

Appendix I

RESPONSE TO THE OLYMPICS PLANNING APPLICATIONS

Making the best possible use of the waterways

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RESPONSE TO THE OLYMPICS PLANNING APPLICATIONS

Making the best possible use of the waterways

Summary

We have reviewed the Olympics planning applications in respect of the future use of the waterways as an active part of the proposals for the Olympics and the development of a Water City in the Legacy period.

The proposals to transform the waterways are welcome. However insufficient attention has been given to practical options for providing access to the waterways as part of the aspirations to use them for freight, passengers and recreation.

SECTION A

OVERVIEW

1. Aspects that are welcome

1. The recognition of the importance of the waterways and watercourses in the future life of the area (referenced throughout the Planning Application Documents)
2. The commitment to significant investment to transform the character of the waterways (referenced throughout the Planning Application Documents)
3. The aspiration to use the waterways for the transport of construction materials and waste (Volume 12B Environmental Statement Part 2 – Descriptions of Proposals 3.1.133, 3.3.137 – 3.3.139)
4. The recognition of potential for passenger traffic for the Games (Volume 13A: ES Annexure 1: Transport Assessment 6.18 Water Transport)
5. The recognition of the opportunity presented by the construction of Prescott Lock (Volume 12B Environmental Statement Part 2 – Descriptions of Proposals 7.4.11 -7.4.16)
6. The option to import fuel for the Energy Plant via the canal (Volume 12B Environmental Statement Part 2 – Descriptions of Proposals 3.3.106)
7. Recognition of the potential in the Legacy phase for a waste transfer and treatment station within the IPC/MBC building with access to wharfage (Volume 12B Environmental Statement Part 2 – Descriptions of Proposals 3.8.21)

2. Problems that need to be addressed

1. The reduced access resulting from the plans to naturalise the banks of the waterways. (Volume 6 – Site Preparation Planning Application Forms, Schedules and Certificate) There is a danger that whilst the appearance and ecological habitat of the waterways will be transformed for the better, this will be at the expense of materials and people being able to get onto the waterways. This could lead to a failure of the waterspaces through inactivity and lack of use
2. The absence of any firm proposals to arrange site organisation to facilitate use of the waterways to import construction materials. The danger is that the way the sites are organised within the Park it will not facilitate water transport
3. The failure to link the removal of demolition and construction waste to suitable waterside locations to facilitate barge transport for onward disposal
4. The absence of proposals to establish infrastructure – piers, wharves or landing stages - that would allow for water transport

5. The absence of proposals to move people and goods on the waterways **within** the Park
6. The lack of plans to establish essential waterway infrastructure for use in the Legacy period
7. Wood fuel destined for the proposed Biomass Plant at Kings Yard will require suitable access points on the waterway network so that the material can be loaded onto barges.
8. Methods for transporting waste to the potential waste transfer station in Legacy at the former IPC/MBC are not identified
9. The use of 'back of house' areas for handling waste in operation during the Games and Legacy (Volume 12B Environmental Statement Part 2 – Descriptions of Proposals 3.8.20) could exclude the option of using water transport

3. Possible solutions

1. A number of wharves could be designed into the plans to provide connections to the construction sites for water freight to enable delivery of aggregates from the Thames and infrastructure materials from the Lee Navigation
2. A wharf located near the railhead at Bow Midland (St Clement's Wharf) could be used to facilitate the onward transfer by barge of materials arriving by rail to construction sites within the Park
3. On site construction facilities such as concrete batching plants and reception areas should be located so as to receive raw materials and construction materials straight from the waterways and to be able to send out construction waste
4. Piers located at strategic points would provide access to the venues for transporting passengers on the waterways within the Park
5. Waste generated on site during the Games could be removed via the wharves and piers on barges rather than lorries. Access to waterways should be one of the factors involved in choosing the locations for the waste management areas
6. Wharves and piers built for the Olympics can continue into the legacy period and be used in connection with future industrial and residential development
7. Locations for a marina and moorings should be considered so that the waterways can be enjoyed in the legacy period for leisure and recreation
8. Sources supplying wood fuel for the Biomass Plant should, if possible, be adjacent to the waterway network and access onto the waterways should be identified or created to allow road sourced fuel to transfer to barge
9. The streams of demolition and construction waste that will have to exit the Park should be identified with a view to transporting them by water – i.e. metal waste could be taken by barge to EMR at Bow Creek. As far as possible designated waste skip collection points should be located waterside to provide the option for removal by barge.

