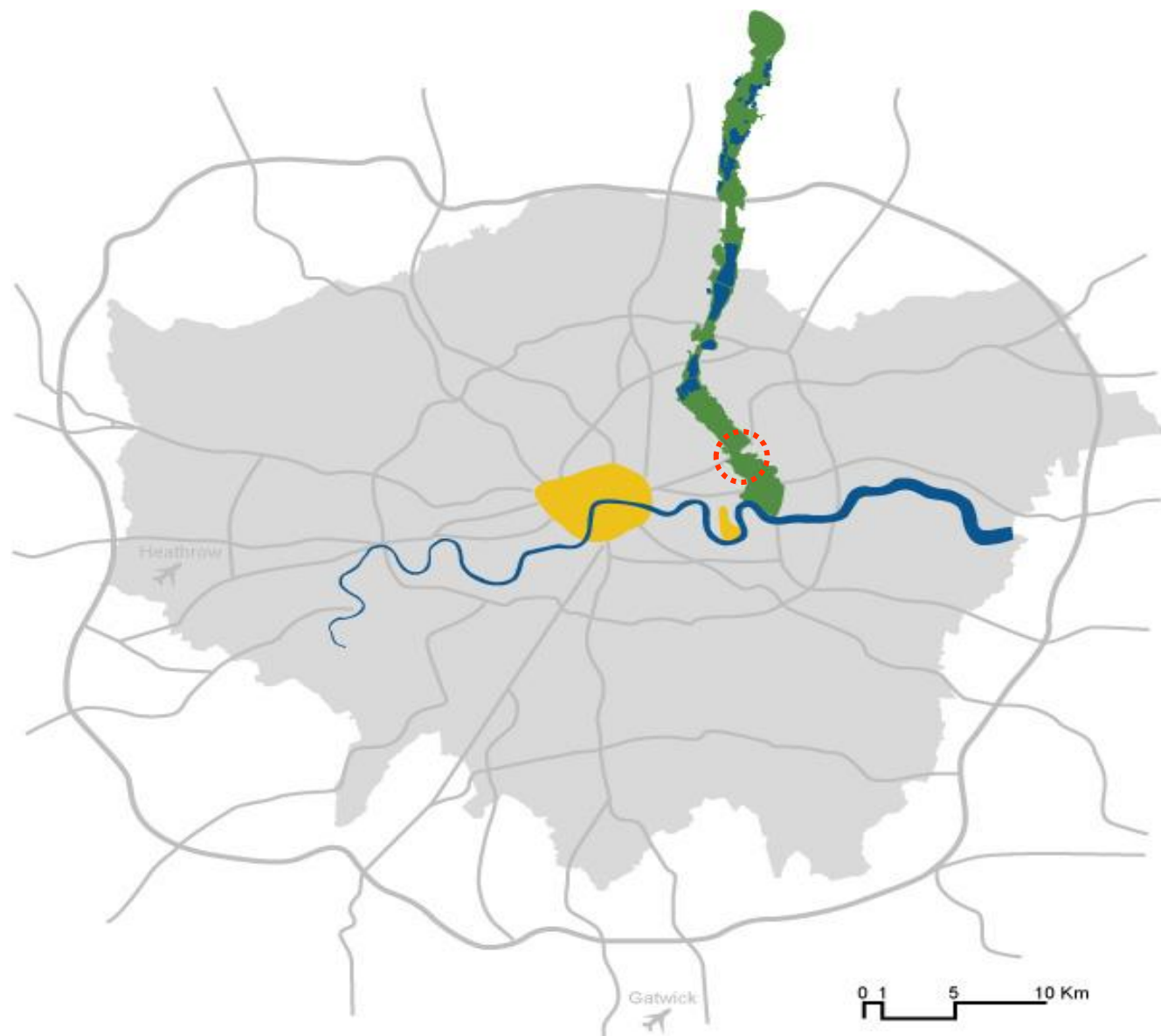


# Restoring London's rivers The Olympic Park – a case study

Mike Vaughan, Atkins Limited  
25 October 2012

NLA breakfast talk

**Plan Design Enable**







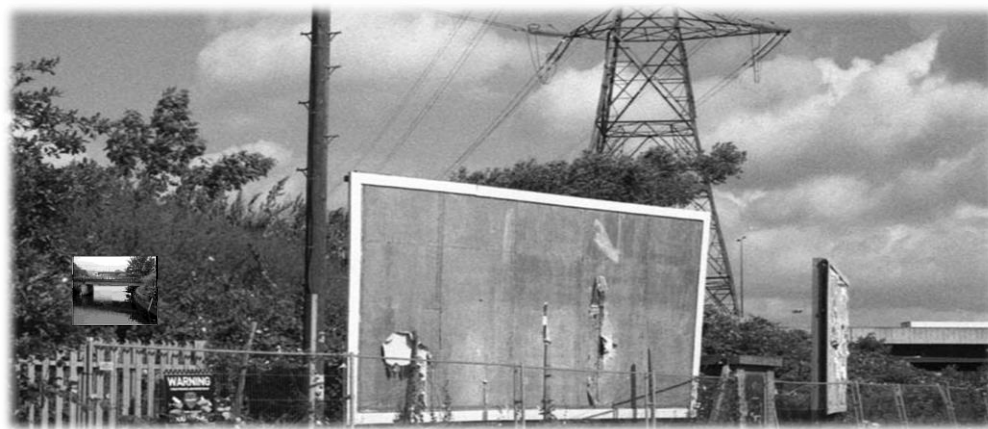
Timescale: 2005 to 2012 = 7 years

**Back in 2005 B.C  
(Before Clean-up)**





Industrial site in a state of urban decline,



# Contamination



Site clean up, remediation of soils and groundwater



# Little access to the watercourses



River walls repaired, restored or replaced



Invasive species





# Park and Public Realm (Ecological restoration)



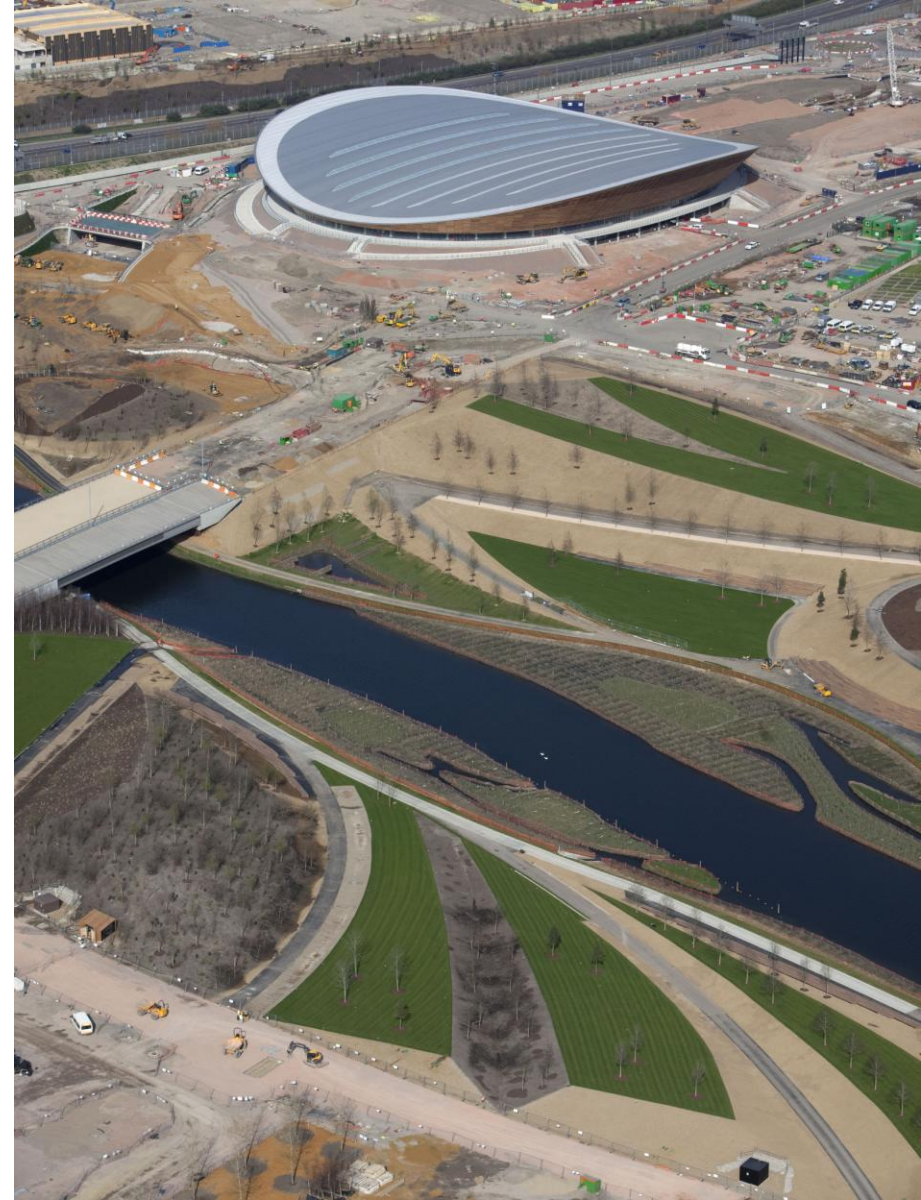


# River edges and wetlands:

## Integrating the river environment into the Park

# River Restoration ?

- Restoration options constrained
  - Obviously “complete” restoration philosophy can not be applied here
  - Constraints of the Olympic Park
  - Restoring biodiversity to river margins



# River Enhancement

- Restoring biodiversity to the river margins
- Enhancement of the river as a feature
  - For people:
    - Aesthetic
