



# Hyder Consulting

## CIRIA Seminar 29 April, 2008

### *Treating Hazardous Waste on Site*

**Dennis Barrie**



© Hyder Consulting



## Services for Morrison Construction Ltd.

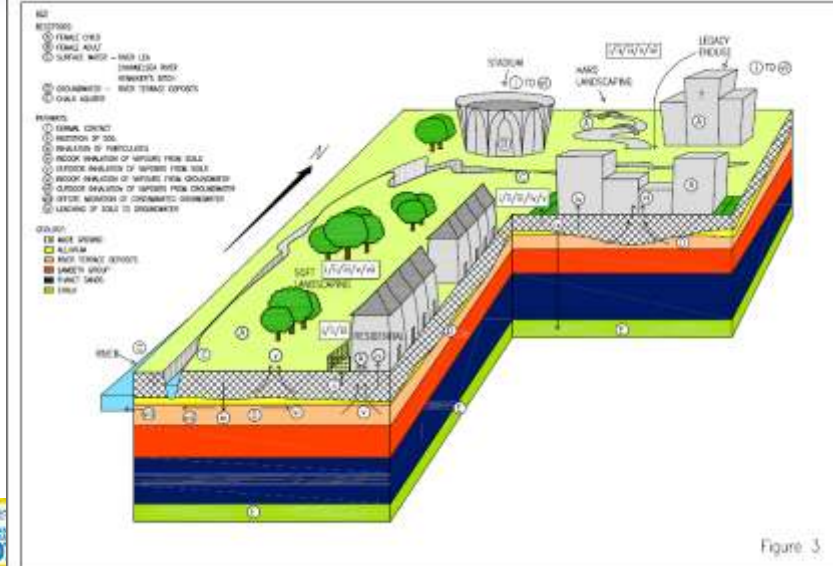
- Environmental Management Plan
- Site Waste Management Plan
- Pre-Demolition Audits
- Site Investigation Programme
- Licensing and Regulations
- MTL Deployment Forms & Civil Design
- Remediation Options Study – each CZ
- Remediation Method Statements
- Verification Reports



© Hyder Consulting



## Site Conceptual Model



© Hyder Consulting

## Need for a MoU with the Environment Agency



- Clear controls to protect environment
- Agree clear regulatory understanding before site works start for dealing with : → →
- Avoid unnecessary delays & uncertainty
- Avoid duplication (documentation)
- Prevent waste leaving site due to regulatory uncertainty, delay and programme implications

- Excavated soils – clean and contaminated
- Groundwater
- Treatment processes
- Stockpiling
- Deposition
- Import of materials
- Export of wastes
- Construction waste
- Demolition materials



© Hyder Consulting



## Who/What Benefits from MoU?

- Regulatory interface improves
- Client increases certainty on cost / programme
- Project team – delivery
- Follow-on developers - continuity
- Utility companies
- Sustainability improves – measured by KPI
- Compliance and liabilities clear



© Hyder Consulting



## Materials Management Plan

### Olympic Park – one site

Engineering processes – soils and demolition materials not contaminated are excluded from WML

Soil/material **suitable for use** without treatment is not waste – WML does not apply



© Hyder Consulting

# Materials Management Plan



**WML applies when soils or groundwater require treatment:**

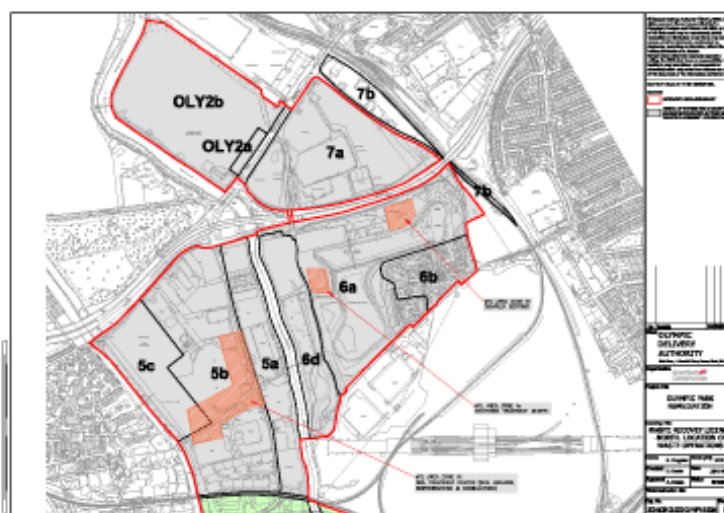
Aim: is to become ***suitable for use***