SECTION B

DETAILED RESPONSE

In order to comment in detail on the aspects of the planning applications that relate to use of the waterways this response is presented according to the following topics:

1. Context
2. Enabling and construction works
3. Legacy
4. Naturalisation and bridges
5. Waste, recyclates and energy plant
6. Passenger transport
7. Leisure and recreation.

1. Context

1.1 Policy framework

The LLV Regeneration Strategy (LLV RS) provides a context and basis for the Olympics proposals. This is augmented by the ODA Sustainable Development Strategy (LLV SDS). The LLV RS is made up of two core documents – the Lower Lea Valley Vision (LLVV) and the Lower Lea Valley OAPF (LLV OAPF).

Together these three documents envisage use of the waterways for freight – particularly associated with construction and waste including green and environmental industries – and for passenger transport, leisure and recreation. Key extracts are set out in Appendix 1.

1.2 Advantages of using water transport

London Plan Policy 4C.14 is designed to promote sustainable transport and help reduce congestion and the impact of goods vehicles on London's roads: "The Mayor will and boroughs should support new development and facilities that increase the use of the Blue Ribbon Network to transport freight and general goods especially in areas of deficiency."

Policy 4C.28 in the Draft Further Alterations to the London Plan states: "Wherever possible, new developments adjacent to canals should maximise the use of water for the transport of construction materials and for the removal of waste from site."

Tower Hamlets UDP Policy ST33 is: "To reduce the impact of heavy lorry traffic by promoting greater use of rail and water for the movement of freight."

Using waterways for freight transport can make a significant contribution to reducing negative impact on the environment through:

- Lower fuel consumption
- Reduction by around 80% of carbon put into the atmosphere
- Reduction by around 35% of nitrogen oxide put into the atmosphere

(Source: The Case for Water: Why transporting freight by water is good for the environment and good for the economy, Sea and Water 2006)

LB Tower Hamlets is anxious to ensure that the greatest possible use is made of the waterways for the movement of materials to and from the sites and that full advantage is taken of the new Prescott Lock. As the Transport Assessment points out at 5.4.3, using alternative and more sustainable transport modes “will increase the reliability and delivery whilst minimising the impact on surrounding communities” through a reduction in road transport.

LB Tower Hamlets is also keen to ensure that the Olympics development includes the installation of waterway related infrastructure – providing access onto the water itself - that will be an essential part of delivering a Water City in the Legacy period.

2. Enabling and construction works – Olympics and Legacy

2.1 Waterway access

Through the Transport Assessment (Volume 13A) and LLV SDS the ODA aspires for at least 50 per cent of materials, by weight, to be transported to and from the Olympics Park by water or rail during construction. This would be facilitated by the construction of a lock at the entrance to the Prescott Channel. This lock would enable 350 tonne barges to access the site via the Waterworks River to service construction sites to the east and west of the Waterworks River.

Additional construction sites can be accessed using 120 tonne barges via the Lee Navigation and Bow Backs (including Old River Lea, City Mill River and Bow Back River), although the planning application documents refer to a capacity of 100 tons. River Lea barges were designed in two sizes of 120 tons and 140 tons. Appendix 2 to this report lists the various venues in the Olympic Park showing which waterways provide access.

The Transport Assessment at paragraph 4.9.2 states: “The final section of the Lea itself (Bow Creek) is tidal and is only suitable for navigation at certain times of the year.” This statement is misleading. Bow Creek is indeed tidal which means it is only navigable for approximately four hours, twice a day, a total of around eight hours in every 24. It is not correct to say that it is only suitable for navigation at certain times of the year, as it is navigable all year round.

2.2 Site access from waterways

Appendix 2 identifies the sites within the Park that are currently accessible from the non tidal and tidal waterways. However, the ease and facility with which the waterways can be accessed will be significantly compromised by the naturalisation plans unless wharfage is installed at locations where this treatment will be undertaken. It will be important to relate water freight access to places where future employment and industry will be located and to road access to allow intermodal transfer particularly for waste and recyclates. Similarly, piers and moorings should be located near to where residential development will take place so residents can access the waterways for transport and recreation.

The existing Lee Navigation and the Bow Backs can be used with immediate effect for infrastructure deliveries from the north e.g. Burdens and for waste removal to and aggregates deliveries from the Thames via Bow Creek. The reinstatement of City Mill Lock would give limited access to the Waterworks River from the Bow Backs in advance of the completion of Prescott Lock. Hence, it is not strictly accurate to say

(Volume 12B Environmental Statement Part 2 – Descriptions of Proposals 3.3.139) that “there will be no opportunity to use river transport for the first two years”.

