### Northern line extension

Factsheet J: Alternatives to the Northern line extension

#### I. Background

The proposed Northern line extension (NLE) is the only solution that can provide the required transport capacity and connectivity to achieve the Mayor's vision for the development of the Vauxhall, Nine Elms and Battersea (VNEB) Opportunity Area (OA). This will enable the delivery of around 16,000 new homes and 20,000 – 25,000 new jobs as set out in the VNEB Opportunity Area Planning Framework (OAPF).

A range of transport options to support the preferred development scenario in the VNEB OA were considered as part of the VNEB OA Transport Study which supported the OAPF. This is available on the Greater London Authority's website london.gov.uk.

Although the NLE is the principal new mode of transport proposed for the area, it is accompanied by many other transport and urban realm improvements that together form a comprehensive package for the area. These include enhanced bus services, improvement to National Rail stations, a pedestrian and cycle bridge across the river, passenger piers at Vauxhall and Battersea Power Station, pedestrian and cycle walkways, and new Barclays Cycle hire docking stations.

## 2. Alternative transport options suggested

During the autumn 2012 consultation other suggestions were made for improving transport in the OA. These included a number of alternative route options for extending the Northern line, as follows:

### Extension of the Northern line (Charing Cross branch) with an interchange at Vauxhall

This route option was consulted on in 2010 and 2011 and was the second-most popular choice. However it would not provide the additional benefits enabled by the proposed Nine Elms station or improved transport access to new areas in the centre of the OA



and in the existing communities in Lambeth to the south and east of the OA.

Vauxhall station is already operating close to capacity. An interchange with the Northern line at Vauxhall would increase congestion and crowding and would significantly impact on the operation of the station. The Victoria line is one of the busiest lines on the network and creating a new interchange at Vauxhall would add further to the number of passengers using this line.

In addition to this, engineering work at Vauxhall to construct the new line would be technically complex and very disruptive given its location under the local road rail and Tube network.

A new station at Nine Elms, however, would help to relieve congestion at Vauxhall station.

#### Terminate the NLE at Battersea Park station

The NLE is being built primarily to meet the increased demand created by the development of the OA. A terminus at Battersea Park station on the edge of the OA compares less well with the proposed location at Battersea Park Road, which is closer to the centre of the OA and presents greater accessibility benefits by creating an additional station in the area. A new Tube station at Battersea would, however, be within easy walking distance of both Battersea Park and Queenstown Road stations and would provide a convenient interchange with existing and new bus routes.

#### Extension of the Northern line (Charing Cross branch) beyond Battersea to Clapham Junction

The current proposal is to extend the Northern line as far as Battersea only, but designed in such a way that would allow for a possible further extension in the future. There is currently no proposal to extend beyond Battersea and any proposal to do so would be subject to a separate assessment.

#### Extension of the Northern line (Charing Cross branch) to Streatham/Crystal Palace

An extension to either Streatham or Crystal Palace would need to be in place of an extension to Battersea. Neither Streatham or Crystal Palace are OAs and the extension would therefore not facilitate the same level of growth in jobs and homes as the proposal to extend to Battersea and there would be significantly less scope for third party funding contributions. The construction costs of both options would be significantly higher as it would be over twice the length of the proposed extension to Battersea. Crystal

Palace already benefits from good transport connections following the extension of the London Overground network in 2010.

The main alternative transport options suggested that do not relate to an extension of the Northern line include:

## Creating an extension of the Victoria line from Vauxhall

Creating an extension of the Victoria line to serve the OA would result in a significantly reduced service on the existing Victoria line south of Vauxhall. This is because it would effectively split the line and reduce the number of trains serving the existing terminus at Brixton.

This is a heavily used section of the Tube network and fewer trains servicing this section of the Victoria line would increase congestion. Construction would also be complicated and costly due to the existing infrastructure at Vauxhall.

# Extension of the Waterloo & City line to Battersea

This was considered at a high level as part of the VNEB OA Transport Study. However it was ruled out on both capacity and engineering grounds. The line is already at capacity at peak times meaning there would be no spare capacity for new passengers and costly extensions would be required on the line's two existing platforms at Waterloo. Finally, as Waterloo is located further from the OA than Kennington this extension would lead to higher construction costs and increased journey times.

# Use National Rail infrastructure into either Waterloo or Victoria

A number of National Rail (NR) proposals were discussed with Network Rail as part of the VNEB OA Transport Study. However there is insufficient capacity on the routes running through the OA and at Waterloo or Victoria NR stations themselves to enable the introduction of new services. No NR based option could provide the connectivity or accessibility benefits of the NLE which will provide a direct service from the centre of the OA into central London and the rest of the Tube network through two new stations.

### A tram

A tram, running from Waterloo to Battersea with intermediate stops was considered as part of the VNEB OA Transport Study and was discounted as an option for several reasons. It would run alongside general traffic on some stretches of its route, reducing highway capacity in the OA and so increasing congestion and inconvenience to other road users. Depot facilities would be required somewhere along its route, adding cost and land requirements which make it a less attractive option than the NLE. Furthermore, a tram would generate additional passenger demand at Vauxhall if this were an intermediate stop, thereby increasing congestion at this busy interchange.

#### 3. Further information

If you would like more information about the Northern line extension please email nle@tfl.gov.uk

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