

OLYMPIC WATERWAY OPPORTUNITIES

15 November 2005

1.0 BACKGROUND

- 1.1 The Department for Environment, Food & Rural Affairs (Defra) has asked that British Waterways, the Environment Agency and English Nature work together on proposals to restore the Olympic Waterways as a showcase sustainable project for the London Olympics.

A considerable amount of information has been provided to the LDA and their consultants in order to support their review of the current transport proposals for the development of the Olympic Park. This includes the following commissioned work:

- **Environmental Benefit Assessment, Olympic Village & Legacy, Information Note**, Peter Brett Associates, November 2005
- **A Review of [Capita Symonds'] Olympic Park Rail & Waterway Optimisation Study**, Peter Brett Associates, September 2005
- **British Waterways' Prescott Channel Water Control Structure, Project Feasibility Study**, WS Atkins, July 2005
- **British Waterways' Bow Back Rivers Restoration Feasibility Study (Stage 1)**, Halcrow Group Ltd, August 2004

These proposals use criteria set out in four key documents:

- **Lower Lea Valley Opportunity Area Planning Framework: Sustainability Appraisal – Scoping Report** (Capita Symonds October 2005)
- **Towards a One Planet Olympics** (One Planet Living, updated)
- **Securing the Future – Delivering UK Sustainable Development Strategy** (Cm 6467, HMSO 2005)
- **The Green Book, Appraisal and Evaluation in Central Government** (HMT 2003)

- 1.2 There is now significant evidence to indicate that by restoring the waterways back¹ to full navigation the network would play a greater part in the development of a sustainable Games, the setting of the event itself and, perhaps most importantly, a long-term sustainable Legacy.

This option would help to reduce traffic congestion before and importantly, after the Games, improve air quality, maintain flood defences, create significant leisure activity, improve visual amenity and safety, provide the potential to improve connectivity to Stratford City and create the largest hydroelectricity-generating scheme in London.

¹ Prescott Channel and Waterworks River were originally navigable flood channels not natural watercourses

2.0 WATERWAY OPTIMISATION PROPOSAL

This proposal will contribute to Government and GLA pledges for a 'green' Games and importantly, the Legacy by **maximising** the transport, tourism and environmental potential of the waterways. The proposal is to construct a lock at Prescott Channel (returning the network to its previously navigable state), refurbish Bow Locks, create naturalised wetlands on the Old River Lea and enhance the tidal habitats on Bow Creek and Abbey Creek.

2.1 Benefits²

During Olympic Park development

- Opportunity for a showcase sustainable project
- 5 million tonnes materials moved by barge
- 500,000 lorry journeys saved
- 15,600 tonnes of CO₂ saved (the equivalent of taking 15,600 cars off the roads)
- £10,000,000 environmental benefit³
- Potential to generate 160, 000KWh hydro power through restored tidal mill p.a.

Olympic Legacy

- 125,000 tonnes moved by barge p.a
- 12,500 lorry journeys saved p.a.
- 440 tonnes of CO₂ saved p.a.
- £200,000 environmental benefit³ p.a.
- Potential to generate 160, 000 KWh hydro power through restored tidal mill p.a.

In addition to the Olympic Legacy benefits quoted above, there will be ongoing development and renewal over a 10 year cycle which, conservatively could generate up to 50,000 tonnes of material p.a. which could be moved by water.

Wider benefits

- Full navigation around Olympic Park
 - improved security through greater use of the network
 - improved safety (eliminates tidal inundation in Olympic Park)
 - reduced road traffic accidents and vehicular ambient noise
 - improved air quality
 - potential to secure leisure & mooring income (improves economic legacy)
- Improved river storage capacity in certain conditions
- Land values increased
- Opportunity to enhance freshwater habitats in Olympic Park
- Enhanced tidal habitats and tidal creeks (including 99.7% of mudflats and 100% of reed beds), which would be unaffected by proposals
- Develop cultural, heritage and education resource (Three Mills)
- Potential to connect 13.5m sq ft Stratford City with 2000 mile national waterway network
- Potential to contribute to the Cultural Olympiad

² Information from Environmental Benefit Assessment, Olympic Village & Legacy, Information Note PBA Nov 05

³ SRA sensitive lorry mile assessment

2.2 Disbenefits

- Prescott Lock would be ready in 15 months at the earliest
- Prescott Lock cost (£8.8m + contingency)
- Lock structure would require long-term management
- Loss of tidal influence and 'flushing' of the river system on Waterworks River

3.0 OTHER OPTIONS CONSIDERED

3.1 Current Olympic waterway proposal

Retaining tidal influence on Waterworks River, restoring Pudding Mill River (Legacy), significant breaking out of concrete banks and creation of naturalised wetlands on Old River Lea.

Benefits

- Improves current poor quality tidal habitat
- Improves visual amenity of the concrete channels where banks will be 'broken out'
- Retains the 'flushing' effect of the tidal system

Disbenefits

- Significant cost of breaking out extensive areas of concrete flood channel and culverting and restoring Pudding Mill River
- No CO2 reduction or air quality improvement
- No economic legacy potential for future management and maintenance of the rivers
- Limited opportunity to use the waterway channel for leisure, tourism and recreation
- No opportunity to restore tidal mill
- Retains poor 'visual amenity' of the area at low tide
- No potential to connect 13.5m sq ft Stratford City with 2000 mile national waterway network
- No potential to contribute to the Cultural Olympiad

3.2 Current Olympic waterway proposal plus refurbished Bow Locks

Benefits (see 3.1 above) +

- Navigation through refurbished Bow Locks allows for waterborne freight during Olympic construction period

Disbenefits (See 3.1 above) +

- Reduced water transport capacity and boat sizes means that the water transport option will not be sustainable.
- Water freight only possible on the western side of Olympic Park
- Fails to maximise water transport (and therefore sustainable benefits) on waterways for Games and subsequent 15-20 years Legacy and Stratford City development

4.0 CONCLUSION

4.1 Waterway optimisation

- A showcase project to deliver sustainable benefits during Olympic construction period, 2012 Games and ongoing Legacy
- Kick-starts a viable UK water transport revival
- Potential to enrich tidal and river ecosystems
- Creates largest hydroelectricity generating project in London
- Improves heritage and technology education resource at Three Mills
- Potential to connect 13.5m sq ft Stratford City with 2000 mile national waterway network
- Potential to contribute to the Cultural Olympiad

Key disbenefits

- Cost - Can be afforded through value engineering of current scheme and from those organisations benefiting from the proposal. Additional support may come from Freight Facilities Grant / Aggregates Levy Sustainability Grants Fund. British Waterways has considerable experience in putting together funding packages for waterway restorations and is willing to lead on this project
- The value of the extended river habitat will only be as rich as current impounded network unless water quality is improved (Defra, the EA and Thames Water are currently discussing this wider issue which will affect the hosting of the Games if not addressed)

4.2 Current Olympic waterway proposal

- Improves the poor quality tidal waterway

Key disbenefits

- Fails to maximise sustainable and showcasing benefits and is unlikely to realise a waterway and public realm management and maintenance legacy which is economically viable.
- No potential to connect 13.5m sq ft Stratford City with 2000 mile national waterway network

4.3 The current proposal with refurbishment to Bow Locks

- Improves the poor quality tidal waterway
- Offers an early opportunity to move materials by water

Key disbenefits

- Fails to develop a long-term sustainable water transport legacy.

- Fails to maximise sustainable and showcasing benefits and is unlikely to realise a waterway and public realm management and maintenance legacy which is economically viable
- No potential to connect 13.5m sq ft Stratford City with 2000 mile national waterway network