    - Engaging people with the river environment
  - For wildlife
    - Intrinsic habitat value
    - Habitat diversity with connectivity
    - Target species and habitat





# Challenges





Contamination



Silt



Weeds



Plant performance





Refer to Sheet 3

Refer to Sheet 4

NOTES

- 1) REFER TO PRR STANDARD DETAIL AND DET FOR BANK DETAILS.
- 2) REFER TO PRR DET FOR DET FOR DET.
- 3) REFER TO SPECIFIC INSTALLATION DET.
- 4) REFER TO SPECIFIC.
- 5) ALL PLANTING ARE TOP OF BANK, BOTTOM OF THE RIVERBANK.
- 6) AS STANDARD, ALL CONTIGUOUS WHERE FURNISHED AT THIS & LATER AGN.
- 7) REINFORCED TURF FURNISHED FOOTING FURNISHED FOOTING BE CLARIFIED AGN.
- 8) FOR PLANTING AND LINDENSHAW BY.
- 9) ALONG THE NORTH PLUS PLANT ARE INSTALLED AT A 10' SPAC (SINGLE SPEC SPAC (SINGLE SPEC SPAC (SINGLE SPEC SPAC (SINGLE SPEC SPAC (SINGLE SPEC).
- 10) RIVER BED AND BAY WATER ADJACENT.
- 11) WATER LEVEL VARIATION +1.0' FROM 10' YEAR FLOOD LEVEL (ONCE EVERY 10 YRS).
- 12) PLACEMENT OF THE SUPERVISOR TOWN.
- 13) THE WETLAND CHA OF CONTAMINANTS.
- 14) THE CONTRACTORS.
- 15) ALL BANK TYPE DET.
- 16) SEE SPECIFICATION.

