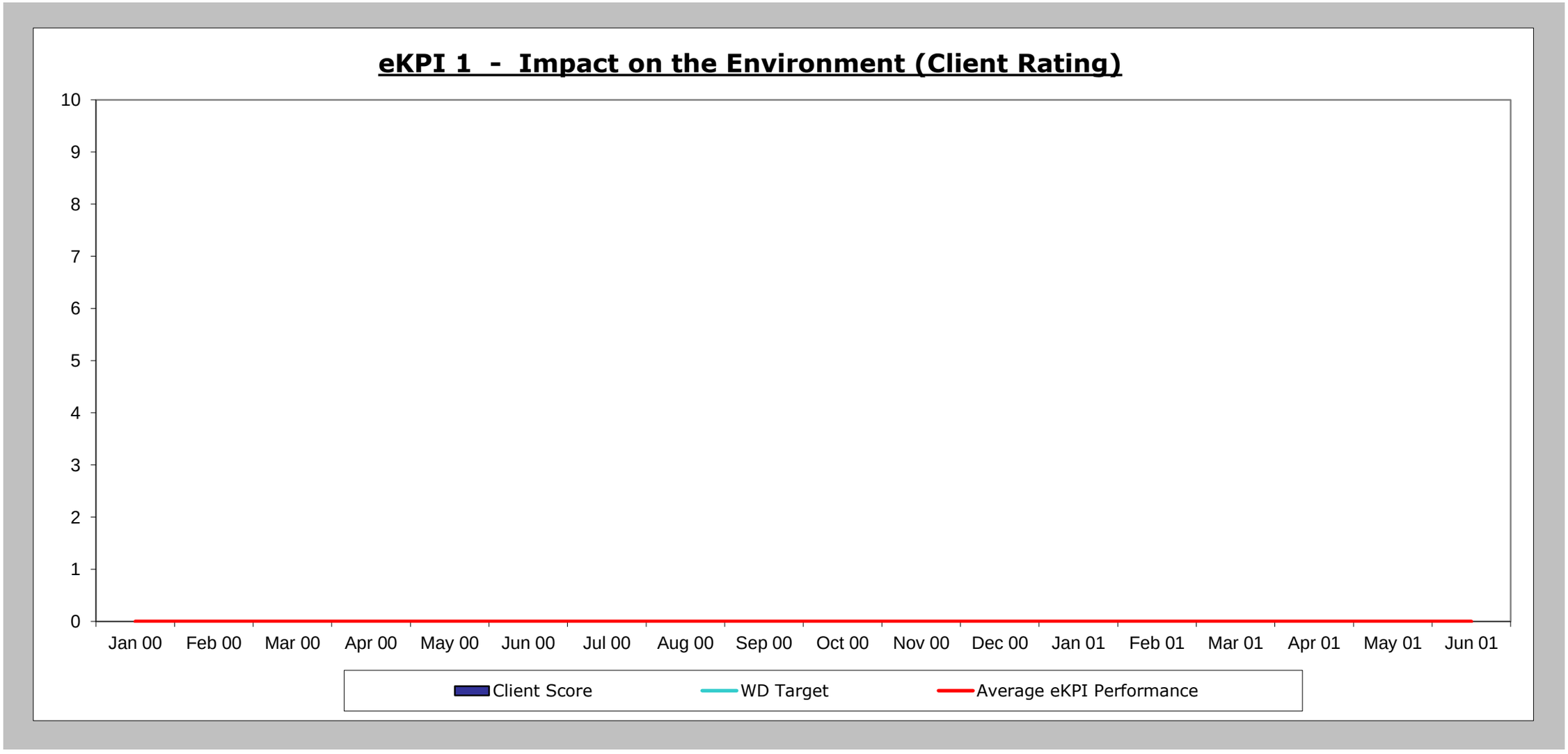
WILLMOTT DIXON

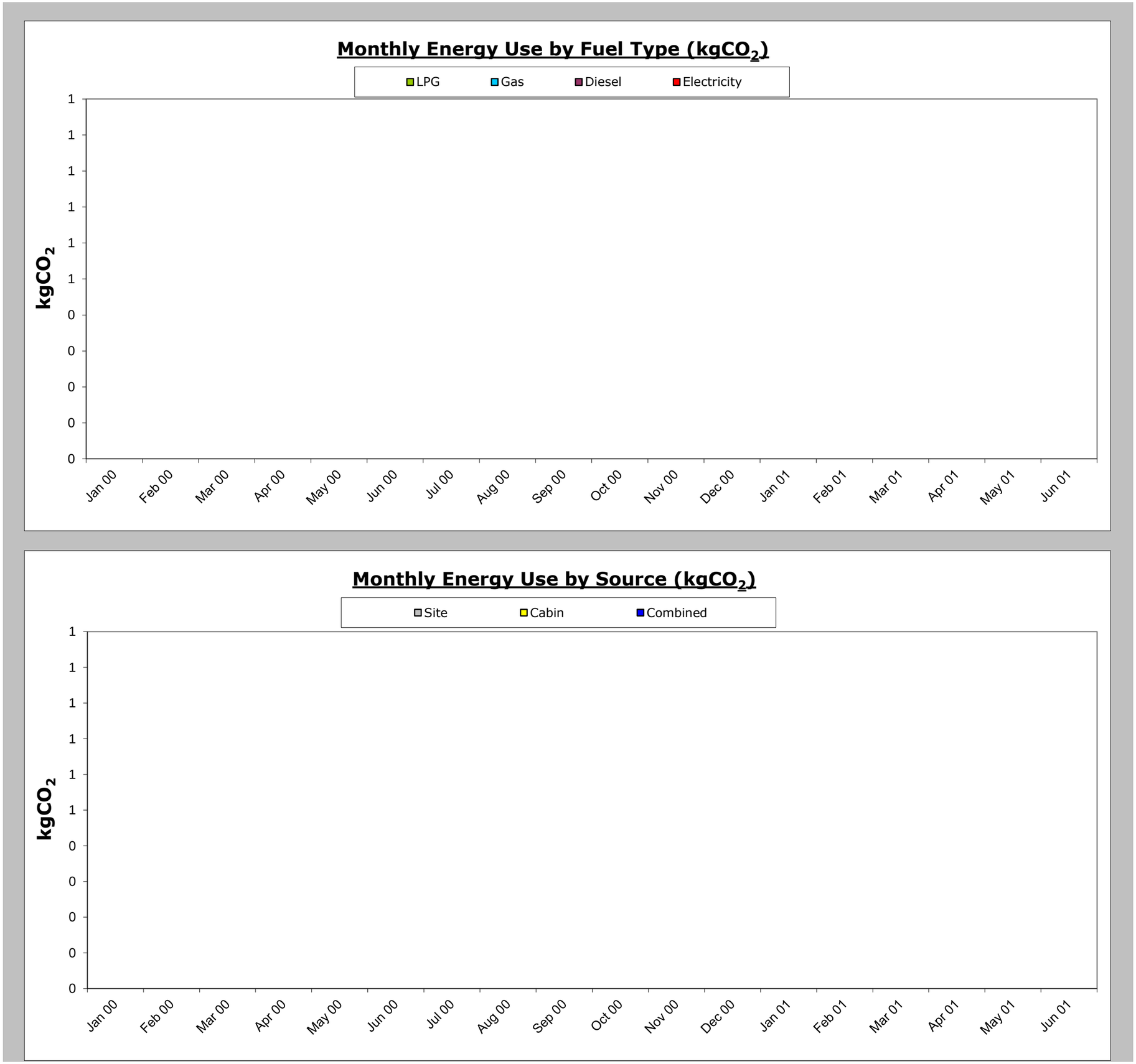
Use the cells below to provide commentary on performance figures achieved. Details should be provided on extreme and inconsistent figures, and initiatives undertaken to improve performance.

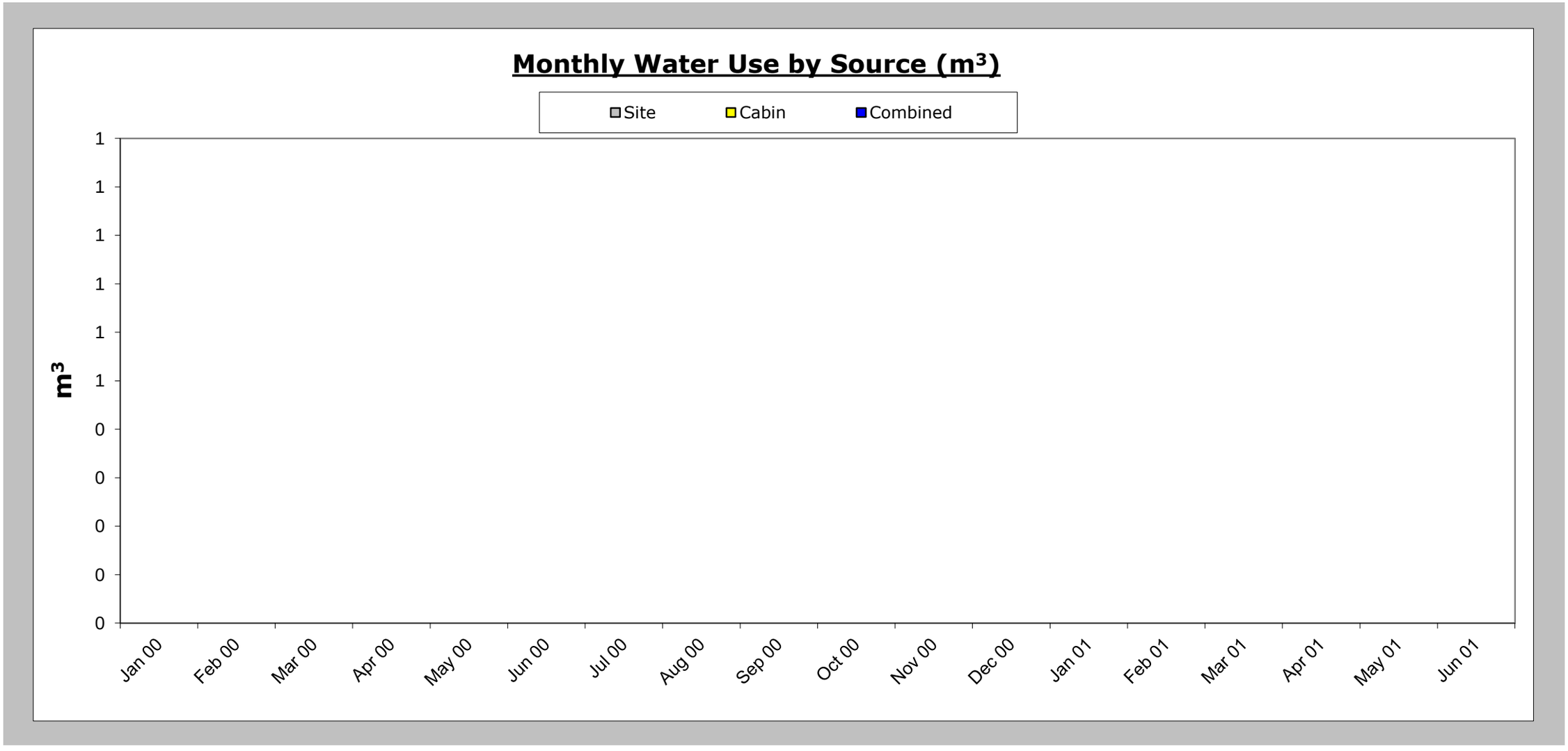
EVERYBODY PLAYS A PART

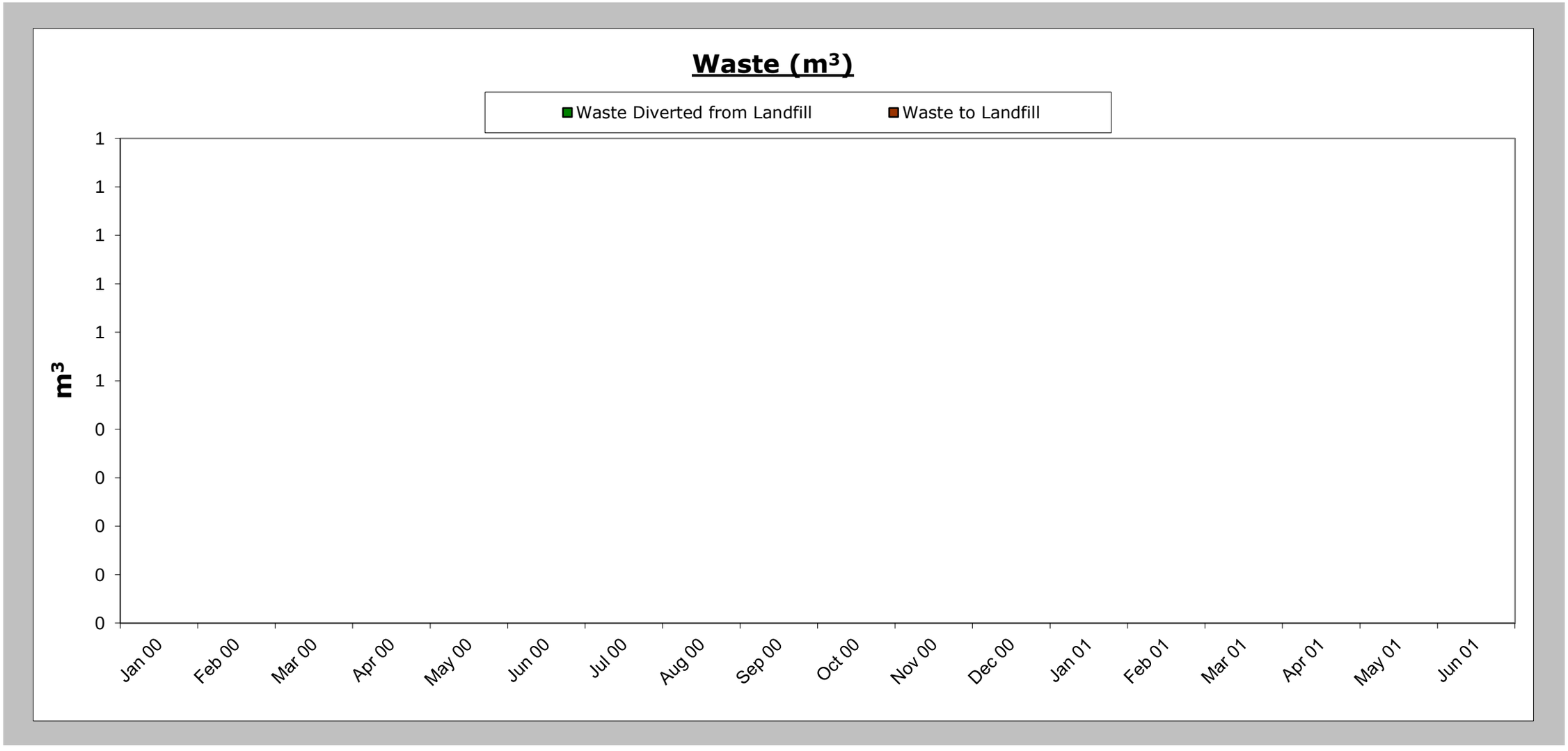
Month	Commentary
e.g. Feb-11	e.g. **eKPI 3:** Diesel generator in use to provide energy to cabins prior to site electric installation. **eKPI 6:** High overall waste figures due to large excavation (5000m3) during first month on-site.

