport strategy is designed to discourage private car use. The scheme will contribute to this and have an indirect impact on reducing CO2 emissions.

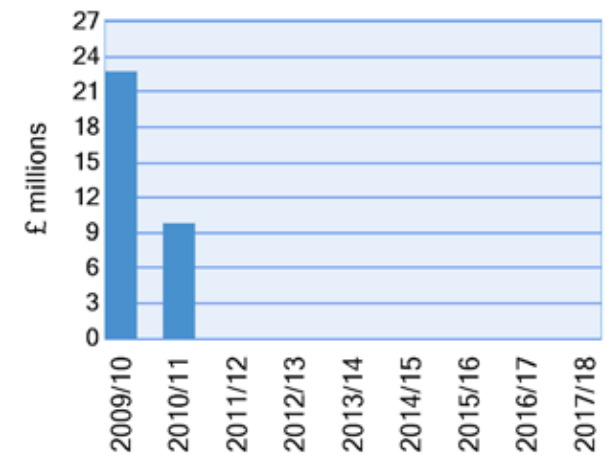
Improving accessibility

Additional capacity will ensure that the system remains fully accessible to all passengers.

Milestones

Sep	2009	First railcar delivered
Aug	2010	Final railcar delivered
Oct	2010	All cars in service

Spending to 2017/18



Mode:	London Rail
Project location:	Pan-London
Estimated cost £m:	32
Next TfL gateway	E - Project close

Purpose

The project will enable use of Oyster facilities across the National Rail network in London, in line with TfL's objectives.

Outputs

Installation of validators and communications equipment at all non-North London Railway stations in London.

Improving transport capacity

Benefits to passengers through reduced queuing times and increased flexibility, which will generate additional demand.

Improving accessibility

Social inclusion benefits from improved integration of transport services.

Cost and efficiency savings

Reduced fraud through hot-listing of stolen or lost Oyster cards.

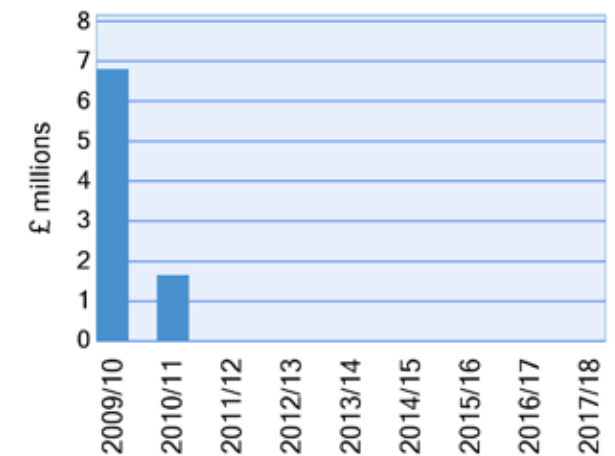
Reducing CO2 emissions

Positive impact from diversion of some journeys from road to rail.

Milestones

Nov	2009	Implementation complete
Jan	2010	Oyster pay as you go launch for National Rail

Spending to 2017/18



Mode:	London Rail
Project location:	Royal Mint Street
Estimated cost £m:	6
Next TfL gateway	E - Project close

Purpose

Ensures that the best possible reliability of train services is provided during the 2012 Games and thereafter. The current track layout on the west route (DLR's busiest part of the network) is not particularly suited to quick recovery following a disruption. Rearranging the track layout at Royal Mint Street will provide additional robustness for allowing operations to quickly return to normal when problems arise, essential when large numbers of people are using the railway.

Outputs

Provision of additional resilience at Royal Mint Street to improve system recovery time.

Improving transport capacity

Reliability maintained by allowing service recovery to be dealt with quickly and efficiently.

2012 ongoing benefits

Legacy benefit of continued reliability.

Improving accessibility

Ensuring DLR reliability is maintained will particularly benefit disadvantaged groups dependent on public transport.

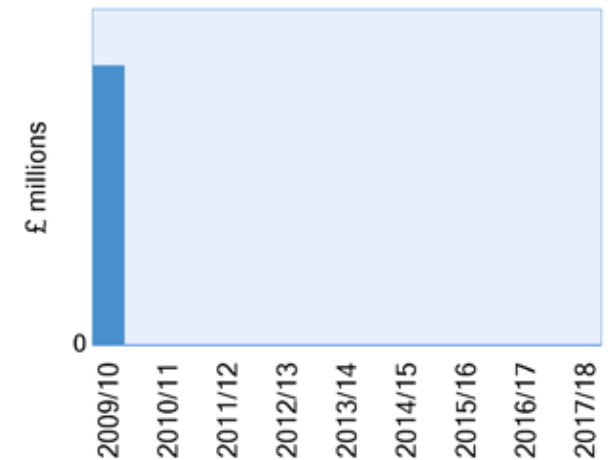
Reducing CO2 emissions

Operating an efficient service will discourage car travel.