2.3 Construction and demolition waste

Construction and demolition waste leaving the Park will be limited due to the strategy to minimise waste and to reuse as much as possible on site. However, material that does have to be removed from the area can travel by water to a number of possible destinations including:

Bywaters, Twelvetrees Crescent at Bow Creek
Hanson, North Greenwich at Victoria Deep Wharf
McGraths at Barking Creek
Powerday, Willesden on the Paddington Arm (Grand Union)
Ethos, Trout Road on the Slough Arm (Grand Union)
Contaminated waste could be taken to Hanson/Keltbray Walsh (Victoria Deep Wharf) or Powerday (Old Oak Wharf, Willesden) for treatment.
EMR at Thames Wharf, Bow Creek could receive scrap metal

2.4 Construction materials

Materials can be brought directly into the area by water and if necessary moved around the site by barge. Materials, particularly hardstone, could also be brought in by rail to the railheads at Bow and could be transferred onto barges for onward delivery to sites. At Bow East (also referred to as Bow Midland) the rail line passes parallel and close to the Lee Navigation at St Clement’s Wharf. This would give direct access to the Bow Back Loop (sites 1-9 in Appendix 2) where material can be delivered to a number of locations without having to pass through any locks.

Materials coming into the site will include aggregates for ground works and concrete. These can in the main be supplied via the Thames although there is also the possibility of supplying materials from Burden on the Lee Navigation to the north of the Park.

Sources for aggregates from the Thames via Bow Creek include:

- Hanson – Victoria Deep and Dagenham Dock
- Cemex – Angerstein Wharf
- United Marine Aggregates – Murphy’s Wharf at Charlton

Sources for cement from the Thames via Bow Creek include:

- Lafarge – Bevans Wharf at Northfleet
- Castle Cement – Thurrock Marine Terminal at West Thurrock

Sources for steel from the Thames via Bow Creek include:

- Kierbeck – Keirbeck Wharf, River Road Barking Creek
- Arcelor Group – Welbeck Wharf, River Road Barking Creek

Groundwork’s and infrastructure materials (paving and drainage)

- Burdens – Picketts Lock on Lee Navigation (Burdens are proposing they could use their site as a consolidation centre for other companies who may wish to supply materials for the Olympics).

The most efficient means to maximise use of the waterways would be through the location of concrete batching plants waterside. Raw materials could be delivered by barge and mixed on site. A number of delivery points should be identified where material could be offloaded at the main centres of construction for use in the immediate vicinity or for onward transfer.

3. Legacy

3.1 Waterside infrastructure

Paragraph 8.16.1 of the Transport Assessment states: “The Legacy of the Olympic Games will include the regeneration of waterside infrastructure within the immediate Olympic/Legacy Park area. . . The Legacy proposals will enhance water travel and cycle/walking networks.”

Aside from the new lock at Prescott Channel, it is unclear what the regeneration of waterside infrastructure would entail, as no specific proposals are laid out. Were this to include the provision of wharves to handle materials for the construction phase this would provide a basis for using the waterways in the future for commercial freight and for passenger use. Hence the use of the waterways beyond the Olympics depends on putting infrastructure in place for the Olympics and incorporating it into the design of the Park and/or making provision for this in the Legacy phase.

4. Naturalisation and bridges

4.1 The impact of naturalisation works on navigation

The LLV OAPF promotes naturalisation of the banks so long as this does not compromise navigation and transport potential including the ability to transport construction and waste material to and from the site (see Appendix 1).

In principle, so as to retain navigational use of the waterways naturalisation should be undertaken so as not to compromise future use of the waterways by vessels, be they freight barges, passenger or recreational vessels. Breaking out of the banks and the installation of vegetation should not reduce the width of the navigation or prejudice safe navigation on bends or at bridge holes or compromise the ability to land at wharves and moorings. Naturalisation of the banks should not result in a requirement for vessels to slow down in order to navigate safely past them and without causing erosion to the bank.

However, the detailed plans for naturalisation appear to compromise future use of the waterways by vessels as they remove the ability for vessels to land so as to load or offload goods and people. The installation of wharves and piers would mean that naturalisation could be undertaken whilst also providing vessels with access to the land. The detail with respect to each Planning Delivery Zone is set out below. It is not clear from the plans whether naturalisation will compromise the ability of vessels to navigate safely past the naturalised areas with having to slow down and without causing erosion.