WETLAND PLATEAU WITH RESIDENTIAL JUNCTION, SEE SHEET PRATYK+BARBER

RIVER LEE

HAZEL REFUND TO RETURN WETLAND CHANNELS WITH CHG DETAIL PRATYK+BARBER

TYPE HW

TYPE SW

Refer to Sheet 6

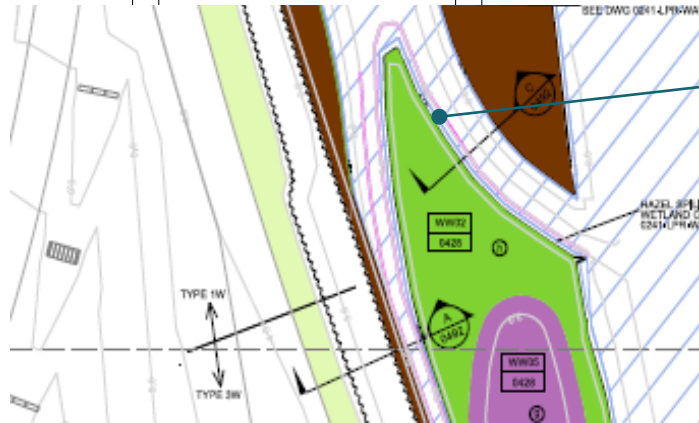
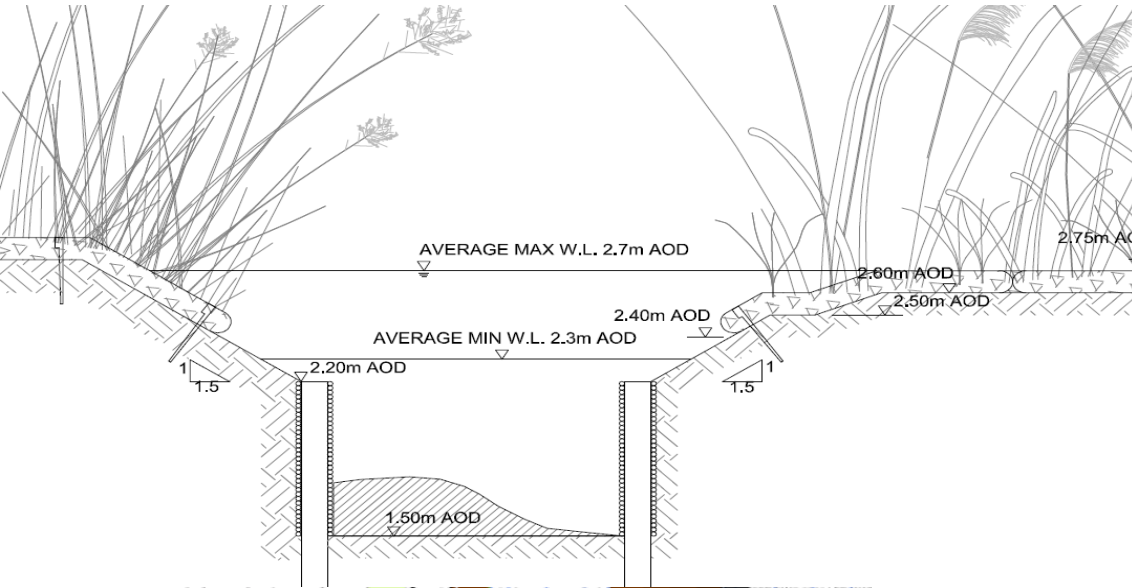
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# Wetland channels