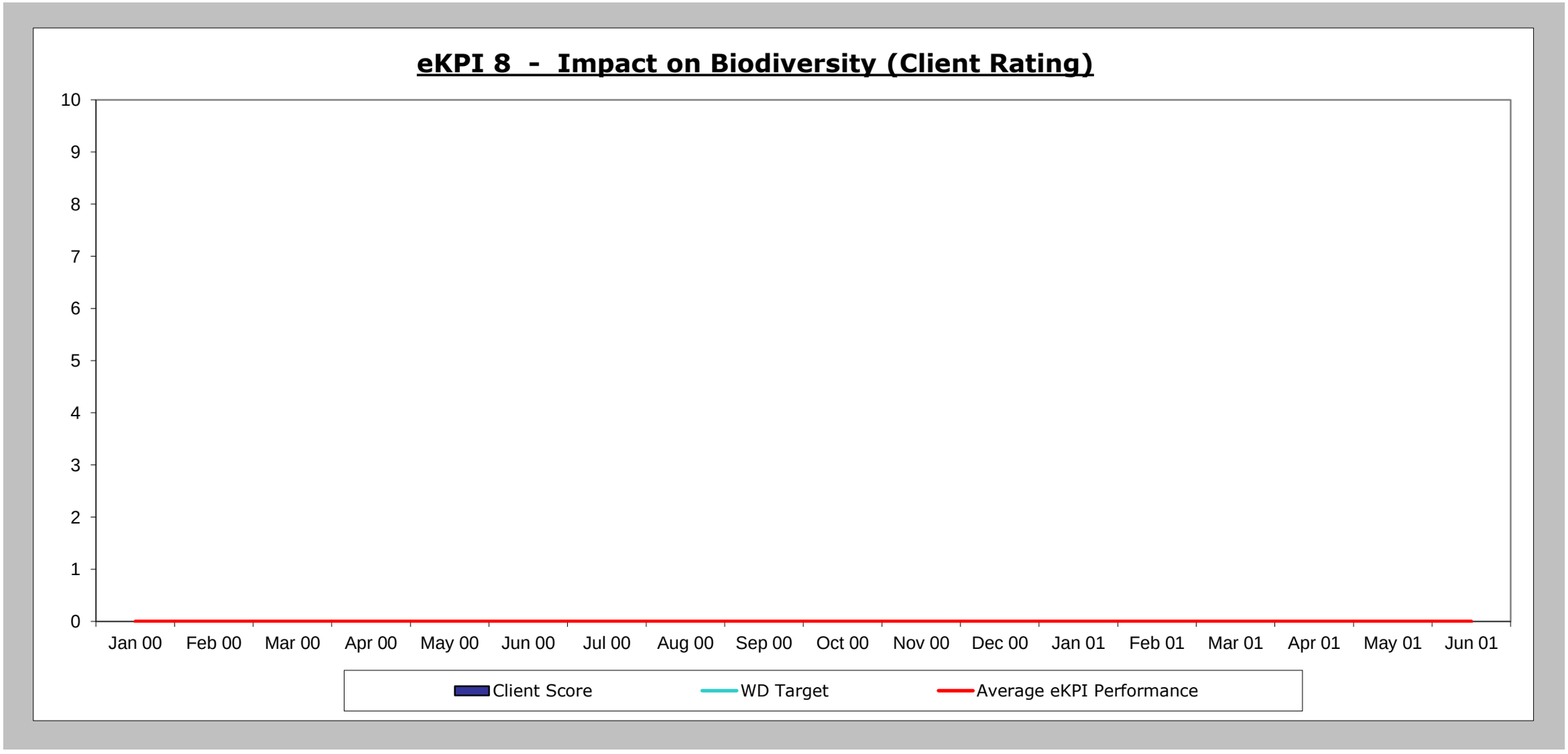
				£0.00	Jan 00	Feb 00	Mar 00	Apr 00	May 00	Jun 00	Jul 00	Aug 00	Sep 00	Oct 00	Nov 00	Dec 00	Jan 01	Feb 01	Mar 01	Apr 01	May 01	Jun 01	Overall
	Contract Value																						
	Monthly Value				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cumulative Value				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
eKPI 1	**Impact on the Environment**		Client Score																				
			Average																				**0.00**
	Targets	**eKPI 1**	WD Target	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
eKPI 8	**Impact on Biodiversity**		Client Score																				
			Average																				**0.00**
	Targets	**eKPI 8**	WD Target	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
Electricity	Electricity Use (Meter 1)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Electricity Use (Meter 2)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Electricity Use (Meter 3)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Electricity Use (Meter 4)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Electricity Use (Meter 5)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Electricity Use (Other)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Combined Electricity Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cabin Electricity Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Site Electricity Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Monthly Electricity Use		**kWh**		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	
	Combined Electricity Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Cabin Electricity Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Site Electricity Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Electricity Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Electricity Emissions/£10		**kg CO2/£100k**																				
	Cumulative Electricity Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Cumulative Electricity Emissions/£		**kg CO2/£100k**																				
Gas	Gas Use (Meter 1)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Gas Use (Meter 2)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Gas Use (Meter 3)	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Combined Gas Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cabin Gas Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Site Gas Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Monthly Gas Use		**kWh**		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Combined Gas Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Cabin Gas Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Site Gas Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Gas Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Gas Emissions/£100k		**kg CO2/£100k**																				
	Cumulative Gas Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Cumulative Gas Emissions/£100k		**kg CO2/£100k**																				
LPG	LPG Use 1	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	LPG Use 2	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Combined LPG Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cabin LPG Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Site LPG Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Monthly LPG Use		**kWh**		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Combined LPG Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Cabin LPG Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Site LPG Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly LPG Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly LPG Emissions/£100k		**kg CO2/£100k**																				
	Cumulative LPG Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Cumulative LPG Emissions/£100k		**kg CO2/£100k**																				
Diesel	Diesel Use 1	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Diesel Use 2	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Diesel Use 3	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Diesel Use 4	Combined	kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Combined Diesel Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cabin Diesel Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Site Diesel Use		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Monthly Diesel Use		**kWh**		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Combined Diesel Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Cabin Diesel Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Site Diesel Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Diesel Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Diesel Emissions/£100k		**kg CO2/£100k**																				
	Cumulative Diesel Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Cumulative Diesel Emissions/£100		**kg CO2/£100k**																				
	Total kWh		kWh		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
eKPI 3	Total Combined Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Total Cabin Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Total Site Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Total Monthly Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Total Monthly Emissions/£100k		**kg CO2/£100k**																				
	Total Cumulative Emissions		kg CO2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total Cumulative Emissions/£100k		**kg CO2/£100k**																				**0.0**
	Targets	**eKPI 3**	WD Target	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
eKPI 5	Water Use (Meter 1)	Combined	m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Water Use (Meter 2)	Combined	m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Water Use (Meter 3)	Combined	m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Water Use (Meter 4)	Combined	m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Water Use (Meter 5)	Combined	m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Water Use (Other 1)	Combined	m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Water Use (Other 2)	Combined	m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Combined Water Use		m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Cabin Water Use		m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Site Water Use		m^3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Total Water Use		**m^3**		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Monthly Water Use		m^3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Water Use/£100k		**m^3/£100k**																				
	Cumulative Water Use		m^3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Cumulative Water Use/£100k		**m^3/£100k**																				**0.0**
	Targets	**eKPI 5**	WD Target	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
eKPI 6	Monthly Waste		m^3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Waste/£100k		**m^3/£100k**																				
	Cumulative Waste		m^3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Cumulative Waste/£100k		**m^3/£100k**																				**0.0**
	Targets	**eKPI 6**	WD Target	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
eKPI 6b	Waste to Landfill		m^3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Monthly Waste to Landfill/£100k		**m^3/£100k**																				
	Cumulative Waste to Landfill		m^3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Cumulative Waste to Landfill/£100		**m^3/£100k**																				**0.0**
	Targets	**eKPI 6b**	WD Target	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
	Waste Diverted From Landfill				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Waste Diverted From Landfill/£100k																						
	Cumulative Waste Diverted From Landfill				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	CumulativeWaste Diverted From Landfill/£100k																						
eKPI 7	Vehicle Movements		No.		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Vehicle Movements/£100k		**No./£100k**																				
	Cumulative Vehicle Movements				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Cumulative Vehicle Movements/£100k																						**0.0**
	Targets	**eKPI 7**	60% CE Target	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	


eKPI 1 - Impact on the Environment (Client Rating)
10
9
8
7
6
5
4
3
2
1
0
Jan 00
Feb 00
Mar 00
Apr 00
May 00
Jun 00
Jul 00
Aug 00
Sep 00
Oct 00
Nov 00
Dec 00
Jan 01
Feb 01
Mar 01
Apr 01
May 01
Jun 01
Client Score
WD Target
Average eKPI Performance


Monthly Energy Use by Fuel Type (kgCO2)
LPG
Gas
Diesel
Electricity
kgCO2
1
1
1
1
1
1
0
0
0
0
0
Jan 00
Feb 00
Mar 00
Apr 00
May 00
Jun 00
Jul 00
Aug 00
Sep 00
Oct 00
Nov 00
Dec 00
Jan 01
Feb 01
Mar 01
Apr 01
May 01
Jun 01
Monthly Energy Use by Source (kgCO2)
Site
Cabin
Combined
kgCO2
1
1
1
1
1
1
0
0
0
0
0
Jan 00
Feb 00
Mar 00
Apr 00
May 00
Jun 00
Jul 00
Aug 00
Sep 00
Oct 00
Nov 00
Dec 00
Jan 01
Feb 01
Mar 01
Apr 01
May 01
Jun 01


Monthly Water Use by Source (m³)
Site
Cabin
Combined
m³
1
1
1
1
1
0
0
0
0
0
Jan 00
Feb 00
Mar 00
Apr 00
May 00
Jun 00
Jul 00
Aug 00
Sep 00
Oct 00
Nov 00
Dec 00
Jan 01
Feb 01
Mar 01
Apr 01
May 01
Jun 01


Waste (m³)
Waste Diverted from Landfill
Waste to Landfill
m³
1
1
1
1
1
1
0
0
0
0
0
Jan 00
Feb 00
Mar 00
Apr 00
May 00
Jun 00
Jul 00
Aug 00
Sep 00
Oct 00
Nov 00
Dec 00
Jan 01
Feb 01
Mar 01
Apr 01
May 01
Jun 01


eKPI 8 - Impact on Biodiversity (Client Rating)
10
9
8
7
6
5
4
3
2
1
0
Jan 00
Feb 00
Mar 00
Apr 00
May 00
Jun 00
Jul 00
Aug 00
Sep 00
Oct 00
Nov 00
Dec 00
Jan 01
Feb 01
Mar 01
Apr 01
May 01
Jun 01
Client Score
WD Target
Average eKPI Performance

Environmental Emergency Planning Arrangements

SITE DUTIES

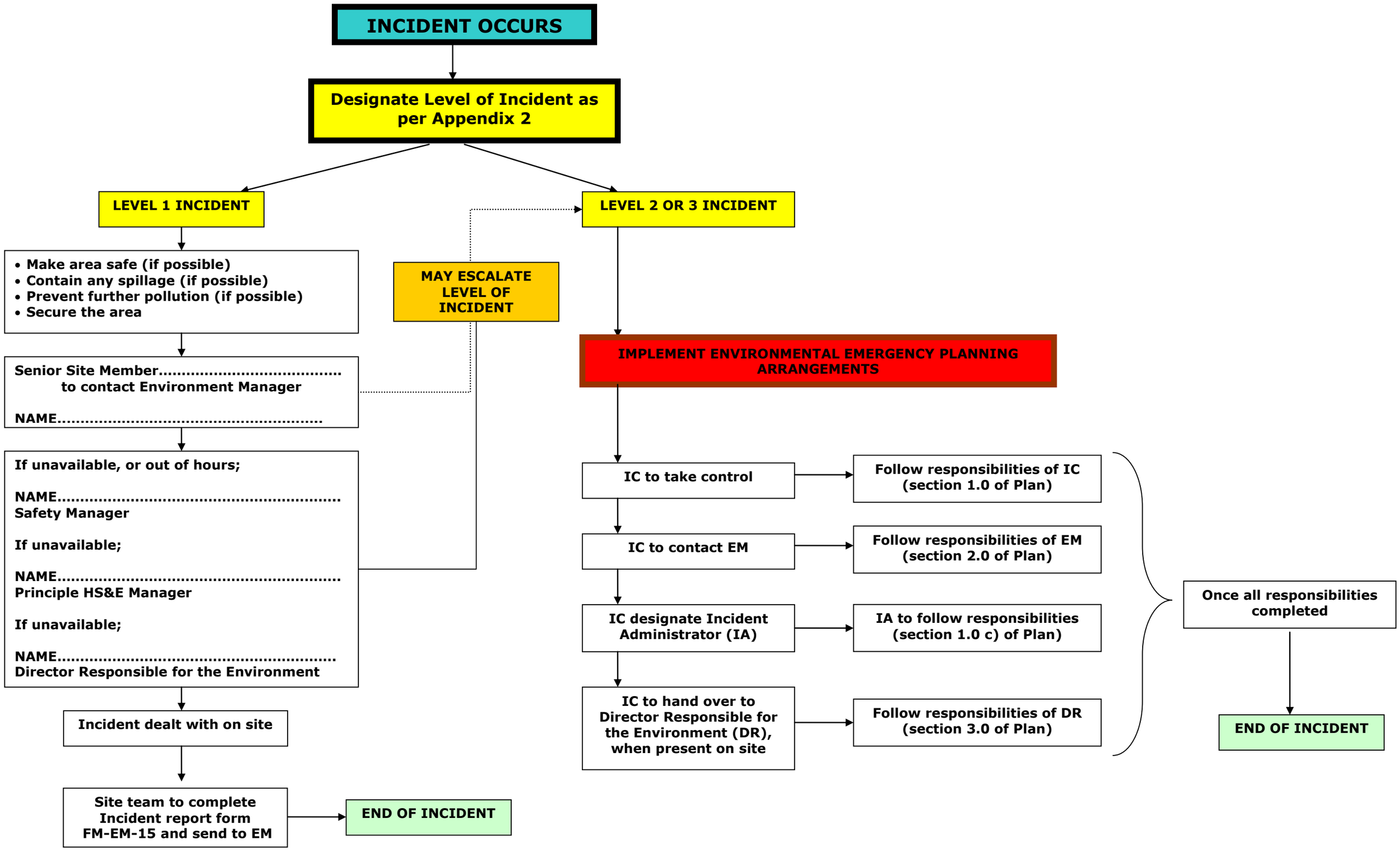
Project Title here

Project No. here

WILLMOTT DIXON
SINCE 1852

PROCEDURE TO BE FOLLOWED – TO BE READ IN CONJUNCTION WITH THE ENVIRONMENTAL EMERGENCY PLANNING ARRANGEMENT ROLES

APPENDIX 1



INCIDENT LEVEL MATRIX

APPENDIX 2

Note: The lists are NOT exhaustive as other incidents types of may occur.

Scale of Emergency	Example Environmental Incidents	Contacts (In order of Priority)	Escalation/ Actions
LEVEL 1 - MINOR **CLASSIFIED AS:** Site incident or emergency which is contained on site and can be managed by onsite personnel and resources.	• Oil or other hazardous substance spills of less than 10 litres AND/ OR requiring use of spill kit. • Failure of equipment – e.g. cement tank pipework during unloading. • Minor disturbance to wildlife – birds nesting but not affecting works. • Unauthorised work in a Tree Protection Zone. • Breach of Planning Conditions. • Discovery or damage to archaeological artefacts. • Discovery of unknown contaminated land on site. • Nuisance – noise, vibration, dust and odour issue.	• Site Management Team • Operations Manager • Environment Manager **Environment Manager may decide to inform:** • Principal HSE Manager • Site Receptionist	**ACTION:** Site team to complete Incident form **FM-EM-07** and submit to Environment Manager. **If required;** Investigation and/ or a Written Report by: • Site Management Team • Principal HSE/ Environmental Manager **POTENTIAL TO MOVE TO LEVEL 2**
LEVEL 2 - SERIOUS **CLASSIFIED AS:** Site incident or emergency which requires assistance from off site third parties and resources to manage or contain the situation, e.g. Oil spill response contractors, Fire Service, etc.	• Oil or other hazardous substances spills which have or may leave the site, over, underground or in pipes (of more than 10 litres). • Disturbance to wildlife – birds nesting and affecting works/ schedule. • Unauthorised discharge to sewer/ environment about to occur or already occurring. • Waste has or is about to leave site but not fully documented. • Containment of contaminated material/ land on site. • Fire or Flood - Dependent on Severity, e.g. skip fire. • Terrorism/ public disorder.	All of the above as listed for Level 1 incident, plus: • Operations Director • Director Responsible for the Environment • Managing Director **Environment Manager to determine requirement to contact the following:** • Environment Agency • English Nature/ CCW • Specialist Contractors etc **Director Responsible for the Environment to determine requirement to contact the following:** • Insurers • Specialist Legal Advisors	**ACTION:** **IMPLEMENT ENVIRONMENTAL EMERGENCY PLAN** Potential Investigation and/ or a Written Report by: All the above as listed for Level 1 incident, plus: • Media interest (Press, Television, etc) • Utility Companies • EHO/ Noise Officer • Environment Agency • Local Planning Authority • Other Agencies/ Authorities **Additional Consequences:** • Legal process started by any of the above • Bad Publicity • Increased Insurance Premiums • Loss of Revenue/ Increased Cost • Client Dissatisfaction • Community concern **POTENTIAL TO MOVE TO LEVEL 3**
LEVEL 3 – SERIOUS **CLASSIFIED AS:** Worksite Incident or Emergency which requires assistance from off site third parties e.g. As per Level 2 plus: Police, Bomb Disposal, Air Ambulance, Local Authority, etc.	• Oil or other hazardous substances spills which has left the site or contaminated shallow groundwater (of more than 100 litres) OR loss of control of the incident. • Serious damage to wildlife e.g. protected species/ habitats. • Contamination that may or has caused damage to public health. • Waste illegally dumped – disposed at location other than documented or expected. • Fishkill. • Fire or Flood - Dependent on Severity. • Terrorism/ public disorder.	All the above as listed for Level 2 incident, plus: • CEO • Head of Communications • Company Secretary • All Regional Managing Directors	**ACTION:** **IMPLEMENT ENVIRONMENTAL EMERGENCY PLAN** Investigation and/ or a Written Report by: All the above the above as listed for Level 2 incident, plus: • Police • Media Coverage (Press, Television, etc) • Willmott Dixon Main Board

INTRODUCTION

This document is intended to be a source of guidance and reference for site teams that become involved in an environmental incident, such as a diesel/ oil/ chemical spillage, or any other incident causing contamination of land or water (surface or ground), especially where the Environment Agency and/ or Local Authority need to be notified.

The following arrangements (which are not exhaustive as different incidents may require specific responses) are to be actioned where such an incident occurs.

This procedure is an aide to ensuring that Willmott Dixon staff have an awareness of the requirements and a clear strategy for managing circumstances as they unfold.

The Level of incident is classified within Appendix 2. This determines the extent of the incident, and states the appropriate actions to be taken.

The arrangements must be tested at least annually on each site. The test may take the form of a desktop exercise or a mock spillage and the format should be agreed with your Environmental Manager. Details of the test should be recorded in Appendix 8.

Since the Environmental Damage Regulations 2009 came into force in England on 1 March, a prosecution is no longer necessary before it is necessary to undertake remedial action or compensation work to deal with the long-term pollution caused by our business. This means that if our activities threaten to damage, or have damaged, water, land, natural habitats or species, we must alert the authorities and do whatever is necessary to prevent or repair the damage. In effect this is a direct admission of guilt and each incident must be considered carefully and an appropriate and credible response made in each case.

REVISION RECORD

Rev	Date	Changes		
			Ops Mgr/Con Mgr	Env Mgr

CONTRACT:	

CONTRACT No:	

CONTENTS:

PREPARED BY: **DATE:**

TITLE: Operations/ Construction Manager

DISTRIBUTION

This document when completed (together with all Appendices and associated attachments) **MUST** be stored with your RED emergency folders **in a separate environmental section at the back of the file.**

In addition the following documents must be displayed on the site Environmental Noticeboard:

- **Appendix 1 - Emergency Arrangements – Flow Chart**
- **Appendix 3 - Site Plan** (together with associated attachments)
- **Appendix 4 - Emergency Contact Numbers**

1.0 ROLE OF THE INCIDENT COMMANDER

At the first notification of an incident the following action is to be taken by the following designated individuals (following the process within **Appendix 1)**.

1. **Senior Site Employee (SSE)**
The first task is to designate a classification of Level of Incident, and take the appropriate action from that point **(see Appendix 2)**.

The **SSE** will become the **Incident Commander (IC)** until a more senior member of Willmott Dixon staff attends, this would be expected to be the **LCO Director Responsible for Environment (DR).**

The **SSE** is to designate the following areas of responsibility:
a) Control of incident area, if possible
b) Contact Environment Manager (EM)
c) Document the event

a) Control of Incident

The **IC** is to assess the incident area, where possible taking action to isolate the area and prevent further pollution.

The **IC** is to maintain the area as secure until relieved by the **Director Responsible for the Environment (DR).** Until relieved of their duties the **IC** will become the main Willmott Dixon contact for request for further control measures.