Defined in: Materials Management Plan



© Hyder Consulting

# North Olympic Park



© Hyder Consulting

# Materials Management Plan



## Deposit of hazardous waste on site:-

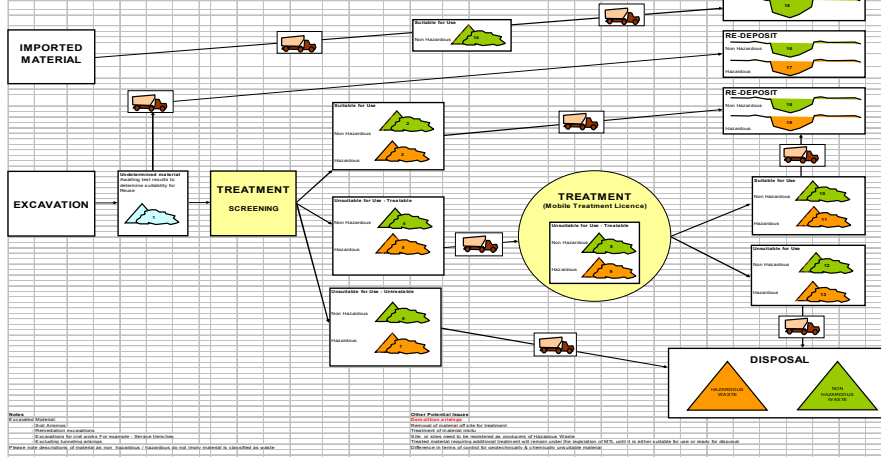
Site Licence - Waste Recovery Licence (WRL) - new!  
or  
Remediation Position Statement

Both must be proved by risk assessment & agreed with EA



© Hyder Consulting

## Material Management Flow Chart



© Hyder Consulting

# Materials Management Plan



## **Suitable For Use**

Defined by CLEA UK risk based framework that is used to satisfy Planning law in UK

At Olympic Park site this incorporates:

Global Remediation Strategy & SSRS (for each zone)



© Hyder Consulting

# Materials Management Plan



## **Suitable For Use**

in practice we need to meet:

- SI methodology as EA's model procedures, CLR 11 (EA 2004)
- CLEA risk assessment framework (EA & Defra) – human health
- P20 – groundwater risk assessment



© Hyder Consulting

## Materials Management Plan



### **Suitable For Use**

- to satisfy planning conditions:

### **3 stage sign off :**

SSRS

Detailed design and method statements (RMS)

Verification, in general accordance with EA draft (NC/00/38)



© Hyder Consulting

## Remediation Works



**Soil Treatment Centre**  
MTL with Site Specific  
Deployment Form

Soil washing (100 – 150  
tonnes/hour)

Two plants

Stabilisation

Bioremediation



© Hyder Consulting

## Remediation Works



### Primary Sorting/screening

Coincidental handpicking of  
ACMs no MTL necessary

Primary aim removing  
ACMs – MTL needed.



© Hyder Consulting

## Remediation Works



### Complex sorting:

Separation and recovery of  
soils, recyclable materials  
from made ground/ old  
landfill, under MTL

- 70/30 soil:refuse
- Health risks
- Asbestos
- Radiation
- Japanese knotweed
- Re-use criteria



© Hyder Consulting

# Remediation Works



**Pollution Control**



© Hyder Consulting

# Remediation Works



**Sludge Disposal**



© Hyder Consulting

## Summary – Treating Hazardous Waste on Site



Exemptions & WML  
incorporated into  
Environmental Permits

MoU – clarify with EA

**Suitable for Use** – risk  
based

New – Code of Practice &  
Sign-off



© Hyder Consulting

Thank you for listening

For more information please contact:

Dennis Barrie – Hyder Consulting

Tel: 0870 000 3006/07921 492 147

E-mail: [dennis.barrie@hyderconsulting.com](mailto:dennis.barrie@hyderconsulting.com)



© Hyder Consulting