PDZ 1 Naturalisation of east bank of Waterworks River and River Lea for 800m. Without a pier or other structure these works preclude access by barges to this stretch of bank as the shelf will obstruct vessels approaching the side. Effectively the river will be distanced from the bank by more than 8m, requiring a reach of around 12m for a machine to load/unload. The line of sight for the machine operator will be very poor as he will be so far back from the barge he will be unable to see into the hold. Potentially this could impact on use of the waterway to transport materials in connection with the construction of the Aquatics Centre; Sponsor's Village, the Loop Road and associated parking areas. This issue could be redressed by the provision of one or two landing stages along this stretch that could be retained during and beyond the Olympics.

PDZ 2 Naturalisation of west bank of City Mill River. The removal of the existing wall and installation of a sloped bank will preclude vessels approaching the side. This could impact on use of the waterway to transport materials in connection with the construction of the Olympic Stadium and adjacent roads and servicing area. This could be redressed by installation of a landing stage or wharf in the vicinity.

PDZ 3 The plans do not appear to compromise water transport. This waterway can be used for the construction of the Olympic stadium, the Loop Road and the Warm up and Athletics tracks and the various bridges.

PDZ 4 The plans do not appear to compromise water transport. Installation of a wharf on the western bank (right bank) of the Old River Lea would provide water transport access to PDZ 4.

PDZ 5 & 6 Naturalisation of both banks of the River Lea for 700 to 890m and creation of wetlands. This will compromise water transport's ability to carry materials in connection with the construction of the Velodrome, BMX track, Fencing Hall, Hockey and Handball Arenas as well as the Olympic Park Roads. This could be redressed by the installation of wharves or landing stages – at least one each bank.

PDZ 7 & 15 Naturalisation of east bank of River Lea. This will compromise access for water transport to deliver materials for the construction of the Northern Spectator Transport Mall and Athletes Training Area.

PDZ 8 The plans do not appear to compromise water transport. Material delivered to this area could be moved onwards by way of the internal road system.

PDZ 9 Naturalisation of east bank of River Lea. This would compromise access to the Olympic Village. A wharf at this point, more or less opposite Carpenters Road Lock would be useful for the Olympics and legacy period.

Volume 2A Design and Access Statement 7.4.7 suggests “the vertical river walls of the left bank of the River Lea and the right bank of City Mills can be replaced by a naturalised soft river bank.” Without provision of landing stages or wharves this will preclude land access from these sections of waterway for water transport in the legacy phase.

4.2 Bridge profiles and locations – impact on navigation

In principle, bridge profiles should be designed to allow for the passage of vessels laden with containers and bridge locations should not present visual or physical obstructions to navigation. Volume 2A Design and Access Statement 7.11.2 states bridge clearances allow for the required navigational clearance.

It has not been possible to examine the precise bridge designs. The majority of freight transport is by way of containers which are an efficient and economic means of transport materials. To ensure the Legacy is designed to cater for modern transport requirements, clearances and profiles of bridges that will be retained need to be designed to allow the passage of vessels carrying empty containers. Slopes on the bridges could narrow navigation under the bridge. Furthermore, any bridge foundations sunk into the channel will need to be fendered. Bridge abutments need to allow for the passage of barges up to 7.5m beam on the Waterworks River and 6.1m beam on the Lea Navigation.

5. Waste and recyclates and energy plant

5.1 Waste and recyclates

The Legacy proposals as indicated in the LLV OAPF envisage five core industrial areas stretching up the Lea Valley from Bow Creek to Lea Bridge. These will be preferred locations for green and environmental industries including waste and recycling. There are also a number of areas identified for intensive residential development. These developments will generate waste and recyclates which could be transported to destinations both within and outside the Valley using water transport.

Ideally, any waterside infrastructure that is installed for the Olympics should be capable of being used later for water transport of freight. The increase in recycling is adding pressure to the road network through the greater number of journeys involved in moving material around. Use of the waterways for commercial freight both inside and outside of Tower Hamlets will benefit the Borough by reducing road transport in the area and the associated impacts of congestion, accidents and pollution.

5.2 Energy plant

Material destined for the proposed Biomass Plant at Kings Yard will require suitable access points on the waterway network so that the material can be loaded onto barges.

6. Passenger transport

Much of the new housing proposed in the LLV OAPF will be located on the waterways, a considerable amount of which will be in Tower Hamlets. Potential connections with rail and Underground include Pudding Mill Lane, Hackney Wick and Bromley by Bow. Water based passenger traffic needs to be facilitated through the installation of landing stages at strategic points.