Milestones

Mar	2007	Award design and construction contract
Jan	2010	Royal Mint Street junction remodelling complete
Mar	2010	Additional resilience in operation

Spending to 2017/18



Mode:	London Rail
Project location:	Hackney, Tower Hamlets, Lewisham & Bromley
Estimated cost £m:	986
Next TfL gateway	E - Project close

Purpose

The project includes upgrading the existing East London Underground line into a new heavy rail metro train service, reinstatement of disused National Rail routes to link with Dalston in the north, and an extension over existing lines to West Croydon and Crystal Palace in the south. The East London line will bring £10bn worth of economic regeneration benefits to some of London's neediest areas, and will increase capacity on key routes serving the 2012 Games. Four new stations will be built and will act as catalysts for considerable urban regeneration.

Outputs

Rail link between Dalston Junction, Crystal Palace, West Croydon and New Cross. Four new stations at Dalston Junction, Haggerston, Hoxton and Shoreditch High Street and six stations refurbished. 3km of new track to be constructed, 7km converted and 14km reused. Three major bridges and a new viaduct will be built. Interchange works at Dalston along with a major residential development. Maintenance facility at New Cross Gate, including an operational buildings complex.

Improving transport connectivity

Significant transport enhancements for two of the most deprived boroughs in the UK. Nine million new users of public transport.

Improving transport capacity

Twelve trains per hour in the centre section. Three million train kilometres operated per year delivering £60m journey time savings.

Improving air quality

Road decongestion benefits - the modal shift from car usage will have an impact on reducing noxious emissions and noise.

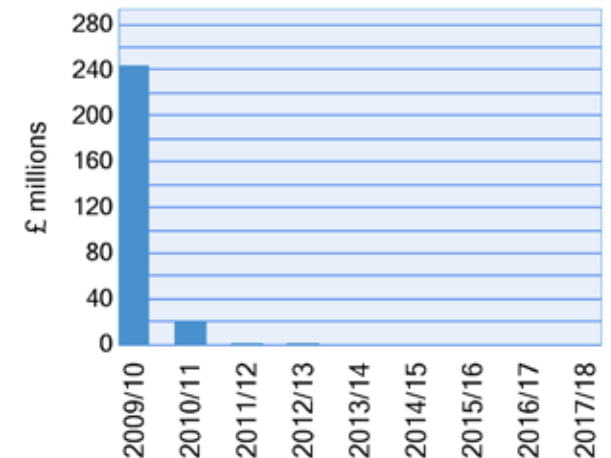
Improving accessibility

Step-free access at all new stations. Main works contractor that will encourage supplier diversity.

Milestones

Dec	2004	Commence procurement process
Oct	2006	Award main works contract
Dec	2007	Close existing East London line
Oct	2009	Test running commences
Jun	2010	East London line complete

Spending to 2017/18



Mode:	London Rail
Project location:	London Boroughs of Lewisham and Wandsworth
Estimated cost £m:	55
Next TfL gateway	D - Contract award

Purpose

The East London line Phase 2 project will deliver improved accessibility to areas of London currently poorly served by public transport, congestion relief at central London termini and radial routes into central London and increased integration with the National Rail network. Phase 2 also forms the missing link in the aspirational London Overground orbital rail service. It will also create a link from south of Surrey Quays station to the National Rail network near Old Kent Road to be known as the South London line link.

Outputs

Construction of a new railway between the junction on the East London line and the existing Network Rail South London lines. Construction of a pedestrian underpass at Hornshay Street and connection with the South London line network north of Queen's Road Peckham. Reinstatement of platform 1 at Clapham Junction to accommodate the existing London Overground services that will be displaced by the Phase 2 service running into platform 2. Accessibility works to Clapham Junction station.

Improving transport capacity

User time savings comprising reduced journey times, improved frequency and a reduction in the need to interchange.

Improving journey experience

Reductions in crowding through enhanced capacity.

Improving air quality

Reduced road congestion - the modal shift from car use will have an impact on reducing noxious emissions and noise.