At this stage it would be advisable to ask for witnesses to the incident to identify themselves.

b) Contact Environment Manager

The **IC**, or other designated person, is to contact the **Environment Manager (EM)**. Where the **EM** is not available, or the incident is out of hours, the **IC** is to contact the **Safety Manager (SM).** Contact is also to be made with those individuals as listed in the Incident Level Matrix **(Appendix 2)**.

c) Documentation of event

The **IC** should designate an **Incident Administrator (IA)** to document the events. The incident should be documented using **Appendix 5** (Names of those people contacted), **Appendix 6** (minutes of meetings) and **Appendix 7** (the Incident Log recording decisions or actions taken including times). The **IC** or **DR** should sign them as a true record of the discussions.

When an incident occurs emergency services, Environment Agency, Incident Response Contractors, specialists, etc., may hold meetings to determine how they plan to:

- Investigate the incident
- Clear away any spill
- Isolate areas
- Interview witnesses

The **IC** should be prepared to carry out risk assessments and method statements as requested by the emergency services/ investigating agencies/ specialist contractors.

2.0 ROLE OF THE ENVIRONMENT MANAGER

The **Environment Manager (EM)** as soon as possible, once on site, is to:

1. Investigate and classify the incident as level 1, 2 or 3 according to the Environmental Incident Matrix **(Appendix 2)** and determine whether the incident falls into the categories of incident covered by the Environmental Damage Regulations 2009.

   Environmental Damage only refers to:

   Wildlife - Adverse effects on the integrity of a Site of Special Scientific Interest (SSSI) or on the conservation status of species and habitats protected by EU legislation outside SSSIs, for example plants, birds, bats, reptiles and amphibians. In Schedules 2 and 4 of the Wildlife and Countryside Act 1981 (as amended). (Contact English Nature or CCW in Wales). Examples would be deaths of species or physical damage to habitat.

   Water and Groundwater - Adverse effects on surface water or groundwater that lead to a deterioration in the status of that water (under the Water Framework Directive), for example oil, silt and mud, cement wash, pesticide spills/ drift or sewage spills. (Contact Environment Agency) Most incidents would not fall into this category.

   Contaminated Land - Contamination of land that results in significant risk of adverse effects on human health. E.g. the accidental discovery of contaminants that may be odorous, toxic or otherwise damaging to human health. (Contact Local Authority).

2. Contact the **Director Responsible for the Environment (DR)**, if required.

3. Report incidents of a serious nature to the Group Safety Inspectors by the quickest possible means, following the procedure documented in **Section 3.01** of the **H&S Policy**.

4. Liaise with the **IC** to make suitable decisions regarding the incident.

5. Ensure that the incident is/ has been reported to the relevant individuals as listed in the Environmental Incident Matrix **(Appendix 2)** i.e. Operations Manager, Director Responsible for Environment, Managing Director, and all relevant bodies if deemed necessary (e.g. Environment Agency).

5. Ensure that ALL photographs, method statements and any paperwork that is relevant to the incident are collated in an incident file identified as the Master File, including incident log form FM-EM-07 and any documentation that the Incident Administrator produces.

6. Maintain the Master File with all the original paperwork.

7. Collate with the **DR** a summary incident report for the **Master File only.**

8. Ensure that the Willmott Dixon Company Secretarial team has been informed of the incident, if required.

9. Ensure, with the **DR**, that Willmott Dixon staff who have any information regarding the incident have communicated it to the IC.

10. Liaise with the **DR** to ensure that Willmott Dixon staff are aware of the need to make no comments regarding the incident.

11. Offer help assistance and guidance where and as required.

12. Produce an Incident Report, as directed by the Company Secretary for Level 2 or 3 incidents, if required.

3.0 ROLE OF THE NOMINATED DIRECTOR RESPONSIBLE FOR ENVIRONMENT

The **Director Responsible for Environment (DR)** will, as soon as possible, once on site:

1. Receive a briefing from the **Incident Commander (IC)** as to the current situation.

2. Take control of the incident.

3. Discuss progress of the incident with the **Environment Manager (EM).**

4. Arrange for orders for specialist contractors or equipment to deal with the incident.

5. Liaise with the Emergency Services/ Environment Agency/ Local Authority as the Willmott Dixon representative.

6. Ensure that the application of these procedures is carried out.

7. Ensure that Willmott Dixon staff make no comment to anyone regarding the incident including any of the emergency services, Environment Agency, Local Authority or Press, unless given prior authorisation.

8. Ensure that where Willmott Dixon staff are requested to submit statements to the emergency services/ Environment Agency, these are not under the Police and Criminal Evidence Act (PACE) and that a Willmott Dixon witness is present, preferably the EM. If a statement under PACE is required then a solicitor should be present.

9. Maintain responsibility for the site and if necessary hand-over control to the emergency services. Willmott Dixon remains totally responsible for planning and acting on all site activities following the incident.

10. While responding to the incident, the **DR** must take steps to prevent damage or further damage and,

    - notify the Environment Agency, English Nature or CCW.

    - Provide information and undertake preventive and remedial measures, as requested by the authority

    - Submit proposals for remediation.

11. Understand the requirements to pay costs claimed by the authority in respect of "environmental damage".

4.0 ROLE OF THE SAFETY MANAGER

The **Safety Manager (SM)** has the following responsibilities:

1. When the incident occurs either;

    a. during working hours, if the **Environmental Manager** is not available, or
    b. outside of working hours,

2. The **SM** resumes the responsibility of the **Environmental Manager**, given in Section 2.0.

    In such circumstances the **SM** is to contact the **Director Responsible for Environment** who will provide/ co-ordinate technical support for the **SM**.

APPENDIX 3

5.0 SITE PLAN

A copy of the site plan is to be filed here.

This should show, where applicable:

- Site drainage arrangements, including surface water drains, foul sewers (including direction of flow) and soakaways if present,
- Any oil interceptors present
- The location and contents of any storage tanks
- The location of any designated COSHH areas
- The location of any adjacent watercourses or ditches
- The location of any sensitive neighbours
- The location of any sensitive wildlife, protected species or Tree Protection Order trees
- The location of any sensitive habitats (e.g. SSSIs, SINCs, SACs, etc)
- The location of any known or suspected archaeology
- The location of any skips or waste storage

APPENDIX 4

6.0 EMERGENCY PROCEDURES TELEPHONE NUMBERS

LCO Environment Manager –	*Name* *Contact Number*
Senior Safety Manager –	*Name* *Contact Number*
Director Responsible for Environment –	*Name* *Contact Number*
LCO Buyer - (To produce orders for contractors/ equipment)	*Name* *Contact number*
* Managing Director * Company Secretary * Chief Executive Officer * Head of Communications * All Regional Managing Directors	**Contact Numbers issued to DR from Regional HR*
Group Environment Manager –	Martin Ballard 07772 137594
Environment Agency –	National Call Centre 08708 506506
English Nature -	National Call Centre 0845 600 3078
Countryside Commission for Wales -	National Call Centre 0845 130 6229
Local Authority –	*Name* *Contact Number* *Out of Hours Contact Number*
Gas –	*Name* *Contact Number*
Water -	*Name* *Contact Number*
Electric –	*Name* *Contact Number*
Waste Service Provider –	*Name* *Contact Number*
Incident Response Service Provider –	Braemar Howells 08700 73 77 66 73
Willmott Dixon Communications Manager -	Andrew Geldard 07968 406134

APPENDIX 5

EMERGENCY INCIDENT - DETAILS OF EXTERNAL PARTIES CONTACTED

Project Name:	
Brief Nature of Incident:	
Designated Level of Incident:	
Date:	

NAME	ADDRESS/ COMPANY/ AGENCY	TELEPHONE NO.

APPENDIX 6

EMERGENCY INCIDENT - RECORDS OF MEETING MINUTES

Project Name:	
Brief Nature of Incident:	
Designated Level of Incident:	
Date:	

ATTENDEES	**COMPANY/ AGENCY**

ITEM	**ACTION**	**PERSON RESPONSIBLE**
Signature of Incident Commander/ Director Responsible for the Environment		

APPENDIX 7

INCIDENT LOG

This document is a **'Record'** of the incident and **'Subsequent Chain of Events'**. It is to include the following about the incident: (see 'Brief Nature of Incident' below) *what happened, who or what was involved, when and where it occurred, decisions & actions taken, details of all communications (received & sent) i.e. telephone calls, e-mails, etc arrival & departure of WDC Staff (job titles only) Emergency Services, Agencies, Local Authorities, etc;* and any other event!

Project Name:				**CIS No:**		**Incident Report No:**
Brief Nature of the Incident:						
Designated Level of the Incident:		**Date:**		**Construction Manager:**		

Time	Action/ Communication Completed, Received, Sent or Made	Entry By Whom	Remarks
Example			
10.20	*Incident verbally reported to Construction Manager by ABC Brickwork.*	*John Smith*	*WDC Emergency Planning Arrangements instigated*
10.22	*Incident reported to Op's Director, Principal HSE Manager by the IC.*	*Tom Jones*	*Phoned - DD, EE, & FF*
10.23	*Initial investigation commenced*	*John Smith*	*Site Team – AA, BB & CC*
10.10	*Source of pollution was stopped and contained.*	*John Smith*	
10.40	*Technical details of Hydraulic Pump requested from DEF Engineering*	*John Smith*	*E-mal from BE Site Engineer*
11.00	*WDC Environment Manager arrived.*	*John Smith*	*Briefed by IC*

Notes:

APPENDIX 7 cont'd

INCIDENT LOG cont'd

Continuation Sheet No: **Date:**

Project Name:		**CIS No:**		**Incident Report No:**	

Time	Action/ Communication Completed, Received, Sent or Made	Entry By Whom	Remarks

Notes:

APPENDIX 8

DRILL LOG

Project Name:		**CIS No:**	

Date	Actions undertaken or Communications Made	Persons Attending	Remarks
Example: 07/03/11	*Mock spillage setup outside cabins using washing up liquid. Subcontractors were given a toolbox talk on spillages, a copy of the spill procedure and asked to respond appropriately.*	*Groundworkers - A.Smith/B.Jones/ C.Michaels Steel - D.Philips/ E.Martin/F.Douglas*	*Spillage was successfully cleared with no issues.*
Or: 07/03/11	*Telephone numbers in emergency procedures contact list (Appendix 4) were all called and checked.*	*B. Manager*	*Local Authority out-of-hours number wrong/ D.V.Howells has changed name to Braemar Howells. Both updated.*

SITE WASTE DATA

WASTE CARRIER _____

Date: _____ Ticket Ref: _____

Activity
___ Construction
___ Demolition
___ Excavation

Waste Container
___ Skip
___ Lorry
___ Tanker
___ Wheelie Bin
___ Bag
___ Barrel

Size/Quantity:
_____

Density
Estimated Void: ____ %

Segregation
___ Segregated
___ Mixed

Waste Type(s)	%
Ceramic/Brick:	____
Concrete:	____
Electrical:	____
Furniture:	____
Inert:	____
Insulation:	____
Metals:	____
Office/Ad-Hoc:	____
Packaging:	____
Plaster/Cement:	____
Plastics:	____
Timber:	____
Vegetation:	____
Liquids & Oil:	____
Hazardous:	____

WASTE CARRIER _____

Date: _____ Ticket Ref: _____

Activity
___ Construction
___ Demolition
___ Excavation

Waste Container
___ Skip
___ Lorry
___ Tanker
___ Wheelie Bin
___ Bag
___ Barrel

Size/Quantity:
_____

Density
Estimated Void: ____ %

Segregation
___ Segregated
___ Mixed

Waste Type(s)	%
Ceramic/Brick:	____
Concrete:	____
Electrical:	____
Furniture:	____
Inert:	____
Insulation:	____
Metals:	____
Office/Ad-Hoc:	____
Packaging:	____
Plaster/Cement:	____
Plastics:	____
Timber:	____
Vegetation:	____
Liquids & Oil:	____
Hazardous:	____

WASTE CARRIER _____

Date: _____ Ticket Ref: _____

Activity
___ Construction
___ Demolition
___ Excavation

Waste Container
___ Skip
___ Lorry
___ Tanker
___ Wheelie Bin
___ Bag
___ Barrel

Size/Quantity:
_____

Density
Estimated Void: ____ %

Segregation
___ Segregated
___ Mixed

Waste Type(s)	%
Ceramic/Brick:	____
Concrete:	____
Electrical:	____
Furniture:	____
Inert:	____
Insulation:	____
Metals:	____
Office/Ad-Hoc:	____
Packaging:	____
Plaster/Cement:	____
Plastics:	____
Timber:	____
Vegetation:	____
Liquids & Oil:	____
Hazardous:	____

WASTE CARRIER _____

Date: _____ Ticket Ref: _____

Activity
___ Construction
___ Demolition
___ Excavation

Waste Container
___ Skip
___ Lorry
___ Tanker
___ Wheelie Bin
___ Bag
___ Barrel

Size/Quantity :
_____

Density
Estimated Void: ____ %

Segregation
___ Segregated
___ Mixed

Waste Type(s)	%
Ceramic/Brick:	____
Concrete:	____
Electrical:	____
Furniture:	____
Inert:	____
Insulation:	____
Metals:	____
Office/Ad-Hoc:	____
Packaging:	____
Plaster/Cement:	____
Plastics:	____
Timber:	____
Vegetation:	____
Liquids & Oil:	____
Hazardous:	____

WASTE CARRIER _____

Date: _____ Ticket Ref: _____

Activity
___ Construction
___ Demolition
___ Excavation

Waste Container
___ Skip
___ Lorry
___ Tanker
___ Wheelie Bin
___ Bag
___ Barrel

Size/Quantity:
_____

Density
Estimated Void: ____ %

Segregation
___ Segregated
___ Mixed

Waste Type(s)	%
Ceramic/Brick:	____
Concrete:	____
Electrical:	____
Furniture:	____
Inert:	____
Insulation:	____
Metals:	____
Office/Ad-Hoc:	____
Packaging:	____
Plaster/Cement:	____
Plastics:	____
Timber:	____
Vegetation:	____
Liquids & Oil:	____
Hazardous:	____

WASTE CARRIER _____

Date: _____ Ticket Ref: _____

Activity
___ Construction
___ Demolition
___ Excavation

Waste Container
___ Skip
___ Lorry
___ Tanker
___ Wheelie Bin
___ Bag
___ Barrel

Size/Quantity:
_____

Density
Estimated Void: ____ %

Segregation
___ Segregated
___ Mixed

Waste Type(s)	%
Ceramic/Brick:	____
Concrete:	____
Electrical:	____
Furniture:	____
Inert:	____
Insulation:	____
Metals:	____
Office/Ad-Hoc:	____
Packaging:	____
Plaster/Cement:	____
Plastics:	____
Timber:	____
Vegetation:	____
Liquids & Oil:	____
Hazardous:	____

ENTERED ELECTRONICALLY ☐

Weekly Site Environmental Inspection Checklist

Project:	

Confirm the following arrangements are in place <u>at time of inspection</u> or detail the action(s) taken or required.

	Inspection observations recorded by:	Date & Signed	
	Environmental Management Arrangement	**Y or N/A**	**Actions or improvements made**
<u>Pollution Prevention: Land, Air & Water</u>	**Fuel & Hazardous Liquids:** • Stored in 110% capacity bunds (or fuel cubes) which are damage free and empty • Containers are labelled with content and capacity • Located on hard standing, away from drains (or drains protected) and with impact protection (fenced) • Have appropriate spill kit (oil or chemical) & drip tray • Refuelling and Spillage procedures in close proximity • Fixed down in the event of floods		
	Materials: • Fixed down in the event of high wind or floods		
	Spills: • Appropriately dealt with in a timely manner • Spill kit replaced • Incident Report produced (FM-EM-15)		
	Concrete & Mortar Washout, Site Run Off: • Contained and allowed to evaporate where possible • Directed to a foul sewer and temporary Trade Effluent Discharge Consent in place		
<u>Nuisance Avoidance</u>	**Mud/ Dust:** • Site dampened down when dusty; record kept • Roads swept when muddy. Drains protected by membranes to catch silt (kept free of leaves/silt) • Stock piles located away from boundaries and covered/ seeded. • Dusty loads are covered. Dusty activities (e.g. block cutting) are screened off or dust suppression used		
	Noise & Vibration: • Sticking to working hours • Neighbours informed of upcoming disruptive activities, e.g. piling/significant site activities		
	Traffic & Access: • Clear access around site is maintained, e.g. footpaths are kept clear • No inconsiderate parking around site		
<u>Materials & Waste</u>	**Materials & Waste:** • Materials are stored tidily, away from access routes and under cover as appropriate • Skips are labelled, in good condition and on hard standing where possible • Waste is minimised and disposed of in the correct skip, with hazardous waste kept separate • Waste transfer notes are being correctly completed		
<u>Wildlife Heritage</u>	**Wildlife & Archaeology/Heritage:** • Tree roots and branches are protected • Wildlife is protected & allowed to leave of own accord • Archaeology/ historical artefacts are protected and appropriate parties informed/records & plans kept		
<u>Comms</u>	**Environmental Hazards & Comms boards:** • Boards are current, up to date and reflect site hazards at point of project stage delivery		
<u>CCS</u>	**Considerate Constructors:** • CCS poster & 24 hour emergency number displayed • Notice boards show current/relevant information • Hoarding is in good condition and free from graffiti • Footpaths immediately around site litter free		

Weekly Site Environmental Inspection Checklist

Project:	

Confirm the following arrangements are in place <u>at time of inspection</u> or detail the action(s) taken or required.