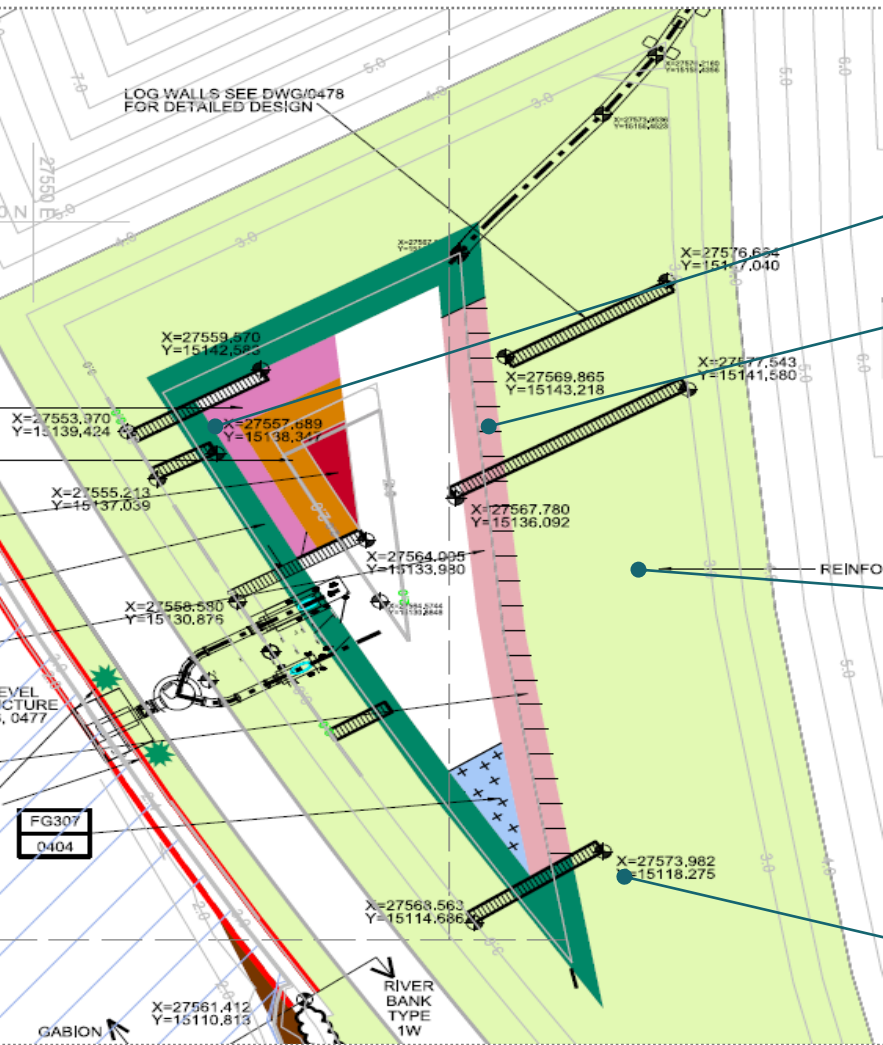
# Wet Woodlands







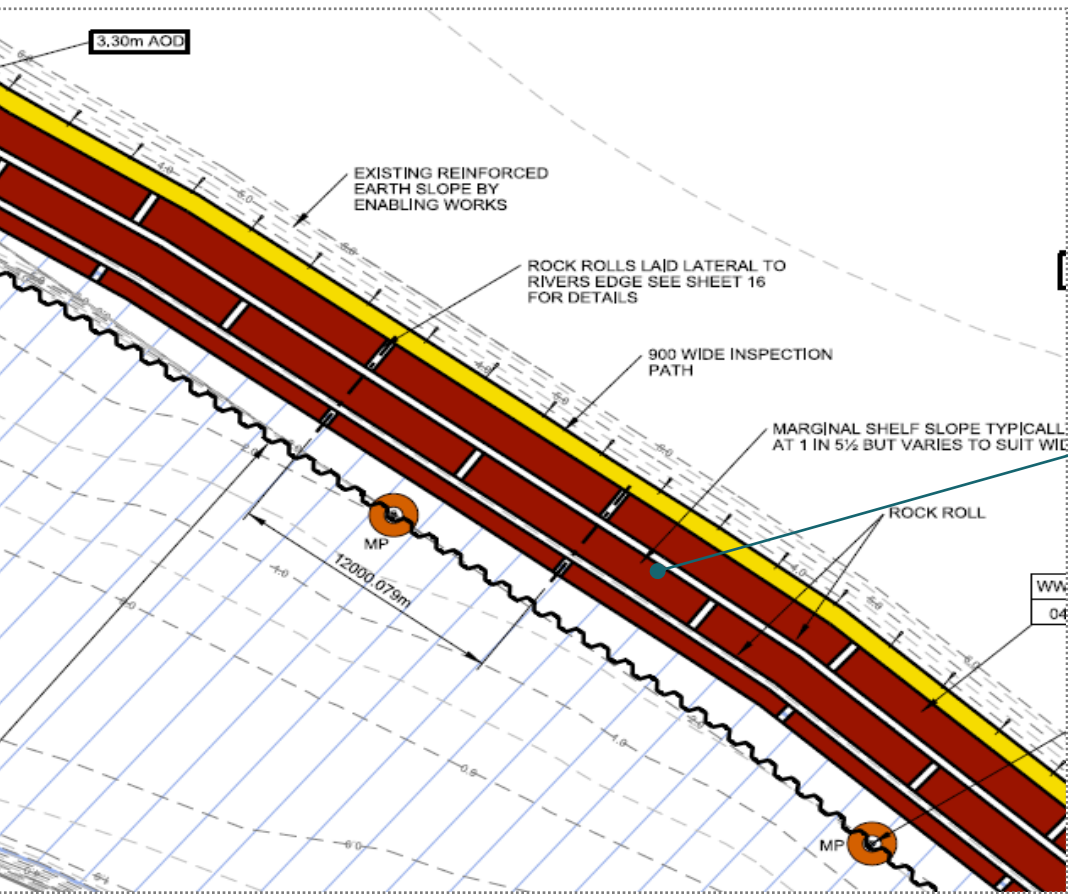














# Waterside margins





# River Edge Engineer

- River engineers
- Ecologists
- Hydrologists and hydraulic experts
- Geomorphologists
- Soils and geotechnical
- Landscape architects
- Botanists / horticulturalists



# Collaboration

- Partnerships vital
  - Environment Agency
  - Lee Valley Park
  - Rivers & Canal Trust
  - 4 London Boroughs
- ODA
- CLM
- Designers
- Contractors and suppliers





**So what have the Games  
done for the River Lee?**





2005 BC:  
Overgrown & low value





2012 AD (Atkins Design):  
Colour structure, habitat with value



# Sustainability Accessibility Remediation





A place for recreation and biodiversity –  
a site of metropolitan importance

2.3ha of wetland habitat

An important wildlife corridor





“We believe that our work on London 2012 will showcase the Games as a feat of engineering excellence, demonstrating the breadth and quality of career opportunities in engineering and design”



# End