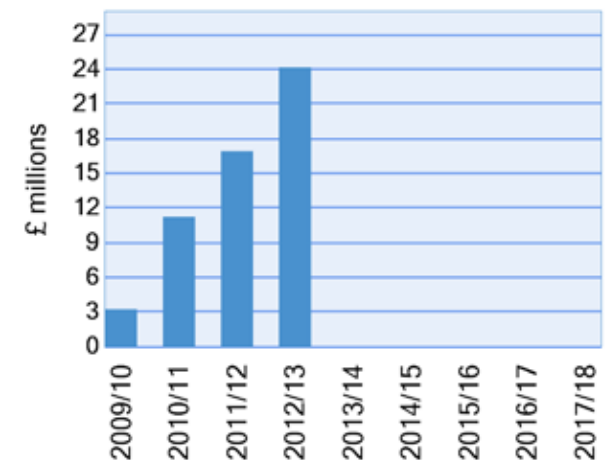
Improving transport connectivity

Improved connectivity between South London boroughs and the City of London, improving access to employment.

Milestones

May	2009	Technical adviser phase 2 award contract
Oct	2009	Commence GRIP 5 design
May	2012	Commence passenger services

Spending to 2017/18



Mode:	London Rail
Project location:	Richmond/Clapham - Stratford/Barking, Euston - Watford
Estimated cost £m:	252
Next TfL gateway	E - Project close

Purpose

The North London Railway comprises: the North London lines, Watford DC line (Euston to Watford local services), the West London line and the Gospel Oak to Barking line. Improvements are underway to increase capacity through enhancements to track, signalling and civil infrastructure. The East London line will extend services to Highbury & Islington by re-opening the Dalston western curve, integrating with North London Railway services. This major infrastructure upgrade will substantially increase capacity ahead of the 2012 Games.

Outputs

Capacity increase on the railway to meet 2012 Games requirements. Reduced congestion on NLR and radial routes into London.

Improving transport capacity

Demand growth to 2021 catered for adequately. More frequent and higher capacity services. Reduced passenger platform wait times and in-train overcrowding on North London Railway route network. Reduced congestion on radial National Rail and London Underground routes.

Improving transport connectivity

Provision of 'turn up and go' train service frequencies (four per hour) between Clapham Junction and Barking. Train service frequencies standardised, more direct services.

Improving accessibility

Increased journey opportunities to and from wards with a high index of deprivation. New trains will ease use for mobility-impaired passengers.

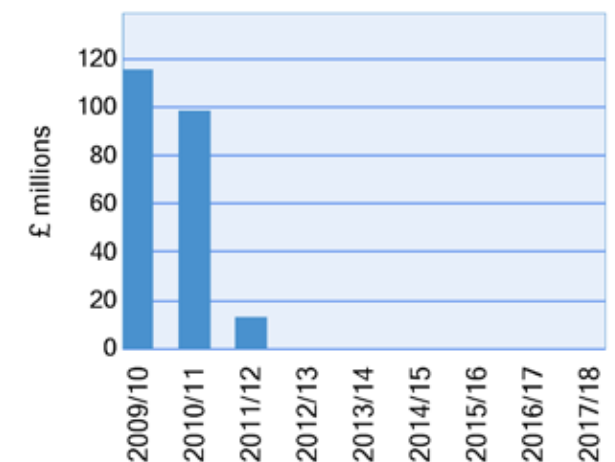
Reducing CO2 emissions

New, longer trains and increased service frequencies should encourage modal shift from private car to public transport resulting in reduced congestion on the adjacent road network.

Milestones

Oct	2007	Confirm project scope (single option)
Sep	2008	Completion of GRIP 4 preliminary design
Jan	2011	Project completion

Spending to 2017/18



Mode:	London Rail
Project location:	East London Line/North London Line
Estimated cost £m:	58
Next TfL gateway	E - Project close

Purpose

London Overground trains are being manufactured by Bombardier Transportation. A total of 216 new vehicles in three-car and four-car formations have been ordered. North London Railway vehicles are dual voltage. East London Railway vehicles to be DC, with provision for future conversion to dual voltage use. The new trains have wider gangways, onboard CCTV, air conditioning, wider seats, more handrails, dedicated wheelchair bays, audio and visual announcements and regenerative braking. The first trains entered service in July 2009.

Outputs

Improved passenger facilities (wheelchair bays, air conditioning and passenger information system). Near life-expired stock will be replaced on the North London Railway, resulting in improved reliability. Service will be enhanced due to capacity improvements and a reduction in overcrowding. The new stock also supports new services on the East London Railway.

Improving accessibility

Significant transport enhancements for two of the most deprived boroughs in the UK. The contract for new trains encourages supplier diversity. New trains will provide an enhanced passenger environment for disabled people and older people.

Improving journey experience

Reduced overcrowding. Improved facilities (wheelchair bays, air conditioning and a passenger information system). Improved security with walk-through carriages and on-board CCTV. Safety and ambience improvements.

Reducing CO2 emissions

New stock features regenerative braking, which reduces power consumption. Shift from car usage will reduce CO2 emissions and noise.