	Inspection observations recorded by:	Date & Signed	
	Environmental Management Arrangement	**Y or N/A**	**Actions or improvements made**
Pollution Prevention: Land, Air & Water	**Fuel & Hazardous Liquids:** • Stored in 110% capacity bunds (or fuel cubes) which are damage free and empty • Containers are labelled with content and capacity • Located on hard standing, away from drains (or drains protected) and with impact protection (fenced) • Have appropriate spill kit (oil or chemical) & drip tray • Refuelling and Spillage procedures in close proximity • Fixed down in the event of floods		
	Materials: • Fixed down in the event of high wind or floods		
	Spills: • Appropriately dealt with in a timely manner • Spill kit replaced • Incident Report produced (FM-EM-15)		
	Concrete & Mortar Washout, Site Run Off: • Contained and allowed to evaporate where possible • Directed to a foul sewer and temporary Trade Effluent Discharge Consent in place		
Nuisance Avoidance	**Mud/ Dust:** • Site dampened down when dusty; record kept • Roads swept when muddy. Drains protected by membranes to catch silt (kept free of leaves/silt) • Stock piles located away from boundaries and covered/ seeded. • Dusty loads are covered. Dusty activities (e.g. block cutting) are screened off or dust suppression used		
	Noise & Vibration: • Sticking to working hours • Neighbours informed of upcoming disruptive activities, e.g. piling/significant site activities		
	Traffic & Access: • Clear access around site is maintained, e.g. footpaths are kept clear • No inconsiderate parking around site		
Materials & Waste	**Materials & Waste:** • Materials are stored tidily, away from access routes and under cover as appropriate • Skips are labelled, in good condition and on hard standing where possible • Waste is minimised and disposed of in the correct skip, with hazardous waste kept separate • Waste transfer notes are being correctly completed		
Wildlife Heritage	**Wildlife & Archaeology/Heritage:** • Tree roots and branches are protected • Wildlife is protected & allowed to leave of own accord • Archaeology/ historical artefacts are protected and appropriate parties informed/records & plans kept		
Comms	**Environmental Hazards & Comms boards:** • Boards are current, up to date and reflect site hazards at point of project stage delivery		
CCS	**Considerate Constructors:** • CCS poster & 24 hour emergency number displayed • Notice boards show current/relevant information • Hoarding is in good condition and free from graffiti • Footpaths immediately around site litter free		

Environmental Incident Report

Incident No. (to be completed by EM)		**Level**	
	*FM-EM-05 Incident escalation operates by three Levels: **L1** = Minor; **L2** = Major; **L3** = Serious*		
Contract No. and Title			
Responsible Manager			
Date of Incident		**Time**	
Incident identified by...			
Contact Details for Notifier (Address and telephone number)			
Authorities Notified (Date & Time)			
Contact Details for Authority (Address and telephone number)			

Short Summary Description of Incident

Details of Incident

Actions taken to address problem and prevent a reoccurrence

	Action to be taken	Individual	Completion Date	Signed Off
1				
2				
3				
4				

Person completing this form	**Contact Details**

ENVIRONMENTAL SITE VISIT REPORT

WILLMOTT DIXON

CONTRACT TITLE:						
CONTRACT No:				**DATE:**		
Date of last Environmental Site Visit:						
Actions completed from last visit?	**YES**		**NO**		**N/A**	
Outstanding actions:						

Compliance Codes: ✓ Compliant × Minor Non-conformance ☒ Major Non-conformance
+/- Observation **NC** Not checked **NA** Not applicable
R – Recommended **S** - Suggested

ENVIRONMENTAL MANAGEMENT SYSTEMS					
1. Environmental Policy		7. Site Objectives		13. Community Liaison	
2. Environmental Noticeboard		8. Training (WD Staff)		14. Emergency Plan	
3. Environmental Plan		9. Training (Contractors)		15. Audits	
4. Environmental Aspects		10. Inductions		16. eKPIs	
5. Action Notes		11. Weekly Site Inspections		17. SWMP	
6. Legal Register		12. Incidents and Complaints			
POLLUTION PREVENTION					
18. Fuel Storage & Handling		20. Material Storage		22. Drainage	
19. Liquid Storage		21. Spillages		23. Discharges	
SITE ENVIRONMENT					
24. Dust		27. Signs and Labels		30. Wildlife	
25. Traffic and Roadways		28. Site Security		31. Tree Protection	
26. Noise		29. Housekeeping		32. Nesting Birds	
WASTE					
33. Waste Storage		38. Waste Documentation		41. Duty of Care Checks	
34. Segregation		39. Waste Transfer Notes		42. EA Public Register Checks	
35. Reuse and Recycling		40. SWMP Data Collection Sheet		43. Latest % Diversion from landfill for total site waste	
36. Waste Minimisation					
37. Hazardous Waste					
OTHER					
44. CCS		48. Energy Use		52. WRAP Quality Protocol	
45. BREEAM		49. Water Use		53. Noise Monitoring	
46. Environmental Permits - Claire CoP		50. Playing Cards for the Future		54. Vibration Monitoring	
47. Ecological Surveys		51. Environmental Blitz		55. Dust Monitoring	

Action Codes: **I**=immediately stop work and rectify situation/ condition,
A=within 24 hours, **B** = within 7 days, **C** = within period specified
R=Recommended, **S** = Suggested

ITEM	COMMENT	ACTION REQUIRED BY (Action Code)	DATE COMPLETED	SITE RESPONSE

Action Codes:	**I**=immediately stop work and rectify situation/ condition, **A**=within 24 hours, **B** = within 7 days, **C** = within period specified **R**=Recommended, **S** = Suggested			
ITEM	**COMMENT**	**ACTION REQUIRED BY (Action Code)**	**DATE COMPLETED**	**SITE RESPONSE**

Signed: _____ Signed: _____

Environmental Manager: _____ Site Manager: _____

SEND A COPY OF THIS REPORT WITH DETAILS OF THE ACTIONS TAKEN AND COMPLETED WITHIN 7 DAYS OF THE SITE VISIT TO THE ENVIRONMENTAL MANAGER AND THE OPERATIONS DIRECTOR

REPORT TO FILE IN THE PROJECT ENVIRONMENTAL PLAN

EMS	
1) Environmental Policy	Is the WDC Environmental Policy displayed on the Environmental Notice Board or in a prominent position on site? Are WDC staff aware of the key requirements? Can a copy be supplied to the public if requested?
2) Environmental Notice Board	Is all of the required information displayed? Is the BSI ISO 14001 certificate displayed on site? Latest eKPIs? Up to date site layout plan?
3) Environmental Plan	Has the Project Environmental Plan been completed? Is it available on site and up-to-date? Are site staff aware of the Plan? Have all Planning Conditions been discharged?
4) Environmental Aspects	Have the Environmental Aspects Score sheets and associated Action Notes been completed? Have there been any changes in operations on site, legislation or environment which may affect the assessment?
5) Action Notes	Have the Action Notes completed as part of the Aspects assessment been actioned?
6) Legal Register	Has the Legal Register for the site been completed? Have there been any changes in operations on site, legislation or environment which should be included?
7) Site Objectives	Have site specific objectives been set for the site taking into account any significant environmental aspects and legal requirements? Have these been completed by the target date?
8) Environmental Training (WD Staff)	Have the site personnel had sufficient environmental awareness training? Are records kept of training received?
8) Environmental Training (Contractors)	Have the relevant environmental toolbox talks been delivered to site staff? Are records kept of training received?
9) Environmental Inductions	Are environmental inductions given to all contractors using the site? Are signed records kept?
10) Environmental Procedures	Does the site have spillage and fuel delivery procedures displayed on the Environmental Notice Board and at high risk locations such as fuel delivery points?
11) Site Inspection Checklists	Are any environmental inspections carried out by site staff of high risk aspects of site such as fuel storage areas? Are contents of spill kits regularly checked to ensure adequate supplies of materials? Are records of any checks kept on site?
12) Incidents and Complaints	Has the site had any environmental incidents such as spillages or potentially polluting discharges? Have these been recorded on the correct forms and communicated internally? Has the site received any complaints under the CCS? Have any complaints been addressed?
13) Community Liaison	Is the site liaising with the local community to inform them of the progress of works which may affect them? Does the site have a Community Engagement Plan? Are the actions being implemented?
14) Emergency Plan	Is there a copy of the WDC Environmental Emergency Planning Arrangements on site? Is the Environmental Emergency Planning flowchart displayed on the Environmental Notice Board along with a list of up-to-date contact numbers? Have the emergency procedures been tested in the form of a drill?
15) Audits	Have all actions identified in previous audits and inspections been addressed?
16) eKPIs	Is data for eKPIs recorded and the eKPIs completed when required? Are they displayed on the Environmental Notice Board and sent to the Environmental Manager?
17) SWMP	Has the SWMP been completed? Is it available on site and up-to-date? Are site staff aware of the Plan? Are the actions being implemented?
POLLUTION PREVENTION	

18) Fuel Storage and Handing	Is liquid fuel being stored in tanks within suitable bunds which contain all filling and delivery points and can hold 110% of the capacity of the tank? Is the bund impermeable and structurally sound with no drain points? Is it located on a surfaced area protected from vehicle collisions? Is the tank kept locked when not in use? Is the tank labelled with its contents and capacity? Does the site have a copy of EA Pollution Prevention Guidance Note 2? Is there a copy of the Fuel Delivery Procedure (GN-EM-11) and Spillage Procedure (GN-EM-12) Guidance Notes on display either directly on the fuel store tank or on fencing surrounding it? Is there a spill kit and hazardous waste drum located nearby? Have staff been trained in their use?
19) Liquid Storage	Are all drums and containers of liquid being stored upright and with their lids on when not in use? Are they being stored inside a covered, bunded area away from surface water drains and high risk locations? Are they labelled with their contents?
20) Materials Storage	Are materials stored adequately in areas where they are unlikely to be damaged? Are potentially polluting materials stored inside contained areas, away from high risk locations? Are deliveries of bulk materials supervised?
21) Spillages	Is there any evidence of spillages on site? Are there any visible signs of pollution, i.e. oil in drains, staining of the ground? Are drip trays available when re-fuelling? Are any items of plant leaking fuel or oil? Are any spillages cleared up and disposed of appropriately? Is a copy of the Spillage Procedure (GN-EM-12) Guidance Note on display in other high risk locations listing the locations of spill kits on site?
22) Drainage	Is there a copy of the site drainage plan on the Environmental Noticeboard with surface and foul water drains clearly identified? Is there any possibility that polluting substances on site may enter site surface water drains or a nearby watercourse? Or that liquid waste such as solvents or wash water from construction activities may be discharged into the foul sewerage system? Are control measures in place to prevent this from occurring?
23) Discharges	Is the site making a connection to any controlled waters? Has permission from the EA or water company been obtained where necessary? Have measures have been put in place to ensure effects on the environment are prevented or minimised?
24) Dust	Is the site dusty? Are vehicle movements giving rise to excessive amounts of dust from the site roadways? Are measures in place on site to control the amount of dust? Are lorries properly sheeted before leaving site?
25) Traffic and Roadways	Is site traffic causing congestion, parking problems or accidents? Are measures in place on site to control this? Are site roads in good condition? Is the road outside the site free from mud and deposits? Are measures in place to control the amount of mud deposited on the road?
26) Noise	Are noise levels at the site boundary likely to cause nuisance to neighbours? Are noise control measures in place on site? Are vehicles and plant in good working order and have silencers been fitted? Are noise levels controlled by planning conditions? Where noise restrictions apply, are these being complied with? Have any surveys been carried out to assess noise levels outside the site?
27) Signs and Labels	Is site signage up-to-date and does it display relevant environmental information? Are all storage containers and tanks labelled with their contents and capacity?
28) Site Security	Is boundary fencing in good condition and are gates kept locked outside operating hours? Are fencing and gates checked for signs of unauthorised access? Are site cabins and vehicles kept locked when not in use? Are other security measures in place on site?
29) Housekeeping	Is the tidiness of the site giving a good impression to the local community? Is the site managed well to enable adequate movement and access around the site? Are unwanted materials, litter and spillages cleared promptly to avoid contamination of the underlying ground? Are Fairtrade products being used on site?
30) Wildlife Protection	Are any ecological features on site being adequately protected during the works? Are measures in place to prevent operations affecting local wildlife? Are there any invasive plant species on site? Are these being dealt with appropriately?
31) Tree Protection	Are any trees on site being adequately protected during the works? Are site staff aware of those covered by a TPO? Are any materials being stored within the protected area?

32) Nesting Birds	Are there any nesting birds on site? Are any trees due to be removed during the nesting bird period? Have nesting bird surveys been planned/ completed? Are the recommendations being implemented?
WASTE	
33) Waste Storage	Is the storage of waste adequate? Is all waste stored inside skips or containers? Are they in good condition, well maintained and watertight? Are covers used for skips containing lightweight materials or for preventing rainwater accumulating inside where possible? Are skips stored on unsurfaced ground or near drains?
34) Segregation	Is waste being segregated as far as possible on site to enable easy recycling? Are all skips and containers labelled with the wastes which may be deposited inside?
35) Reuse and Recycling	Is any waste from onsite activities being reused or recycled on site, e.g. the use of a concrete crusher? Are any waste recycling activities carried out on site which may require registering with the EA? Is waste paper being recycled? Is any waste being reused or recycled off site? Has this been recorded in the SWMP Data Collection Sheet?
36) Waste Minimisation	Is the site making use of recycled materials? Does inadequate materials storage contribute to damage and wastage? Are any sub-contractors producing unnecessary waste?
37) Hazardous Waste	Is the site registered with the EA as a hazardous waste producer? Are all hazardous wastes stored separately from non-hazardous wastes inside secure containers? Are consignment notes kept on site for all loads of hazardous waste removed? Are they complete (i.e. include Part E completion)? Are these retained for 3 years?
38) Waste Documentation	Are copies of Waste Carriers Certificates held for all companies collecting waste from site? Are they all valid? Are copies of final disposal site licences or exemptions for all sites receiving the waste held on site?
39) Waste Transfer Notes	Does the site have copies of DoC waste transfer notes for each load of waste (including sewage effluent) leaving the site? Do they contain all the correct details including the EWC code? Are copies of DoC transfer notes retained for 2 years?
40) SWMP Data Collection Sheet	Does the SMWP Data Collection sheet include the estimated waste stream data? Have the details regarding the waste contractors that the site is using been entered (i.e. percentage recycling rates)? Have all waste transfers been entered into the SWMP Data Collection Sheet? Is it up to date? Have the transfers been entered accurately?
41) Duty of Care Checks	Have any spot checks been made on those companies removing waste from site to ensure that they are taking the waste to the correct waste management site and that it is being treated of as specified?
42) EA Public Register Checks	Have all of the Waste Carriers been checked on the Environment Agency Public Register? Are there copies of these checks stored with the corresponding certificate? Have all of the disposal facilities been checked on the Environment Agency Public Register? Are there copies of these checks stored with the corresponding licence? Have these been done within the last 12 months?
43) Latest % Diversion from landfill for total site waste	From the SWMP Data Collection Sheet, what is the latest waste % diversion from landfill figure that the site is achieving? Is this achieving the WD targets?
OTHER	
44) Considerate Constructors Scheme	Is the site registered on the Considerate Constructors Scheme? Has a CCS audit taken place? What score was achieved?
45) BREEAM	Is a BREEAM assessment being carried out on this project? What is the likely rating? Is all of the evidence that the site teams are expected to record being stored? Is sustainably sourced timber documentation being recorded (Chain of Custody documents)?
46) Environmental Permits / CL:AIRE Code of Practise	Does the site require any environmental permits, consents, licences or exemptions? If so, have they been obtained before works have commenced? Does the planning permission for the site include environmental conditions? Is the site operating according to any conditions imposed? As an alternative to the environmental permit application route is the CL:AIRE Code of Practise going to be used for excavated soil reuse where the amounts exceed that of the U1 permit exemption requirements?

47) Ecological Surveys	Has an ecological survey been carried out prior to works starting? What are the outcomes? Is a copy available on site?
48) Energy Use	Is energy use on site being minimised wherever possible? Are Burco boilers, timers or door closers being used? Is heating left on when not required or where doors are left open? Are lights on in unoccupied areas? Are window shutters closed in good daylight? Is IT equipment left on standby overnight? Are vehicles or plant left running when not in use?
49) Water Use	What is being done to conserve water on site? Are urinals on constant flush?
50) Playing Cards for the Future	Is the site implementing the Playing Cards for the Future initiative? What score has the site achieved so far?
51) Environmental Blitz	Is the current Environmental Blitz poster on display in the required locations? What have the site done to increase awareness of the Blitz items? Are planned actions/ requirements being implemented?
52) WRAP Quality Protocol	Where there is intention to recover aggregates from demolition processes and either reuse or sell them as products (recycled aggregates), has the WRAP Quality Protocol been complied with?
53) Noise	Noise monitoring to be undertaken to meet Section 61 application.
54) Vibration	Vibration monitoring to be undertaken to meet Section 61 application.
55) Dust	Dust monitoring to be undertaken to meet requirements submitted by WDCW.

ENVIRONMENTAL ASPECTS AND IMPACTS ASSESSMENT

Project:			
Prepared by:		**Date:**	
Approved by:		**Date:**	

WILLMOTT DIXON

TABLE 1 - Identify the activities that are applicable to the project
(hover over cell to see tasks within activity)

		Occuring during project
ACTIVITY	**Demolition**	
	Earthworks	
	Crane Work	
	Concrete Work	
	Carpentry	
	Flooring	
	Roofing	
	Windows & Glazing	
	Plumbing	
	M&E	
	Internal Finish Prep	
	Coatings	
	Building Clean	
	General Site Control	
	Design	
	Transport	
	Purchasing	
	Procurement of Services	

TABLE 2 - Identify the project receptors that may be affected by the project

POTENTIAL RECEPTORS	**Land** - always applicable	Yes
	Air - always applicable	Yes
	Water - applicable due to the presence of ground water	
	Neighbours - e.g. residents, businesses, shops, schools etc.	
	General Public - not applicable when working in areas with restricted access	
	Wildlife - e.g. birds, bats, badgers , newts	
	Vegetation - e.g. trees	
	Archaeology/ Heritage - e.g. burial grounds, monuments, listed features	

PROCESS FOR COMPLETION OF WORKSHEETS

1 - Review the activities within each of the following worksheets. Hide any activities that are not applicable and add any that are project specific.
2 - For each activity identify if WDCW have direct or indirect control.
3 - For each activity establish the significance of the inherent risk using the risk rating system below.
4 - For those activities that are of High or Medium significance review the corresponding mitigating actions and ensure appropriate.
5 - Calculate the significance of the residual risk using the risk rating system below, taking into account to mitigating actions.
6 - For each mitigating action identify who is responsible and when it must be completed by.
7 - Indicate that a mitigating action is complete as appropriate.