7. Leisure and recreation

Proposals for using the waterways should seek to reactivate the waterways themselves as well as improving facilities for walking and cycling. The LLV OAPF envisages waterside sites being developed for active uses including boat servicing, river maintenance and canal boat facilities, and provision for rowing boats, canoes, and barge moorings for visitors and residential moorings.

It is unclear at this stage where these facilities would be located and how they would relate to future residential development and the creation of additional parkland. Nor is it clear how the network of canals and rivers would be made more welcoming to boat users. There is a danger that naturalisation proposals could compromise the achievement of these objectives.

APPENDIX 1 - EXTRACTS FROM POLICY DOCUMENTS

Extract from the Commitment to Sustainable Regeneration

“The 2004 Olympic and Legacy Planning Permission (O&LPP) required the submission and approval of a Lower Lea Valley Regeneration Strategy to demonstrate how the implementation of the Games could act as a catalyst for the regeneration of the wider Lower Lea Valley before development for the Games could commence, including any site remediation and enabling works. This Regeneration Strategy was commissioned by the LDA to cover the whole of the Lower Lea Valley around and beyond the Olympic Park, running from the A12 Eastway Crossing at Hackney marshes to the River Thames at Lea Mouth. The Strategy was published and endorsed by stakeholders in January 2007 and comprises two core documents: The Lower Lea Valley Opportunity Area Planning Framework and the Lower Lea Valley Vision.

The Regeneration Strategy has established the context for the delivery of the 2012 Olympic and Paralympic Games as a regeneration catalyst, as well as the potential quantum, shape and form of future development across the Lower Lea Valley.” (Olympic and Paralympic & Legacy Transformation Planning Applications, Volume 3 Commitment to Sustainable Regeneration P.11)

Extracts from the LLV OAPF

“A2 Opportunities to upgrade the waterways that do not compromise the flood defence role, transport potential, landscape character and ecological value of the river corridor and associated floodplain of the LLV should be supported.

2.28 Subject to London Plan policy 4C.15 which protects Safeguarded Wharves for cargo-handling uses, development proposals on waterside sites should seek to incorporate, where appropriate, active uses including boat servicing, river maintenance and canal boat facilities, and provision for rowing boats, canoes, and barge moorings for visitors and residential moorings. Development proposals will also need to be in accordance with London Plan Policies 4C.18 and 4C.19 on Support Facilities and Activities in the Blue Ribbon Network and Mooring facilities.

2.92 The approach to land use set out in the OAPF is to retain and intensify industrial and employment development in locations that are in close proximity to road, rail and water freight systems to take advantage of good connectivity (and minimise industrial congestion in other areas).

2.117 Land and premises at, or appropriately relocated to, river and rail locations (including Safeguarded Wharves) should be safeguarded to secure industries and facilities that are centred on recycling, the processing of locally produced waste and energy production.

E6 Development proposals in the LLV should seek to maximise the use of rail and water transport for freight and other related purposes.

2.141 Development proposals should actively investigate ways of using the rail and waterway network in the LLV to transport construction and waste materials from/to the Olympic site and other development sites and as part of the long term sustainable transport network in the LLV. Any proposals for de-canalisation, naturalisation and improved public access to waterside land should not preclude this possibility.

2.168 Sites for waste management and disposal should be identified with regard to proximity to source of waste, the nature of activity proposed and its scale, the environmental impact on surrounding areas, particularly how material is transported to and from the site, the use of rail and water transport, and using sites that are located in Preferred Industrial Locations or existing waste management locations.

4.192 Waterways: Development in the sub-area should include, or contribute towards local interventions to provide:

- Substantial naturalisation of the eastern bank of the River Lea in this area to create a wildlife corridor, either through breaking out the existing canal walls and re-grading the banks, or through constructing terraces within the watercourse where this has no negative impact on navigation.”

Extracts from the Lower Lea Valley Vision

“Delivering a Water City

The approach to the waterways includes the implementation of projects specifically related to encouraging more active use both for commercial and leisure uses and to improve ecological value.