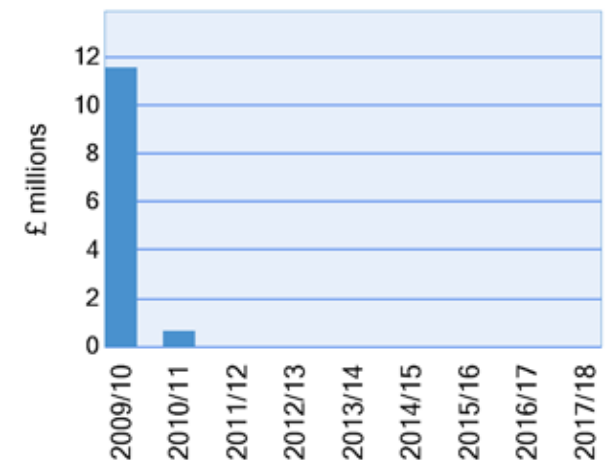
Improving transport capacity

Increased capacity and improved reliability.

Milestones

Aug	2006	Award contract
Jul	2009	First train in service North London railway
Jun	2010	First train in service East London railway

Spending to 2017/18



Mode:	London Rail
Project location:	North and East London
Estimated cost £m:	40
Next TfL gateway	E - Project close

Purpose

Stations transferring to the London Rail Concession (LRC) are to be upgraded to the standards required by London Rail. This will achieve similar standards to those required by the East London line for facilities, assets and quality of presentation as well as the fabric of the stations and their ambience. The project provides levels of comfort, security and experience in line with TfL's objectives.

Outputs

The LRC stations upgrade will provide the required facilities on the entire network of LRC stations for which London Rail will be the station facility owner (excluding the East London line extension). The upgrade will include the provision of additional lighting, CCTV, Help points, branding, signage, public address systems, realtime customer information systems and passenger waiting facilities and restoration of toilet facilities.

Improving journey experience

Significant enhancements to improve security at stations in some of the most deprived boroughs in the UK. Enhancements to the station design and fabric will improve facilities for staff and passengers.

Cost and efficiency savings

Reduced operational cost on stations.

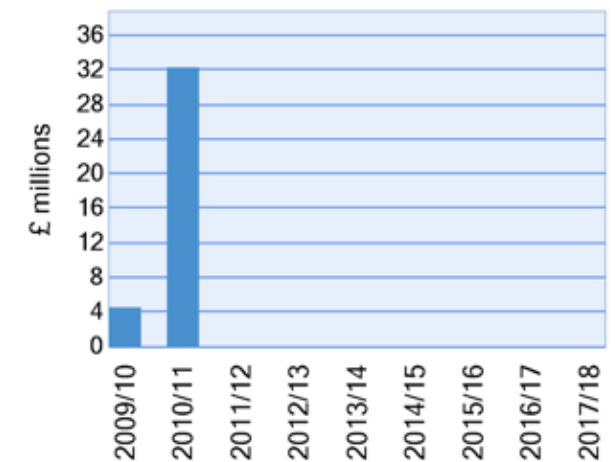
Reducing CO2 emissions

Modal shift from car use will have an impact on reducing carbon dioxide emissions and noise.

Milestones

Oct	2006	Completion of feasibility study
Nov	2007	Start of enhancement work
May	2008	Completion of initial station repairs
Jan	2011	Completion of enhancements to existing fabric on stations
Jan	2011	Completion of installation of station systems

Spending to 2017/18



Mode:	London Rail
Project location:	DLR network-wide
Estimated cost £m:	10
Next TfL gateway	Multiple

Purpose

This project includes a number of small and medium-sized projects designed to improve the reliability and availability of the B92 fleet of DLR vehicles and the DLR fleet of engineering vehicles.

Outputs

The reliability of the B92 fleet will increase from the current level of 9,000km between failures, to a target of 15,000km. Once complete, the B92 fleet will achieve a target of 84 out of 94 fleet vehicles available for the morning peak.

Improving transport capacity

Improved vehicle reliability and consistent achievement of the required availability will result in improved service performance.

Cost and efficiency savings

Improved service performance will lead to increased passenger revenue and a reduction in costs associated with poor service. Improved vehicle reliability should lead to more efficient use of resources and minimise waste.

Improving accessibility

Use of external suppliers will provide opportunities for local suppliers and diverse groups to be involved.

Milestones

Oct	2007	B92 Consistently over 10,000km between failures
Feb	2008	B92 Fleet achieves over 12,000km between failures
Jun	2012	B92 Fleet achieves 15,000km between failures
Mar	2013	Vehicle modernisation complete
Mar	2013	B92 Consistently achieves 15,000km between failures

Spending to 2017/18