GUIDANCE ON ASSIGNING RISK (LIKELIHOOD AND CONSEQUENCE)

Likelihood	Description	Score
Inevitable	Inevitable consequence of activities on site.	5
Likely	Frequent potential occurrence. Frequent experience of situation occurring.	4
Possible	Situation may occur more than once per year. Experience shows occurrence once per year.	3
Remote	Situation may occur with warning. Less than once in 5 years frequency.	2
Improbable	Almost impossible to occur. No instances of situation occurring.	1

Consequence	Description of environmental impact	Score
Catastrophic	Major damage on & off site, national reputation damaged and/ or prosecution possible	5
Permanent	Considerable environmental damage and/ or national reputation damage likely	4
Moderate	Moderate impact, recoverable contamination or damage and/ or local reputation damage	3
Minor	Slight impact, small scale event contained on site, possible local media interest, prosecution unlikely	2
Slight	No measurable environmental consequence, no reputation damage, zero likelihood of prosecution	1

Significance	Action to be taken
High (16-25)	Work can only continue if control measures reduce the risk rating to an acceptable level
Med (5-15)	Introduce control measures to reduce risk as low as reasonably practicable
Low (1-4)	Risk broadly acceptable, but situation needs to be monitored for changes and action to reduce risk

Project:

IMPACT - DESIGN

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Design - Use of Materials in construction	The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only)	✓				0	* During the pre-construction phase, ensure that WRAP's Net Waste Tool has been utilised in design to minimise residual wastes during the construction of the building and its eventual afterlife.* Consider Design Impact Measures for total carbon footprint and life-cycle assessment / whole life costing of any resource used. * Consider modular design in construction for ease of disassemby of materials during maintenance and afterlife of the structure. * Consider off-site prefabrication in design. * Design for quality and durability: longer-lasting and better-functioning products will have to be replaced less frequently, reducing the impacts of producing replacements.	37		0	0			

							* Consider Renewability: materials should come from nearby (local or bioregional), sustainably managed renewable sources that can be composted when their usefulness has been exhausted. * Consider the concept of Biomimicry: "redesigning industrial systems on biological lines ... enabling the constant reuse of materials in continuous closed cycles. * Use low impact materials: choose non-toxic sustainably produced or recycled materials which require little energy to process. * Source materials with the greatest recycled content. * Ensure that all records of decisions made for the design prior to Willmott Dixon involvement have been acquired and considered. * Maximise design decision making opportunities throughout the construction stage.							

Design - Use of energy from fossil fuel sources	The Building Regulations 2000 – the 2006 edition of Part L – Conservation of fuel and power (L1A,L2A,L2A &L2B) Water Resources Act 1991					0	* Where practicable, choose biofuels over fossil fuels * Consider the use of low energy consuming (energy efficient) technology. * Consider the use of wind turbines, solar panels etc to supply renewable energy. * Consider the installation of geo-thermal (ground sourced heating) technology and biomass burning boilers. * Improve insulation of cabins. * Maximise passive design opportunities i.e. natural lighting, ventilation and solar heating.	37, 19		0	0			
Design - Use of Water						0	* Where practicable, use rainwater recovery technology for uses such as toilet flushing and dust suppression. * Install dual flush toilets in cubicles. * Use EcoCubes in the toilets and turn off the cisterns. * Ensure taps turn off automatically in around 20 seconds. * Carry out periodic checks for leaks. * Control water usage with ball cocks on plastic water drums and by fixing leaks. * Ensure fitting of stopcocks.	37, 47		0	0			
Installation of ventilation systems	The Building Regulations 2000 - the 2006 editions of Part F - Ventilation The Building Regulations 2000 - the 2006 edition of Part L - Conservation of fuel and power (L1A, L2A, L2A & L2B)					0	* Ensure ventilation systems are rates are compliant with Building Regulations as a minimum. * Ensure all testing is carried out and that it meets, at least, the required parameters of Building Regulations.	-----		0	0			
Construction of a commercial or public building	The Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations 2007 SI 2007/991 and SI 2007/1669 Background					0	* Ensure that EPCs are produced for all projects upon completion of the project. (Failure to do so will result in a fine of £5000). * Ensure EPC cost is budgeted for in cost plan.	-----		0	0			

ABNORMAL CONDITIONS														
Floods	----					0	* Ensure that the design of the building accounts for the possibility of localised flooding i.e. raise the ground on which the building is to be built on. * Install soakaways and maximise surface water drainage in general.	-----		0	0			
Strong winds	----					0	* Consider forms of screening around the building. * Ensure that the building is designed in such a way to withstand strong wind impacts especially in exposed areas such as rooftops.	-----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Ensure that the building is designed with adequate fire protection such as sprinkler systems, fire doors and other means of isolation.	-----		0	0			

Project:

IMPACT - USE OF RESOURCES

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Consumption of a Resource - Use of resources in office operations	----	✓				0	* Nominate one person responsible for the stock control of stationary supplies. * Turn off lights and IT equipment when not in use. * Avoid printing documents where possible. * Print on both sides of the paper. * Ensure that paper recycling facilities are set up, and staff are aware of the recycling strategy in place. * Improve insulation of cabins. * Utilise wind turbines, solar panels etc to supply renewable energy. * Turn off heaters and air conditioning units in office areas not used.	11, 46		0	0			
Consumption of a Resource - Use of Materials in Construction	The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only)					0	* Store materials so as to prevent damage, vehicle impact and provide cover where susceptible to water damage. * Utilise off-cuts where possible. * Minimise wastage rates.	-----		0	0			
Consumption of a Resource - Use of Cleaning Agents	Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended) Control of Substances Hazardous to Health (Amendment) Regulations 2004					0	* Ensure COSHH data is held for cleaners and store in the cleaners cupboard. * Health & Safety Management to ensure that all relevant risks are assessed and kept up-to-date.	18		0	0			

Consumption of a Resource - Use of water	Water Resources Act 1991					0	* Where practicable, use lower water consumption flush function on dual flush toilets. * Where practicable, use rainwater recovery technology for uses such as toilet flushing and dust suppression. * Use EcoCubes in the toilets and turn off the cisterns. * Ensure taps turn off automatically in around 20 seconds. * Carry out periodic checks for leaks. * Control water usage with ball cocks on plastic water drums and by fixing leaks. * Ensure fitting of stopcocks. * Where appropriate, ensure that dishwashers are only used when it has a full load.	-----		0	0			
Consumption of a Resource - Use of Fuel	----					0	* Switch off all vehicles and plant when not in use. * Consider biofuel over fossil fuels. * Car share where practicable on business journeys. * Locate materials and stockpiles to avoid double handling.	-----		0	0			
Use of Labour	----					0	* Use supply chain registered labour as far as practicable. * Ensure as far as practicable that local labour is sourced. * Ensure that all labour are fully aware of requirements and obligations at site induction and monitor. * Ensure subcontractor training is kept continuously under review. * Encourage car share amongst subcontractors.	-----		0	0			

ABNORMAL CONDITIONS														
Floods	----					0	* Remove all liquids and materials from the flood zone, starting with those that are hazardous and/or destroyed by water. * If liquids or materials cannot be removed, secure down to prevent them floating away/leaving site.	-----		0	0			
Strong winds	----					0	* Secure down all materials, liquids and waste to prevent them blowing away/leaving site.	-----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Remove as much fuel, material and plant as it is safe to do so and direct fire water to foul drains where possible.	-----		0	0			

Project:

Project:

IMPACT - PURCHASING

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Purchasing - Materials in Construction	----	✓				0	* Consider overall waste management costs of materials. * Ensure that materials purchased have come from sustainably managed sources backed with certified eco-labels. Obtain evidence. * Use supplies provided by supply chain registered partners. * Consider product's Life Cycle and Whole Life Costing assessment. * Ensure materials purchased contain low embodied carbon (energy). Obtain evidence. * Consider the energy and water efficiency of the material. * Purchase materials with minimal packaging and ensure take-back schemes for packaging and unused amounts of materials are in place. * Where practicable source materials from exchange initiatives. * Ensure materials purchased are highly durable and require minimal maintenance. * Purchase materials that are suitable for modular construction.			0	0			

Purchasing - Electrical Equipment including office equipment such as Computers, Printers, Fax Machines and Copiers	----					0	* Look for the Energy Rating of electrical appliances. Where possible, buy only goods with and A+, A, or B rating. * Consider products with eco-labels (i.e. "Energy Star") and obtain evidence. * Consider how large the appliance will need to be. In refrigeration products, the capacity can have dramatic effects on the energy consumption. * Source products with multi-functional capabilities and built in energy saving functions such as "auto power down" when not in use. * Consider product's Life Cycle and Whole Life Costing assessment. * Consider overall waste management costs of materials.		3	0	0			
Purchasing - Batteries, General Stationary and Toner Cartridges	The Waste Batteries and Accumulators Regulations 2009 The Hazardous Waste (England and Wales) Regulations 2005					0	* Where possible, buy NiMH or Lithium rechargeable batteries. Most are available in AAA, AA, C, D and 9V as well as specialist sizes. * When purchasing batteries try to avoid those containing Mercury (Hg), Cadmium (Cd) or Lead (Pb). * Where possible, purchase from sustainable sources. * Purchase recycled products. * Try to reduce the amount of paper bought that has been bleached using traditional methods. Try buying paper that has been bleached through the ECF method. * Look out for the environmentally friendly logo in suppliers' catalogues. * Where possible, purchase refillable stationary. * Try purchasing remanufactured cartridges. Make sure they are from a reputable supplier. * Consider using manufacturers and distributors that will take back old cartridges which were purchased from them. * Consider overall waste management costs of materials.		3	0	0			

Purchasing - Refridgeration Equipment	Fluorinated Greenhouse Gases Regulations 2009 Environmental Protection (Controls on Ozone-Depleting Substances) (Amendment) Regulations 2008					0	* Make sure the appliance is CFC-free. * Are the refrigerants environmentally friendly? (Du Pont has a very good website for this information at: http://www.refrigerants.dupont.com/Suva/en US/index.html * Consider product's Life Cycle and Whole Life Costing assessment. * Where possible try to use the smallest capacity appliance that meets your requirements. * Make sure the appliance been insulated to a satisfactory standard. * Consider overall waste management costs of materials (in particular in relation to the recovery / disposal of refrigerants).	11		0	0			
Purchasing - Lighting	The Hazardous Waste (England and Wales) Regulations 2005					0	* Choose fluorescent lighting over incandescent lighting. * Consider product's Life Cycle and Whole Life Costing assessment. * Consider energy efficiency of lighting purchased. * Consider overall waste management costs of materials (in particular in relation to the safe removal of Mercury and other potentially harmful substances).	11		0	0			
Purchasing - Office Furniture	----					0	* Where possible, rather than buying new furniture, find out whether someone else has what you are looking for, or buy recycled furniture. * When buying timber furniture see if it originated from a sustainably managed forest. * Avoid buying wood furniture that is made from tropical hardwood, stick to domestic softwoods instead. * Ask if the finishes or glues used in manufacturing the product were solvent free, formaldehyde free and have low VOC emissions.			0	0			

ABNORMAL CONDITIONS														
Floods	----					0	* Protect all materials and liquids from flood damage i.e. in secure dry storage with bunding.	-----		0	0			
Strong winds	----					0	* Secure down all materials, liquids and waste to prevent damage and dispersal and ensure liquids are bunded.	-----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Keep all materials away from potential fire hazards in secure, cool and dry storage with bunding.	-----		0	0			

Project:

IMPACT - BIODIVERSITY

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Review surveys provided by Client or commission surveys	----	✓				0	1. Phase One Ecological and Arboricultural Survey 2. Review recommendations and executive summaries and if necessary commission further surveys to fully understand risk. 3. Discuss findings with your Environmental Manager. 4. Devise a schedule of actions to be undertaken on site in construction. 5. Include a summary of all surveys and actions in the Project Environmental Plan.	------		0	0			
Works near animals identified as being at risk during construction works, in Ecology reports or from direct observation.	The Wildlife and Countryside Act 1981 (as amended) The Conservation (Natural Habitats etc.) Regulations 1994 (as amended) The Conservation of Habitats and Species Regulations 2010 Protection of Badgers Act 1992 The Wild Mammals Protection Act 1996					0	* Follow guidance in Ecology Reports/ Ecology Management Plans, but in summary, and in order of priority: 1. Clear potential habitat to discourage coming onto site. 2. Isolate and work around 3. Delay works until species have moved 4. Employ licensed ecologist to remove It is an offence to: - Intentionally kill, injure or take the animals - Intentionally disturb animals - Damage, destroy or obstruct nests/ breeding places	03, 28		0	0			

Works near animals that have moved onto site during construction works	The Wildlife and Countryside Act 1981 (as amended) The Conservation (Natural Habitats etc.) Regulations 1994 (as amended) The Conservation of Habitats and Species Regulations 2010 Protection of Badgers Act 1992 The Wild Mammals Protection Act 1997					0	* Seek guidance from Env Manager or project Ecologist, but in summary, and in order of priority: 1. Isolate and work around 2. Delay works until species have moved 3. Employ licensed ecologist to remove It is an offence to: - Intentionally kill, injure or take the animals - Intentionally disturb animals - Damage, destroy or obstruct nests/ breeding places	03, 28		0	0			
Works near plants/ trees/ hedgerows identified as being at risk during construction works	The Hedgerows Regulations 1997 The Town and Country Planning (Trees) Regulations 1999 Planning (Listed Buildings and Conservation Areas) Act 1990					0	* Seek guidance from Environmental Manager or Project Ecologist. * Ensure that notification in writing for any tree works is goven to the Local Planning Authority at least 6 weeks in advance for any work on trees within conservation areas. * Ensure any trees subject to TPOs and those not being felled, lopped or pruned are clearly identified in the PEP and on site inline with construction site best practice.	40		0	0			
Works near plants/ trees/ hedgerows identified as a result of/ or during construction works	The Hedgerows Regulations 1997 The Town and Country Planning (Trees) Regulations 1999 Planning (Listed Buildings and Conservation Areas) Act 1991 Such works must comply with: BS5837 (1991) Trees in Relation to Construction.					0	Seek guidance from Environmental Manager or Project Ecologist: - isolate and work around - delay works until species have moved - employ licensed ecologist to remove	40		0	0			
Works in and around trees and hedgerows, within the Crown or Root Protection Zone	The Hedgerows Regulations 1997 Such works must comply with: BS5837 (1991) Trees in Relation to Construction.					0	* Develop a method statement in line with BS5837-Tree Protection and obtain approval from Environmental Manager, a licensed arboriculturalist and/ or Tree Protection Officer. * Work in accordance with the approved method statement.	40		0	0			

Invasive plant species identified by Ecology report or from on-site observation, for example; - Himalayan Balsam - Japanese Knotweed	The Wildlife and Countryside Act 1981 (as amended) Weeds Act 1959 Control of Ragwort Act 2003 Code of Practice for Using Plant Protection Products					0	* Discuss with Environmental Manager prior to works taking place. * Do not disturb. * Remove in accordance with ecologists recommendations. Seek specialist advice from a suitably qualified contractor, to prevent inadvertent spread of the weeds. * Where using pesticides follow the manufacturer's instructions. * As appropriate dispose of as hazardous waste under the cover of a consignment note.	24, 25		0	0			
Nuisance species on site - pigeons, foxes etc. ("Vermin" is not a legal term and does not permit inhumane action to any bird, mammal, reptile or amphibian. Some insect species are also protected due to rarity).	The Wild Mammals Protection Act 1996 Wildlife and Countryside Act 1981 (as amended)					0	* Humane methods of discouragement/ removal to be used. * Discourage presence by removal of potential habitat or use barriers to separate animals from habitat.	28		0	0			
Works where developments contain, or are adjacent to, SACs or SPAs	The Conservation of Habitats and Species Regulations 2010					0	* Consider the implications in development plans to ensure that no degredation or damage occurs to the designated site. * Ensure any protection measures, licences, etc are sought and are in place prior to development. * Ensure all staff and site operatives are aware of any responsibilities relating to protected sites and species. * Ensure all site staff receive relevant toolbox talks.	------		0	0			

Use of imported timber on project	Control of Trade in Endangered Species (Enforcement) Regulations 1997 (as amended)					0	* Ensure materials supplied to WDCW projects - essentially imported timber - are not in breach of the regulations. * Where possible specify native UK or European grown timbers. * Ensure that they are FSC certified (or another recognised accreditation scheme, e.g. PEFC). * Where tropical hardwoods are specified ensure that Chain of Custody documentation is supplied (FSC or similar certificates/permits) and as an absolute minimum confirmation that species supplied are not those listed in the Annexes to EC Regulation 338/97. * Comply with requirements of GN-EM-20	38		0	0			

ABNORMAL CONDITIONS														
Spillages	Ref: Environmental Emergency Planning Arrangements FM-EM-05 The Environmental Damage (Prevention and Remediation) Regulations 2009 The Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009					0	* Comply with actions stated in GN-EM-34. 1. Stop work immediately and identify the source of the spillage. 2. Prevent further spillage if possible without endangering yourself. 3. Contain or limit the spill using absorbent materials from a spill kit or sand/ earth. 4. Protect sensitive areas such as rivers, ditches or surface water drains with bunds or drain covers. 5. The Environmental Emergency Planning Arrangements should be followed for major spillages or where the spillage is likely to enter a watercourse or surface water drainage system. 6. Bag up all material used to contain and clean up the spill and dispose of appropriately. Materials contaminated with hazardous substances such as oil must be disposed of as hazardous waste under the cover of a Consignment Note.	34, 20		0	0			
Floods	----					0	* Remove all liquids and materials from the flood zone, starting with those that are hazardous and/or destroyed by water. * If liquids or materials cannopt be removed, secure down to prevent them floating away/leaving site.	------		0	0			
Strong winds	----					0	* Secure down all materials, liquids and waste to prevent them blowing away/leaving site.	------		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Remove as much fuel, material and plant as it is safe to do so and direct fire water to foul drains where possible.	------		0	0			

Project:	