This is proposed to incorporate:

- Enhanced use of the waterways and wharves for freight and industrial use;
- Enhanced use of the waterways for leisure and recreation;
- New canal basins, boat moorings and water courses to enhance the waterside character of the Lower Lea Valley;
- Integration of natural drainage and flood alleviation features; and
- Improved water quality.” (Page 9)

Extracts from ODA Sustainable Development Strategy

“The waterways present an opportunity for leisure and commercial transport, environmental enhancement and public access and amenity. The ODA has been working with British Waterways, the Environment Agency, English Nature and the London Thames Gateway Development Corporation to develop a proposal for the reinstatement of a water control structure in the Prescott Channel. This proposal, which would be delivered by British Waterways, would allow for the delivery of some of the construction materials to the Olympic Park site as well as the removal of some of the waste materials by water”. (Page 29)

“The ODA is also working closely with British Waterways, Transport for London, the Department of Transport and the Port of London Authority to create opportunities to transport materials by water. This would be facilitated by the water level control of the waterways through a proposed lock installed in the Prescott Channel”. (Page 38)

“The ODA aspires for at least 50 per cent of materials, by weight, to be transported to and from the Olympic Park by water or rail during construction.” (Page 39)

APPENDIX 2 – WATERWAYS ACCESS TO OLYMPIC SITES

Table 1: Olympics sites accessible from the Bow Backs and the Lee Navigation

Site No.	Olympic Sector	Description	Non tidal Waterway	Current road access
1	Car park	Bounded to the west by Lee Navigation, to south and East by the Bow Backs with railway to the north	Bow Back River	Cooks Road to the west and Pudding Mill Lane to the East
2	Transport interchange and security check area	Bounded by City Mill River to East and South, Marshgate Lane to West and the railway line and Northern Outfall Sewer to the north	City Mill River	Marshgate Lane, Pudding Mill Lane
3	Eastern Security check area	Bounded to west by City Mill River, to east by Waterworks River (tidal), bounded to north by railway and to south by northern outfall sewer	City Mill River to west	Bridgewater Road
4	Western Security Check Area	Bow West railheads. Bounded to east by Lee Navigation, to south by railway line, to the west by the Blackwall Tunnel Northern Approach	Lee Navigation	Wick Lane
5	Warm up and athletics track	At Bow East. River Lee Navigation to west, northern sewer outfall to north, railway to south.	Lee Navigation	Marshgate Lane
6	Food Hall southeast	Bounded to east by waterworks river, to south by railway line	City Mill River	Check if road access?
7	Food Hall west	Bounded to east by the Old River Lea, to the west by Lee Navigation	Lee Navigation on west Old River Lea on east	Bow Ind. Park Rd off White Post Lane
8	Main Stadium and service area	Bounded to the east by City Mill River, to south by northern sewer outfall and to west by Old River Lea	Old River Lea on West, City Mill River to east	Marshgate Lane
9	Basketball Arena and service area	Bounded to the north by railway line, to east by Waterworks River, to south by Old River Lea, to west by Lea Navigation	Old River Lea Lee Navigation	Carpenters Road
10	Handball Arena and service area	Bounded to east by Waterworks River (Bowling Alley), to south by railway line, to west by Lee Navigation and to north by A12	Lee Navigation	East Cross Centre off Waterden Road

Handball Arena and service area	Bounded to east by Waterworks River (Bowling Alley), to south by railway line, to west by Lee Navigation and to north by A12	Lee Navigation	East Cross Centre off Waterden Road
Media & Press Centre and International Broadcasting Centre	Bounded to east by Waterworks River (Bowling Alley), to south by railway line, to west by Lee Navigation and to north by A12	Lee Navigation	Waterden Road
Hockey, service area and northern food hall	Bounded to east by Waterworks River (Bowling Alley), to south by railway line, to west by Lee Navigation and to north by A12	Lee Navigation	Waterden Road

Table 2: Olympics sites accessible from the tidal River Lea

Site No.	Olympic Sector	Description	Tidal Waterway	Current road access
1	Aquatic Centre	Bounded to North by railway line, to the south by railway line, to west by Waterworks River	Waterworks River	Warton Road off Carpenters Road
2	Service area northwest of Aquatic Centre	Bounded to East by railway line, to west by Waterworks River	Waterworks River	Carpenters Road
3	Athletes Village, Fencing Hall, BMX track, Velodrome, service areas	Bounded to east by railway line, to south by railway line, to west by Waterworks River, to north by A12	Waterworks River	Temple Mill Lane either via Ruckholt Road to north or Leyton Road to east
4	Paralympics tennis, Athletes area and service areas	Bounded to east by railway line, to south by A12, to west by Waterworks River, to north by Ruckholt Road	Waterworks River	Ruckholt Road
5	Coach drop, disabled and cycle parking	Bounded to east by New Spitalfields Market, to south by Ruckholt Road, to west and north by Waterworks River	Waterworks River	Ruckholt Road