IMPACT - ARCHAEOLOGY & HERITAGE

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Review surveys provided by Client or commission surveys	----	✓				0	* Archaeological Desk Top Study or Physical Survey. * Review recommendations and executive summaries and if necessary commission further surveys to fully understand risk. * Discuss findings with your Environmental Manager. * Devise a schedule of actions to be undertaken on site in construction. * Include a summary of all surveys and actions in the Project Environmental Plan.	2		0	0			
Work on a listed building or a building with a Building Preservation Notice	Planning (Listed Buildings and Conservation Areas) Act 1990					0	* Review the planning conditions and work in partnership with the local Planning Authority. * Develop method statements to reflect any requirements of the Planning Authority and work in accordance with them.	2		0	0			
Work that may disturb human burials. E.g. Topsoil strip; Drainage; Excavating/ cut & fill exercise; Ground remediation, e.g. lime stabilisation	Burial Act 1857 Disused Burial Grounds Act 1981					0	* Obtain a licence from the Secretary of State (Ministry of Justice) and work in accordance with any stipulated conditions. * Report any findings to the police and local coronor immediately.	2		0	0			
Work that may disturb ancient monuments and/ or archaeological areas. E.g. Topsoil strip; Drainage; Excavating/ cut & fill exercise; Ground remediation, e.g. lime stabilisation	Ancient Monuments and Archaeological Areas Act 1978					0	* Use mini excavator where archaeological/ historical features are thought to be present and work in a vigilant manner. * If an archaeological/ historical feature is discovered stop work, fence/ block off and inform the Environmental Manager. * Report any findings to English Heritage and Local Planning Authority.	2		0	0			

Unexpected discovery of treasure (coins, precious metals, etc)	Treasure Act 1996					0	* If treasure is discovered stop work, fence/ block off and inform the Environmental Manager. * Treasure should be left in place and a Coronor notified, particularly if the indication is that the object(s) found form part of a larger haul. * Finds are also likely to be of archaeological value so the County Archaeologist should also be notified. * Refer to and comply with GN-EM-02.	2		0	0			
ABNORMAL CONDITIONS															
Discovery of human remains	Burial Act 1857 Disused Burial Grounds Act 1981					0	* Stop work, leave the remains in place and inform site management. * Contact the local police immediately.	2		0	0			
Floods	----					0	* Protect features as much as possible.	----		0	0			
Strong winds	----					0	* Protect features as much as possible.	----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Protect features as much as possible. * Direct fire water to foul drains where possible.	----		0	0			

Project:

IMPACT - LAND

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Review surveys provided by Client or commission surveys	----	✓				0	* Review Site Soil & Geotechnical Survey for issues related to contamination. * Review recommendations and executive summaries and if necessary commission further surveys to fully understand risk. * Discuss all findings with your Environmental Manager. * Devise a schedule of actions to be undertaken on site in construction. * Include a summary of all surveys and actions in the Project Environmental	-----		0	0			
Storing and/or using environmentally hazardous liquids (e.g. fuel, oils, chemicals).	Control of Pollution (Oil Storage) (England) Regulations 2001 Water Resources Act 1991 For further information refer to the Env Agency's Pollution Prevention Guidelines 2 - Above Ground Oil Storage Tanks.					0	* Show storage area on site plans. * Store in accordance with GN-EM-18. * Locate an appropriate spill kit in an accessible location. * Display PR-EM-07 and PR-EM-08 at all storage locations.	18		0	0			
Storing diesel or oil in bowsers/tanks or drums over 200 litres	Control of Pollution (Oil Storage) (England) Regulations 2002 Water Resources Act 1991 For further information refer to the Env Agency's Pollution Prevention Guidelines 2 - Above Ground Oil Storage Tanks.					0	* Store in accordance with GN-EM-18. * Locate on an impermeable surface atleast 10m from any watercourses and surface water drains. * Locate to avoid high traffic areas and to prevent vehicle impact. * Show storage area on site plans. * Locate an appropriate spill kit in an accessible location. * Display GN-EM-17 and GN-EM-34 at all storage locations.	18, 17, 34		0	0			

Fuel Delivery	----					0	* Comply with GN-EM-17. * Check that the refuelling equipment and bowser are in good working order, and repair as required. DO NOT PROCEED IF UNABLE TO REPAIR. * Check the current content of the bowser and adjust the delivery so that it doesn't exceed the spare capacity. * Use a drip tray, empty nozzle into bowser on completion and replace all caps.	17		0	0			
Refuelling Plant	----					0	* Ensure drip tray is used. * Locate an appropriate spill kit in close proximity. * Drain all fuel from nozzle into the plant, replace the nozzle within the fuel bowser and lock.	17		0	0			
Concrete/mortar washout	Water Industry Act 1991 Water Resources Act 1991					0	* Identify and implement a designated, contained washout area atleast 10m from any watercourses or surface water drains. * Comply with actions and requirements stated in GN-EM-05. * If disposal of washout water is required, a) obtain temporary Trade Effluent Discharge Consent from sewerage undertaker to allow pumping of washout water down FOUL sewer, in accordance with consent conditions (with help from your Environmental Manager) b) have the washout water tankered away. Ensure collection of appropriate	5		0	0			
Groundworks	The Contaminated Land (England) Regulations 2006					0	* Observe the uncovered for visual signs of contamination ground during boring, digging, excavating and similar activities. The release of noxious fumes, petrol, oils, solvents, chemical residues and smells may indicate contamination. * If ground is suspected as being contaminated stop work in that area while a sample is tested.	7		0	0			

Groundworks - Knowledge of contaminated land on site (from surveys / Pre Construction)	The Contaminated Land (England) Regulations 2006 Environmental Protection Act 1990 Environmental Damage (Prevention and Remediation) (England) (Wales) Regulations 2008					0	* Obtain all of the required information from the Client to ensure we have all the knowledge to manage the contaminated land on site. *It is the Client's responsibility to conduct a good quality site investigation to determine the potential for contamination on site. As the Contractor, we have the duty to ensure we are given all the background information and understand the history of the site and the actions we have to take to fulfil the requirements of the remedial plan.* * Ensure relevant permits are in place for any remedial works required.	7		0	0			
Groundworks - Discovery of unexpected contaminated land	The Contaminated Land (England) Regulations 2006 Environmental Protection Act 1990 Environmental Damage (Prevention and Remediation) (England) (Wales) Regulations 2009					0	1. Stop work immediately 2. Report the discovery to the Environmental Manager 3. Seal off the area to contain the spread of contaminants 4. Clear the site to ensure there is nothing that could cause fire or explosion 5. Contact a specialist soil testing contractor to take a sample for analysis **If contamination is confirmed:** 6. Contact the Environment Agency or Local Authority 7. Ensure that the suspected contamination is tested and characterised 8. Follow good practice guidance to remediate the land/ manage the area/ comply with the recommended actions.	7		0	0			

Storing contaminated soil on site	Environmental Protection Act 1990 as amended by s.57 of the Environment Act 1995 The Contaminated Land (England) Regulations 2006 Environmental Damage (Prevention and Remediation) (England) (Wales) Regulations 2009 Environmental Permitting (England & Wales) Regulations 2010					0	* Do not stockpile contaminated soil unless it can be avoided. If it is necessary, stockpile only on a hardstanding area to prevent contamination of underlying ground. * Cover stockpiled material to prevent wind-blown dust (potentially contaminated) and to prevent ingress of rainwater. * Control surface drainage from stockpiled area. Water draining from the stockpile may be contaminated and need controlled off-site disposal. * Assess the amount to determine whether a U1 Exemption or and Environmental Permit is required.	7		0	0			

ABNORMAL CONDITIONS													
Spillages	Ref: Environmental Emergency Planning Arrangements FM-EM-05 The Environmental Damage (Prevention and Remediation) Regulations 2009 The Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009					0	* Comply with actions stated in GN-EM-34. 1. Stop work immediately and identify the source of the spillage. 2. Prevent further spillage if possible without endangering yourself. 3. Contain or limit the spill using absorbent materials from a spill kit or sand/ earth. 4. Protect sensitive areas such as rivers, ditches or surface water drains with bunds or drain covers. 5. The Environmental Emergency Planning Arrangements should be followed for major spillages or where the spillage is likely to enter a watercourse or surface water drainage system. 6. Bag up all material used to contain and clean up the spill and dispose of appropriately. Materials contaminated with hazardous substances such as oil must be disposed of as hazardous waste under the cover of a Consignment Note.	20, 34		0	0			
Floods	----					0	* Remove all liquids and materials from the flood zone, starting with those that are hazardous and/or destroyed by water. * If liquids or materials cannopt be removed, secure down to prevent them floating away/leaving site.	----		0	0			
Strong winds	----					0	* Secure down all materials, liquids and waste to prevent them blowing away/leaving site.	----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Remove as much fuel, material and plant as it is safe to do so and direct fire water to foul drains where possible.	----		0	0			

Project:

IMPACT - WATER

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Working in a watercourse (e.g. ditch, river, stream, etc).	Water Resources Act 1991 Land Drainage Act 1991	✓				0	* Discuss working method with Environment Agency. * Obtain appropriate consents as necessary (THIS MAY TAKE UP TO 4 MONTHS).	8		0	0			
Constructing an outfall into a watercourse (e.g. ditch, river, stream, etc).	Water Resources Act 1991					0	* Discuss working method with Environment Agency at an early stage of the project. * Ensure any drainage outfalls to surface water are approved by the Environment Agency.	----		0	0			
Temporarily discharging to controlled waters (e.g. ditch, stream, river, storm drain or groundwater).	Water Resources Act 1991					0	* Obtain temporary Trade Effluent Discharge Consent from the Environment Agency and comply with consent conditions (THIS MAY TAKE UP TO 4 MONTHS).	8, 46		0	0			
Temporarily discharging to sewer (e.g. foul drain).	Water Industry Act 1991					0	* Obtain temporary Trade Effluent Discharge Consent from the relevant Water Company and comply with consent conditions. * Ensure that no discharges are made to sewer other than domestic sewage (from sinks, showers and toilets) unless a Trade Effluent Consent has been obtained.	8, 46		0	0			
Constructing drainage	Water Industry Act 1991					0	* Keep a marked up Drainage Plan on site (red for foul, blue for surface water/storm). * Take care not to cross-connect foul and surface drains.	----		0	0			

Working near drainage	Water Industry Act 1991 Water Resources Act 1991					0	* Mark up drain covers as foul (red) or surface water/storm (blue). * Protect drains to prevent pollutants from entering drains.	8		0	0			
Storing and/or using environmentally hazardous liquids (e.g. fuel, oils, chemicals).	Control of Pollution (Oil Storage) (England) Regulations 2001 Water Resources Act 1991 Environmental Protection Act 1990 as amended by s.57 of the Environment Act 1995					0	* Show storage area on site plans. * Store in accordance with GN-EM-18. * Locate an appropriate spill kit in an accessible location. * Display GN-EM-17 and GN-EM-34 at all storage locations.	18		0	0			
Storing diesel or oil in bowsers/tanks or drums over 200 litres	Control of Pollution (Oil Storage) (England) Regulations 2002 Water Resources Act 1991 Environmental Protection Act 1990 as amended by s.57 of the Environment Act 1995 For further information refer to the Env Agency's Pollution Prevention Guidelines 2 - Above Ground Oil Storage Tanks.					0	* Store in accordance with GN-EM-18. * Locate on an impermeable surface atleast 10m from any watercourses and surface water drains. * Locate to avoid high traffic areas and to prevent vehicle impact. * Show storage area on site plans. * Locate an appropriate spill kit in an accessible location. * Display GN-EM-17 and GN-EM-34 at all storage locations.	18		0	0			
Fuel Delivery	----					0	* Comply with GN-EM-17. * Check that the refuelling equipment and bowser are in good working order, and repair as required. DO NOT PROCEED IF UNABLE TO REPAIR. * Check the current content of the bowser and adjust the delivery so that it doesn't exceed the spare capacity. * Use a drip tray, empty nozzle into bowser on completion and replace all caps.	17		0	0			

Refuelling Plant						0	* Ensure drip tray is used. * Locate an appropriate spill kit in close proximity. * Drain all fuel from nozzle into the plant, replace the nozzle within the fuel bowser and lock.	17		0	0			
Storing environmentally hazardous materials or waste (e.g. cement)	Environmental Protection Act 1990 as amended by s.57 of the Environment Act 1995 Water Resources Act 1991					0	* Keep contained. * Cover those that are made mobile by the addition of rainwater. * Do not store within 10m of a watercourse or drain.	5		0	0			
Concrete/mortar washout	Water Industry Act 1991 Water Resources Act 1991					0	* Identify and implement a designated, contained washout area atleast 10m from any watercourses or surface water drains. * Comply with actions and requirements stated in GN-EM-05. * If disposal of washout water is required, a) obtain temporary Trade Effluent Discharge Consent from sewerage undertaker to allow pumping of washout water down FOUL sewer, in accordance with consent conditions. b) have the washout water tankered away. Ensure collection of appropriate Waste Transfer Note for removal.	5		0	0			
Disposing of site run off	Water Industry Act 1991 Water Resources Act 1991					0	* Comply with actions and requirements of GN-EM-08 and GN-EM-46. * Treat silty site run off by passing through an APPROPRIATE silt removal system. * If disposal of run off water is required, a) obtain temporary Trade Effluent Discharge Consent from sewerage undertaker to allow pumping of run off water to FOUL sewer, in accordance with consent conditions.	8, 46		0	0			
Exposing ground and/or removing vegetation	----					0	* Avoid unnecessary stripping of topsoil. * Plan optimum timing for stripping - as late as possible. * Employ a road sweeper if necessary to clean surrounding roads.	----		0	0			

Stockpiling excavated material on site	Environmental Protection Act 1990					0	* Position stockpiles away from drains and control run off with ditches, settlement areas, etc. * For longer term storage of material, seed or cover stockpiles.	51		0	0			
Plant and/or wheel washing	----					0	* Wash in a designated area on hard standing ground at least 10m away from any watercourses and surface water drains. * If a hard landscaped area is not available, wash out into unsurfaced ground at least 10m from watercourses and surface water drains. * If possible, collect run off water, filter and re-use. * If disposal of run off wash water is required, a) obtain temporary Trade Effluent Discharge Consent from sewerage undertaker to allow disposal of wash water down FOUL sewer, in accordance with consent conditions. b) have the wash water tankered away. Ensure collection of appropriate Waste Transfer Note for removal.	8, 46		0	0			
Washing paint brushes, rollers, etc	Water Industry Act 1991					0	* Consider the use of a controlled cleaning system, such as Safety Kleen or Dulux solutions. * Do NOT allow washing into storm drains * Do NOT allow discharge of solvent based liquids down sinks or toilets. * For water based paints, wash in warm water and dispose of down a foul sewer. * For oil based paints and hazardous liquids, wash brushes in white spirit and dispose of white spirit as hazardous waste.	46		0	0			

Dewatering excavations	Water Resources Act 1991					0	* Speak to your Environmental Manager for advice before dewatering operations commence. * If water is to be disposed of solely to prevent interference with building works, water can be pumped to overground area. * If you intend to use the water from the dewatering operation (i.e. for dust suppression, pressure testing, etc) on site, you may need an abstraction licence.	46		0	0			
Dewatering service ducts						0	* Follow the Environment Agency's Pollution Prevention Guidance PPG 20 'Dewatering underground ducts and chambers'.	----		0	0			

ABNORMAL CONDITIONS														
Spillages	Ref: Environmental Emergency Planning Arrangements FM-EM-05 The Environmental Damage (Prevention and Remediation) Regulations 2009 The Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009 Water Resources Act 1991					0	* Comply with actions stated in GN-EM-34. 1. Stop work immediately and identify the source of the spillage. 2. Prevent further spillage if possible without endangering yourself. 3. Contain or limit the spill using absorbent materials from a spill kit or sand/ earth. 4. Protect sensitive areas such as rivers, ditches or surface water drains with bunds or drain covers. 5. The Environmental Emergency Planning Arrangements should be followed for major spillages or where the spillage is likely to enter a watercourse or surface water drainage system. 6. Bag up all material used to contain and clean up the spill and dispose of appropriately. Materials contaminated with hazardous substances such as oil must be disposed of as hazardous waste under the cover of a Consignment Note.	20, 34		0	0			
Floods	Water Resources Act 1991					0	* Remove all liquids and materials from the flood zone, starting with those that are hazardous and/or destroyed by water. * If liquids or materials cannopt be removed, secure down to prevent them floating away/leaving site.	----		0	0			
Strong winds	----					0	* Secure down all materials, liquids and waste to prevent them blowing away/leaving site.	----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Remove as much fuel, material and plant as it is safe to do so and direct fire water to foul drains where possible.	----		0	0			

Project:

IMPACT - EMISSIONS TO ATMOSPHERE

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Use of vehicles and plant on site	Non-Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulations 1999 (as amended 2008) Sulphur Content of Liquid Fuels (England and Wales) Regulations 2007 Road Vehicles (Construction and Use) Regulations 1986 (as amended)	✓				0	* Ensure all vehicles and plant on site have a current certification and are regularly serviced in accordance to WDG Safety Policy. * Ensure vehicles and plant are not left with their engines running when not is use.	----		0	0			
Removal, upgrading or servicing of air conditioning / refridgeration units or fire protection systems (which contain ozone depleting sustances - ODS).	Environmental Protection (Controls on Ozone-Depleting Substances) (Amendment) Regulations 2008 Environmental Protection (Controls on Ozone-Depleting Substances) (Qualifications) (Amendment) Regulations 2008 Environmental Protection Act 1990 Ozone-Depleting Substances (Qualifications) Regulations 2009 EU Regulation 842/2006 on certain fluorinated greenhouse gases Fluorinated Greenhouse Gases Regulations 2009					0	* Complete task in accordance with GN-EM-16. * Ensure thatqualified contractors recover, reuse ot dispose of ODS. * Practicable actions must be taken to prevent the escape of ODS.	16		0	0			
Use of solvent based products	----					0	* Ensure all containers containing volatile solvents, e.g. solvent-based adhesives, paint thinners, etc are kept closed unless in active use.	----		0	0			

All activities	Clean Air (Emission of Dark Smoke) (Exemption) Regulations 1969 Environmental Protection Act 1990					0	* NO materials or wastes must be burnt on any site. * Comply with BRE's Control of Dust from Construction and Demolition Activities.	----		0	0			

ABNORMAL CONDITIONS														
Spillages	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Comply with actions stated in GN-EM-34. 1. Stop work immediately and identify the source of the spillage. 2. Prevent further spillage if possible without endangering yourself. 3. Contain or limit the spill using absorbent materials from a spill kit or sand/ earth. 4. Protect sensitive areas such as rivers, ditches or surface water drains with bunds or drain covers. 5. The Environmental Emergency Planning Arrangements should be followed for major spillages or where the spillage is likely to enter a watercourse or surface water drainage system. 6. Bag up all material used to contain and clean up the spill and dispose of appropriately. Materials contaminated with hazardous substances such as oil must be disposed of as hazardous waste under the cover of a Consignment Note.	20, 34		0	0			
Floods	----					0	* Remove all liquids and materials from the flood zone, starting with those that are hazardous and/or destroyed by water. * If liquids or materials cannot be removed, secure down to prevent them floating away/leaving site.	----		0	0			
Strong winds	----					0	* Secure down all materials, liquids and waste to prevent them blowing away/leaving site.	----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Remove as much fuel, material and plant as it is safe to do so and direct fire water to foul drains where possible.	----		0	0			

Project:

IMPACT - NOISE AND VIBRATION

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Noise & Vibration, Traffic - Working close to neighbours	Environmental Protection Act 1990 Part III Control of Pollution Act 1974 Noise and Statutory Nuisance Act 1993	✓				0	* Distribute regular newsletters to neighbours advising them of the planned works and providing contact numbers, including the 24 hour emergency number. * Contact the LA Environmental Health/ Protection Officer prior to the start to commence proactive communications. * Recognise the neighbours' needs and plan works to accommodate these, e.g. school exam times. * Display the permitted working hours at the site entrance and stick to them.	4, 29, 30		0	0			
Noise & Vibration, Traffic - Working near schools and colleges	Environmental Protection Act 1991					0	* Restrict deliveries during peak times (e.g. during school pick up and drop off times). * Programme major lorry movements (e.g. muck shifts etc.) during school holidays. * Recognise the schools' needs and plan works to accommodate these, e.g. exam times.	4, 29, 30		0	0			
Noise & Vibration, Traffic - Working outside normal working hours, i.e. Mon: Friday 8.00 - 18.00 Saturday: 8.00 - 13.00	Control of Pollution Act 1974 Noise and Statutory Nuisance Act 1993					0	* Discuss the requirement for a Section 61 Notice with your Environmental Manager and obtain as appropriate.	4, 29, 30		0	0			

Noise & Vibration, Traffic - Vehicles travelling to site, including deliveries/ collections.	Road Vehicles (Construction and Use) Regulations 1986 (as amended)					0	* Plan timing of deliveries to avoid vehicles waiting. * Establish a designated holding area away from the site and call in vehicles when access is clear. * Have designated personnel on site to receive deliveries, direct vehicles on and off site, and act as a banksman. * Ensure delivery vehicle engines are turned off while waiting to be unloaded. * Ensure lorries carrying dust generating loads (e.g. spoil, aggregate) are sheeted. * Prepare and communicate a Traffic Management Plan detailing: - access routes - weight and width restrictions - parking controls - low head room access routes - accessibility for pedestrians - delivery time restrictions - public transport details - delivery routes to site from trunk roads	4, 30		0	0			
Noise & Vibration, Traffic - Carrying out particularly noisy/ disruptive activities, *e.g. driven/ vibration piling, lime stabilisation, Breaking out, Pneumatic drilling, Scabbling of concrete, Falling ball demolition, Disc cutting, Grit blasting, Hydro-demolition, Steel erection.*	Control of Pollution Act 1974 Noise and Statutory Nuisance Act 1993 Environmental Protection Act 1990 Part III					0	* Discuss the requirement for a Section 61 Notice with your Environmental Manager and obtain as appropriate. * Conduct condition surveys of existing properties and establish monitoring points. * Keep neighbours well informed via a newsletter. * Screen off activities where possible. * Monitor noise and vibration: - prior to the start record the ambient noise/ vibration levels - record the ambient noise/ vibration levels regularly during the works	4, 29, 30		0	0			
Noise - Using generators on site	Control of Pollution Act 1974 Noise Emission in the Environment by Equipment for Use Outdoors (Amendment) Regulations 2005 Environmental Protection Act 1990 Part III					0	* Switch to mains power asap. * Locate away from sensitive receptors where possible and screen off . * Use housed 'silenced' generators all the time/ during the night.	4, 30		0	0			

Noise & Vibration - Using plant on site	Control of Pollution Act 1974 Noise Emission in the Environment by Equipment for Use Outdoors (Amendment) Regulations 2005 Environmental Protection Act 1990 Part III Noise and Statutory Nuisance Act 1993					0	* Ensure all vehicles and plant on site have a current certification and are regularly serviced. * Ensure vehicles and plant are not left with their engines running when not in use. * Design site layout to minimise plant having to reverse (warning sirens). * Utilise rubber linings in beds of tipper lorries. * Prohibit works vehicles waiting or queuing on the public highway.	4, 29, 30		0	0			
Noise & Vibration - All construction activities	Control of Pollution Act 1974 Noise Emission in the Environment by Equipment for Use Outdoors (Amendment) Regulations 2005 Environmental Protection Act 1990 Part III Noise and Statutory Nuisance Act 1993 The Control of Noise (Codes of Practice for Con					0	* Eliminate the noise/ vibration source i.e. prefabricate off site, use alternative methods of construction, (e.g. CFA rather than driven or vibro piles; crushers rather than peckers etc). * Isolate the noise/ vibration source (e.g. position crushers away from sensitive receptors) * Control the noise/ vibration source (e.g. use acoustic covers, construct acoustic enclosures around large plant, erect screens, hoardings, bunds, or position storage containers to screen noise). * Restrict noisy activities to less sensitive time of the day * Address during site induction and deliver TBTs as required. (TBT No.4 - Noise & Vibration, TBT No.21 - Be a Good Neighbour)	4, 30		0	0			
Odour - Ground remediation with hydrocarbons or hydrogen sulphide	Environmental Protection Act 1990 Part III					0	* Bearing in mind proximity of neighbours consider utilising fine water sprays and fragrance neutralisers.	4, 30		0	0			
Odour - Working on live foul drainage systems.	Environmental Protection Act 1990 Part III					0	* Bearing in mind proximity of neighbours consider utilising fine water sprays and fragrance neutralisers.	4, 30		0	0			
Odour - Emptying septic tanks	Environmental Protection Act 1990 Part III					0	* Where very close to neighbours arrange emptying tanks during less sensitive times. (avoid meal times!)	4, 30		0	0			
Odour - Asphalt roofing & tanking	Environmental Protection Act 1990 Part III					0	* Where practicable locate boilers etc away from sensitive receptors.	4, 30		0	0			

Odour - Storing waste	Environmental Protection Act 1990 Part III					0	* Ensure timely disposal, especially during warm summer months.	4, 30		0	0			
Mud & Dust - Using Plant on site	Environmental Protection Act 1990 Part III					0	* Consider laying sub-base and base course as early as possible	4, 30		0	0			
Mud & Dust - Vehicles leaving site	Environmental Protection Act 1990 Part III					0	* Hard surface roads and vehicle movement areas. * Ensure vehicles adhere to the Traffic Management Plan and site speed limits. * Sweep site access roads regularly to minimise the build-up of dust. * Damp down roads and site areas with water, or other alternative products, when sites are dry. * Provide wheel washing facilities to avoid spread of mud on the road (ensure no discharge to drain or water course). * Employ a roadsweeper to clean surrounding roads.	4, 30		0	0			
Mud & Dust - Stockpiling	Environmental Protection Act 1990 Part III					0	* Locate stockpiles away from sensitive receptors such as neighbours, highways and public access. * Where dry material is stockpiled and subject to wind-whipping, ensure it is either sheeted, fenced, seeded or sprayed with water to minimise dust.	4, 30		0	0			
Mud & Dust - Demolition	Environmental Protection Act 1990 Part III					0	* Use water spraying during demolition activities to suppress dust. * Where demolition materials are to be crushed on site, obtain a copy of the mobile plant permit for the crusher and ensure that the permit conditions are adhered to. * Locate any crushing or screening plant on site away from any sensitive receptors.	4, 30		0	0			
Mud & Dust - Dusty activities, e.g. block cuttings	Environmental Protection Act 1990 Part III					0	* Ensure dust suppression systems are utilised at all times. * Locate away from dust sensitive receptors where possible. * Screen off.	4, 30		0	0			

Mud & Dust - Crushing, screening, Scabbling, plaining & cutting	Environmental Protection Act 1990 Part III					0	* Plant and equipment to be fitted with dust suppression equipment or water suppressant systems where required. * Locate mobile plant away from sensitive receptors e.g. residents, schools, hospitals etc.	4, 30		0	0			
Light- Temporary site lighting	Environmental Protection Act 1990 Part III					0	* Point lighting away from sensitive receptors such as neighbours and wildlife, preventing light from spilling onto adjacent properties. * Specify anti glare light fittings. * Turn off lights when not required.	4, 30		0	0			
ABNORMAL CONDITIONS															
Strong winds	----					0	* Be mindful of the distance that any noise will travel. * Increase frequency of dust suppression as detailed above.	----		0	0			
Floods	----					0	* Remove vehicles from site. * Identify access routes that are not flooded. * Arrange swift removal of any sewerage. * Following floods employ a roadsweeper to keep surrounding roads clean.	----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Move vehicles that could restrict emergency services vehicles. * Remove as much fuel, materials and plant as it is safe to do so.	----		0	0			

Project:

IMPACT - WASTE

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Use of Materials in Office operations	The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only)	✓				0	* Minimise waste generation through efficient use of materials, e.g. printing on both sides of paper. * Provide means of reuse, recycling and composting where practicable.	35		0	0			
Use of Materials in Construction	The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only)					0	* Store materials away from access routes in a safe, tidy and secure manner, with those susceptible to water damage under cover. * Follow 'Waste Management Options' in the project SWMP Data Sheet.	23, 35		0	0			
Demolition	Waste (England & Wales) Regulations 2011 The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only) Control of Asbestos Regulations 2006 Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended) Control of Substances Hazardous to Health (Amendment) Regulations 2004.					0	* Conduct a demolition audit to identify waste types suitable for reuse, recycling and energy recovery as well as those unsuitable for anything else other than disposal. (Quantities or Subcontractor Estimates used in pricing work). * Where known of or suspected, conduct an asbestos survey to determine types and likely amounts. * Appoint specialist contractors to remove any asbestos identified and / or other sensitive, potentially harmful substances.	35, 43, 44		0	0			

Asbestos removal	The Control of Asbestos Regulations 2006 Hazardous Waste (England and Wales) Regulations 2005 The Hazardous Waste (Wales) Regulations 2005 Hazardous Waste (England and Wales) (Amendment) Regulations 2009 The Hazardous Waste (Wales) (Amendment) Regulations 2009 The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only) Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended) Control of Substances Hazardous to Health (Amendment) Regulations 2004					0	* Ensure that asbestos regulations are strictly observed and that applicable monitoring is carried out. * Discuss with Health and Safety Manager, and Environmental Manager. * Employ a licensed asbestos removal firm. * Ensure that Hazardous Waste Consignment Note is obtained for waste transfer, stating registered Premises Code (from EA registration). * Ensure the asbestos is disposed of at a licensed asbestos disposal facility.	20, 35, 44		0	0			
Breakage of glass and damage to other materials	The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only)					0	* Ensure separate and secure storage of glass from other materials.	23		0	0			
Handling plasterboard waste	The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only) Environmental Permitting (England & Wales) Regulations 2010 Waste (England & Wales Regulations 2011 Landfill (England &Wales) Regulations 2002					0	* Remove all plasterboard in the strip out phase of the demolition process and store seperately in secure and dry conditions. * Store all plasterboard offcuts arising from construction activities seperately in secure and dry conditions. * Ensure that the Waste "Duty of Care" is adhered to in full in regard to storage, transfer and disposal.	35, 44		0	0			

Storage of hazardous wastes	Hazardous Waste (England and Wales) Regulations 2005 The Hazardous Waste (Wales) Regulations 2005 Hazardous Waste (England and Wales) (Amendment) Regulations 2009 The Hazardous Waste (Wales) (Amendment) Regulations 2009 The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only) Waste (England & Wales) Regulations 2011 Environmental Protection Act 1990 Part II Control of Substances Hazardous to Health (COSHH) Regulations 2002					0	* Register the site as a Producer of Hazardous Waste with the Env Agency. * Segregate hazardous waste from non hazardous waste. * Provide sound, secure storage containers on hard landscaped ground where possible. * Label all containers with correct waste types. * Separate hazardous waste types that may pose a H&S risk if mixed.	20, 44 35		0	0			
Storage of non hazardous wastes	Environmental Protection Act 1990 Part II The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only) Waste (England & Wales) Regulations 2011					0	* Provide sound, secure storage containers on hard landscaped ground where possible. * Label all containers with correct waste types. * Ensure that containers are not over filled and covered on removal from site.	35		0	0			
Waste compaction						0	* Ensure that containers are not over filled. * Ensure that materials to be compacted can undergo the process safely and without risk of damage to equipment.	35		0	0			

Inert material crushing (with a view to re-use on site)	Environmental Permitting (England and Wales) Regulations 2007 (SI 3538) The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only) *Ref:* *Local Authority Pollution Prevention and Control Scheme (LAPPC)* *WRAP Quality Protocol for the production of Inert Aggregates*					0	* Ensure that either a Permit Exemption or an Environmental Permit (determined by the amount to be crushed) is in place for the activity prior to its undertaking and that the conditions are adhered to. * Ensure that all hazardous materials and substances have been removed beforehand. * If the material to be crushed for reuse is asphalt, seek WAC testing of a sample to determine whether the material is suitable for reuse. * Ensure that the crusher is appropriately licensed with a Local Authority and that the conditions are adhered to. * If the amount to be crushed for reuse on site is 5000 tonnes or less, apply for a U1 Permit Exemption from the Environment Agency. Any other amount will require compliance with the respective WRAP Quality Protocol throughout aggregate production.	48, 54		0	0			
Inert material crushing (with a view to remove from site)	Environmental Permitting (England and Wales) Regulations 2007 (SI 3538) The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only) *Ref:* *Local Authority Pollution Prevention and Control Scheme (LAPPC)* *WRAP Quality Protocol for the production of Inert Aggregates*					0	* Explore opportunities for off site reuse of crushed material as far in advance of works as possible. * Ensure that either a Permit Exemption or an Environmental Permit (determined by the amount to be crushed) is in place for the activity prior to its undertaking and that the conditions are adhered to. * Ensure that the crusher is appropriately licensed with a Local Authority and that the conditions are adhered to. * Ensure that all hazardous materials and substances have been removed beforehand. * Ensure that the Waste "Duty of Care" is adhered to in full in regard to storage, transfer and disposal.	48, 54, 43, 44		0	0			

Reusing excavated material (on or off site)	Environmental Permitting (England and Wales) Regulations 2007 (SI 3538) The Environmental Permitting (England and Wales) Regulations 2010 The REACH Enforcement Regulations 2008, implementing; EC Regulation 1907/2006, on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)					0	* Determine whether the place of origin of the material to be excavated (the site) is on Greenfield or Brownfield Land. *Geotechnical Report for the project should confirm this.* * If Brownfield ascertain cost effectiveness of remediation. If worthwhile and amounts for reuse are 1000 tonnes or less, apply for the U1 Permit Exemption from the Environment Agency. Any other amount will require compliance with the CL:AIRE Code of Practice. Your Environmental Manager must be informed in any case. * Refer to and comply with GN-EM-51. * Discuss with Environmental Manager to ensure all required Permits and applications are obtained.	51, 52, 53, 55		0	0			
Disposal of wastes (This includes demolition and excavated material)	Environmental Protection (Duty of Care) Regulations 1991 (as amended) The Environmental Protection (Duty of Care) (Amendment) (England) Regulations 2003 Controlled Waste (Registration of Carriers ands Seizure of Vehicles) Regulations 1991 and the Control of Pollution (Amendment) Act 1989 Deregulation and Contracting Out Act 1994 Waste Management - the Duty of Care: a Code of Practice 1996 Clean Neighbourhoods and Environment Act 2005 List of Waste (England) Regulations 2005 and List of Wastes (Wales) Regulations 2005 Waste Management Licensing Regulations 1994 (as amended) Environmental Permitting (England and Wales) Regulations 2007 (SI 3538) Waste Electrical and Electronic Equipment (WEEE) Regulations 2006 (as amended) The Site Waste Management Plans (SWMP) Regulations 2008 SI 314 (England only) Environmental Protection Act 1990 Part II					0	* Ensure that opportunities for reuse on and off site have been considered beforehand. * Employ a licensed waste carrier and management centre that will optimise reuse, recycling and energy recovery opportunities. * Ensure that the Waste "Duty of Care" is adhered to in full in regard to storage, transfer and disposal. * Obtain a correctly completed Waste Transfer Note/ Consignment Note for transfers of non-haz./ haz. waste respectively. * Ensure that all Waste Transfer Notes and Hazardous Waste Consignment Notes are entered into site document FM-EM-09 of the Site Waste Management Plan. * Keep Waste Transfer Notes for a minimum of two years and Hazardous Waste Consignment Notes for a minimum of three years.	35, 42, 43, 44		0	0			

ABNORMAL CONDITIONS													
Spillages	Ref: Environmental Emergency Planning Arrangements FM-EM-05 The Environmental Damage (Prevention and Remediation) Regulations 2009 The Environmental Damage (Prevention and Remediation) (Wales) Regulations 2009					0	* Comply with actions stated in GN-EM-12. 1. Stop work immediately and identify the source of the spillage. 2. Prevent further spillage if possible without endangering yourself. 3. Contain or limit the spill using absorbent materials from a spill kit or sand/ earth. 4. Protect sensitive areas such as rivers, ditches or surface water drains with bunds or drain covers. 5. The Environmental Emergency Planning Arrangements should be followed for major spillages or where the spillage is likely to enter a watercourse or surface water drainage system. 6. Bag up all material used to contain and clean up the spill and dispose of appropriately. Materials contaminated with hazardous substances such as oil must be disposed of as hazardous waste under the cover of a Consignment Note.	20, 34		0	0			
Floods	----					0	* Remove as much waste as possible from site/flood zone, starting with those that are hazardous and/or destroyed by water.	----		0	0			
Strong winds	----					0	* Secure down all wastes to prevent them blowing away/leaving site.	----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Remove as much waste as it is safe to do so.	----		0	0			

Project:

IMPACT - BUSINESS TRANSPORT

Activity being carried out	Applicable Legislation	Control		Inherent Risk			Actions to be completed	Applicable Guidance Notes to reference	Residual Risk			Person Responsible	When applicable	Complete?
		Direct	Indirect	Likelihood	Consequence	Significance			Likelihood	Consequence	Significance			
Use of Resources	----	✓				0	* Where possible, choose preference to locally sourced resources (i.e. plant, materials and labour). * Engage subcontractors and suppliers in Willmott Dixon sustainable transport policies. * Where possible and design allows, use pre-fabrication methods in construction to minimise on the number of deliveries to site. * Devise plans that optimise resources used. * Maximise reuse of materials on site.	48		0	0			
Use of Transportation	Road Traffic Act 1991					0	* Devise a green travel plan. * Where possible, encourage the use of pedal bikes by providing suitable storage/bike stands. * Where practicable, choose public transportation over car use. * Maximise use of tele/video conferencing to avoid unnecessary journeys for meetings. * Ensure that journeys are planned so as to minimise distances travelled and number of vehicles used. * Do not drive at excessive speeds as doing so will increase fuel consumption and therefore CO2 emissions. * Ensure that tyres are inflated to the correct pressure and regularly checked so that fuel consumption is optimised.	----		0	0			
Use of Fuel						0	* Switch off all vehicles and plant when not in use. * Consider biofuel over fossil fuels. * Car share where practicable on business journeys. * Locate materials and stockpiles to avoid double handling.	----		0	0			

ABNORMAL CONDITIONS														
Floods	----					0	* Remove all liquids and materials from the flood zone, starting with those that are hazardous and/or destroyed by water. * If liquids or materials cannot be removed, secure down to prevent them floating away/leaving site.	----		0	0			
Strong winds	----					0	* Secure down all materials, liquids and waste to prevent them blowing away/leaving site.	----		0	0			
Fire	Ref: Environmental Emergency Planning Arrangements FM-EM-05					0	* Remove as much fuel, material and plant as it is safe to do so and direct fire water to foul drains where possible.	----		0	0			

	POTENTIAL IMPACT										
ENVIRONMENTAL RISK (Residual Risk, following mitigating actions)	**Design**	**Use of Resouces**	**Purchasing**	**Biodiversity**	**Archaeology & Heritage**	**Land**	**Water**	**Air**	**Nuisance**	**Waste**	**Business Transport**
High											
Medium											
Low											

Significance	**Action to be taken**
High (16-25)	Work can only continue if control measures reduce the risk rating to an acceptable level
Med (5-15)	Introduce control measures to reduce risk as low as reasonably practicable
Low (1-4)	Risk broadly acceptable, but situation needs to be monitored for changes and action to reduce risk

A2Dominion Group

NW Bicester Eco development Exemplar

Ecological Construction Method Statement

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A2Dominion Group

NW Bicester Eco development Exemplar

Ecological Construction Method Statement

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Date 17th December 2012

CONTENTS

1 INTRODUCTION

This document identifies the measures that will be required during site clearance and construction to ensure that habitats and species of nature conservation value are protected *in situ* or relocated, as appropriate, and a net gain in biodiversity is delivered. These measures are presented as Method Statements and include the following habitats and species:

- River Bure and tributary
- Reptiles
- Breeding birds (excluding barn owl)
- Barn owl
- Bats
- Badgers
- Brown hares
- Hedgehogs

A Method Statement detailing the protection measures for retained hedgerows and hedgerows to be translocated have not been included within this document, as measures required to protect trees and hedgerows will be provided in the Tree Protection Plan that will be produced in order to meet the requirements of Planning Condition Number 75 and its sub-clauses. In addition the requirement to fence the hedgerows prior to construction is set out in Planning Condition 75 of the Decision Notice. However, measures to protect the fauna associated with the hedgerows and trees (for example, nesting birds and hedgehogs) have been included within this document.

2 METHOD STATEMENTS

2.1 River Bure and Tributary

2.1.1 Aims and Objectives

The River Bure and tributary is considered to be of 'District/Borough' nature conservation value. It is located within the Infrastructure Phase and Phases 1 and 2 of the proposed development. There is potential for construction works to have an adverse effect on this ecological receptor.

The aim throughout the construction of the development is to prevent any adverse impacts on this ecological receptor and the species that the River Bure and tributary supports. This section of the method statement aims to meet the stipulations of Condition 83 attached to the planning decision notice.

2.1.2 Scope of Works

Prior to the commencement of site clearance activities, pre-construction water quality monitoring of the River Bure and tributary will be collected from three points: two upstream of construction activities; and one downstream of the proposed Exemplar Site development after the River Bure and its tributary have converged. This will ensure a baseline for measuring biological water quality is provided against which both during- and post-construction monitoring can be compared. Water quality will be monitored in an annual basis at the same time of year in order to compare the monitoring results with the baseline data. Samples will be collected throughout

the construction phase where there is the potential for runoff to affect the watercourse; it is not envisaged that water quality monitoring will be required for the final phase of development (development in the north-western field) since there are no direct link between this field and the watercourse. However, a sample will be taken during that phase to provide the final post-construction sample. The results will be provided to A2 Dominion and the Environmental Manager, they will be available for inspection as part of the records that will be maintained by the Environmental Manager.

A pre-construction mammal survey will also be undertaken along the River Bure and tributary to confirm the presence/absence of any additional badger setts which have been created since the initial field surveys, and/or any potential otter holts/resting sites and/or water vole burrows which could constrain construction works along the River Bure and its tributary [Note that neither otter nor water vole were recorded on the site previously and a survey undertaken in September 2012 confirmed their continued absence].

The River Bure and tributary will be protected from site clearance and construction works through the establishment of a protective fence [Note the requirement for fencing is stipulated in Planning Condition number 73 of the Decision Notice]. This fence will ensure a buffer zone of at least 10m is established from the River Bure and tributary and any construction works. Once the recontouring works close to the river corridors are complete this fence will be moved to incorporate the circa 60m-wide corridors that have been retained within the Masterplan to ensure that they are protected from construction works. This is to protect the water quality of the watercourses and to minimise physical damage and visual or noise disturbance to any species that may be present along these watercourses. Construction site drainage will also be carefully designed and controlled to prevent polluted surface water run-off from entering the watercourse (as detailed in the methodology below).

Night-time construction lighting is not proposed for the Exemplar Site, but should it be necessary it will be kept away from the River Bure and tributary corridor.

Landscape planting will also be established along the River Bure and tributary corridor as part of the Infrastructure Phase to ensure a natural buffer from the development is provided early in the construction programme.

2.1.3 Methodology

The methodology for the water quality sampling and analysis is presented in Appendix 1 of this document.

A high visibility temporary protective fence (at least 1.25m in height) will be installed on the construction side of the River Bure and tributary, around retained habitats, prior to any site clearance activities in accordance with the requirements of Planning Condition number 73 of the Decision Notice. This fence will protect the circa 60m-wide corridors of semi-natural vegetation associated with the River Bure and tributary, and include the 50m buffer around the badger sett adjacent to the tributary (see Section 2.6 Badgers below). A gap beneath the fencing will ensure that the habitats are protected from machinery and personnel but allow badgers to move freely across the site.

During the Infrastructure Phase, a road will be constructed over both the River Bure and its tributary. Sustainable Drainage Systems (SuDS) features will also be installed at this early stage. To prevent sediment and pollution run-off to the watercourses, construction site drainage will be carefully designed and controlled, with silt traps established at the outset of the works. All works will incorporate relevant legislation for the protection of surface and groundwater and implement codes of good practice, and best practice guidelines for works within or near water. Relevant guidance including Pollution Prevention Guidelines (PPGs) prepared by the

Environment Agency and literature produced by CIRIA would form the basis for pollution control measures. The protective measures will be provided in the Construction Environmental Management Plan that will be produced in accordance with Planning Condition number 54 of the Decision Notice.

Once the remodelling earthworks have been completed, no excavations or site works shall take place, and no soil, waste, materials or equipment shall be located within the buffer zone throughout construction (other than continued landscaping works to the river corridor as part of the habitat and landscape plans).

All temporary protective fencing will be removed following completion of the construction Phases 1 and 2, since neither Phase 3 nor 4 will directly affect the river corridors.

To prevent pollution during construction, the following measures will be applied:

- Drainage water from the site will not be allowed to discharge into the River Bure and tributary before appropriate treatment
- Settlement control systems will be used to remove sediment from drainage water before any discharge into the watercourses
- Any fuel tanks will be kept in a bunded area with a storage capacity of 110% and away from waterbodies
- Refuelling will take place in designated areas away from the newly created waterbodies and retained and newly created watercourses
- Suitable spill kits will be available on site and all staff will be trained in their use
- Any pumping of water will be stopped as soon as there is a pollution spill that could affect the quality of discharge
- All oil spills will be cleared up immediately and the Environment Agency informed
- Emergency procedures will be put in place to deal with pollution incidents. In the event of spillage, works will be ceased immediately, containment measures implemented and the appropriate services notified. A list of contact names and numbers of services will be prepared before works commence
- Reminder posters will be used on site to identify the key essential elements of the spill response procedure and spill kits will be kept where spills may occur
- Toolbox talks will be provided to contractors and sub-contractors to raise the awareness of the ecological receptors on site

2.1.4 Responsibilities

A suitably experienced ecologist will be responsible for undertaking the pre-construction biological water quality and mammal surveys. A suitably qualified ecologist will be responsible for undertaking the repeat water quality monitoring on an annual basis during construction. The Environmental Manager will be responsible for ensuring that water quality within the watercourses is protected throughout the construction phase and that the Contractor adheres to measures to protect water quality outlined in the Construction Environmental Management Plan. The Contractor will be responsible for marking out the temporary protective fencing route and the fence installation. The ecologist will oversee these works to ensure that the stream corridors, badger sett and known bat roost are protected. Only once the results of the pre-construction surveys have been obtained, and any corrective measures arising from these surveys, and the fencing installation has taken place will the ecologist sign off the works enabling construction activities to commence.

The Contractor will be responsible for implementing measures to prevent pollution of the River Bure and tributary during construction of the development.

2.1.5 Monitoring and Reporting

The protective fence will be inspected by the Environmental Manager at least every fortnight during construction to ensure that it remains in good working order. Should the fence require repair or replacement during construction, the Environmental Manager will be responsible for liaising with the Contractor to ensure this is carried out within two days of a fault being identified.

The Contractor will be responsible for removing all temporary protective fencing following completion of the construction phase, and for rectifying any damage or disturbance.

2.2 Reptiles

2.2.1 Aims and Objectives

Small numbers of common lizards and a single grass snake were recorded outside the Exemplar site during field surveys that were undertaken to inform the Environmental Impact Assessment (i.e. a low population of both species). Reptiles could utilise the boundary features within the Exemplar site, and were considered to be of 'Parish/Neighbourhood' nature conservation value. All reptiles are protected from killing or injuring under the Wildlife and Countryside Act, 1981 (as amended); therefore measures will be taken to avoid their incidental mortality during the removal of vegetation.

The aim throughout the construction of the development is to avoid the killing or injuring of reptiles. This section of the method statement also aims to meet the stipulations of Condition 83 attached to the planning decision notice.

2.2.2 Scope of works

The most suitable habitat within the Exemplar for use by reptiles is the areas of taller grassland associated with the hedgerows, the small plantation that is within the proposed school site, and along the River Bure and tributary. Thus, this reptile Method Statement could apply to all Phases of the proposed development, where hedgerow removal is required (Phases 1 to 4), when the school site is cleared (Infrastructure Phase), or where works affect the River Bure and tributary (i.e. Infrastructure Phase).

As hedgerow removal will ideally take place during the autumn/winter, when reptiles will be entering into or be within their hibernating period (typically between the beginning October and early-April), measures will need to be taken to ensure reptiles are not located within the footprint of the hedgerows to be removed.

The proposed method for both the affected hedgerows, the plantation within the school site, and the areas of River Bure and tributary to be crossed by the development will involve habitat manipulation during the period when reptiles are active (April to September, inclusive). Detailed methodology is included below.

2.2.3 Methodology

Toolbox talks will be provided to contractors and sub-contractors by an ecologist in advance of works to raise the awareness of the potential presence of reptiles on site.

The area containing the hedgerows to be translocated, the plantation and the river crossings will be assessed for their suitability for use by reptiles by an experienced ecologist. If suitable habitat for reptiles is present then habitat manipulation techniques will be employed to displace any reptiles present into nearby retained areas of suitable habitat. This will involve the sequential cutting of vegetation using strimmers and other mechanical tools. Vegetation will first be cut to a height of 150mm with arisings raked off by hand, then left for at least 24 hours before a second cut to approximately 50mm is completed. The arisings will then be raked off again, with a further delay of 24 hours prior to site clearance/ground disturbance. This technique works by reducing the suitability of the habitat for reptiles, thus encouraging them to leave the cut areas.

Weather conditions between the first and second cuts, and between the second cut and site clearance, will need to be sufficiently warm for reptiles to be active. Therefore, these works will need to be timed to coincide with appropriate weather conditions.

Any reptiles captured during this exercise will be moved to suitable long-grass habitat beyond the construction site boundary. This will be the tall grassland associated with the tributary of the River Bure, which will be within the same range of the known small reptile population and therefore will not be detrimental to the individuals moved.

Following the displacement and relocation of any reptiles encountered, destructive searches will be undertaken, as appropriate; to further avoid the incidental mortality of individual animals. Any features suitable for use by hibernating reptiles will be hand-search and removed following which a mechanical excavator, or similar, will gradually scrape away any remaining vegetation, other refuges, and topsoil. The mechanical excavator will be fitted with a toothed bucket and would be overseen by an appropriately experienced ecologist. Any reptiles found through this process should be relocated to suitable habitats outside the affected area (adjacent retained habitat).

2.2.4 Responsibilities

A suitably experienced ecologist will be responsible for assessing the suitability of the affected habitat for reptiles. They will be responsible for overseeing the habitat manipulation and relocation. Any destructive searches required will also be overseen by the ecologist. The ecologist will be responsible for confirming when areas are clear of reptile constraints.

The Client/Contractor will be responsible for the strimming, raking and use of an excavator (as necessary).

2.2.5 Monitoring and Reporting

The ecologist will maintain records of any reptiles found and for confirming the absence of reptiles from affected areas.

2.3 Breeding birds (excluding barn owls)

2.3.1 Aims and Objectives

Breeding birds (excluding barn owls) are considered to be of ‘Parish/Neighbourhood’ nature conservation value. It is an offence under Section 1 of the Wildlife and Countryside Act of 1981 (as amended) to intentionally take, damage or destroy the nest of any wild bird while it is in use or being built. Therefore, the removal of suitable habitats, such as hedgerows, within the breeding bird season could result in an offence.

The purpose of this section of the method statement is to guide works to ensure that they avoid impacts on nesting birds and take place within both the legislation relating to the protection of birds under the Wildlife and Countryside Act 1981 (as amended) and best practice guidance. This section of the method statement aims to meet the stipulations of Condition 83 attached to the planning decision notice.

2.3.2 Scope of works

The majority of site clearance operations, including the translocation of hedgerows will be undertaken outside of the main breeding bird season to minimise the likelihood of impacts on nesting birds. However topsoil stripping and land re-profiling could take place at any time year, including the breeding bird season, and therefore has the potential to disturb nesting birds using adjacent habitats.

To mitigate for potential impacts on nesting birds, hedgerow translocation and tree removal will be timed to avoid the breeding bird season, and all hedgerows will be retained with suitable buffer zones. The buffer zones would be fenced, as required by Planning Condition number 74 of the Decision Notice, thus ensuring that the hedgerows (and any associated nesting birds) are protected during construction and site clearance.

In advance of hedgerow removal, bird nesting boxes will be installed on retained trees and hedgerows, in suitable locations away from the construction works to increase the availability of undisturbed nest sites. The approximate box locations are shown on the plan produced to discharge Planning Condition 82, with the fine details to be informed by the ecologist on site.

2.3.3 Methodology

A high visibility temporary protective fence, suitable for use in high risk areas, will be installed around retained hedgerows prior to any site clearance activities, in accordance with Planning Conditions 74 and 75 of the Decision Notice. The fence will ensure that the hedgerows, and any birds that choose to nest in these features during construction, are protected. Toolbox talks will also be provided to contractors and sub-contractors by an ecologist in advance of works to raise the awareness of nesting birds on site. A gap beneath the fencing will ensure that the habitats are protected from machinery and personnel but allow badgers to move freely across the site.

No excavations or site works shall take place, and no soil, waste, materials or equipment shall be located within the buffer zone of the hedgerows throughout construction. Haul routes and storage/staff facilities will be located away from retained hedgerows. Any night-time lighting will also be kept away from retained hedgerows and will be limited only to those areas where it is absolutely necessary.

The hedgerow translocation operation will be undertaken outside of the bird breeding season (i.e. between the months of September and February, inclusive). If it is deemed necessary to remove suitable bird nesting vegetation within the breeding bird season, specialist ecological supervision will be required to confirm the absence of nesting birds prior to the translocation/vegetation clearance, and ensure the protection of any confirmed nesting sites.

A nesting bird inspection will be undertaken by a suitably experienced ecologist prior to all site clearance operations commencing in all parts of the site, wherever birds may be nesting and when removal is timed for the breeding bird season (considered to be between mid February and the end of August). In the first instance, an assessment will be made by a suitably experienced ecologist to determine whether or not the vegetation to be affected is suitable. If it is considered suitable an inspection for nesting birds will be undertaken. The inspection will

comprise either a physical search of the vegetation for nests and/or observing areas of less accessible habitat for at least 30 minutes for characteristic breeding bird activity (such as nest building or feeding young). Any inspection which has confirmed the absence of nesting birds will only be valid for 48 hours following the survey during the breeding bird season; thus any vegetation deemed 'clear' of nesting birds will be removed in this period or it will require a further inspection.

Should nesting birds be present in an area affected by the works, the location of the nest will be identified and the stage of breeding determined (i.e. eggs, hatchlings etc) to give an indication of the likely end date for breeding activity. The nest and a buffer zone around it will be retained until the end of breeding activity, and this area identified using marker tape (it will be important not to mark the location of the nest itself, as this will increase the risk of predation and may cause the nest to be abandoned). The size of the buffer zone will be determined by a suitably experienced ecologist and will be dependent upon the species present, the location of the nest, and the structure of the vegetation. The end of breeding will need to be confirmed by a suitably experienced ecologist before the nest and buffer zone can be removed.

Any arisings generated from vegetation clearance could provide suitable nesting bird habitat and will therefore need to be removed from site or chipped within 48 hours of felling/removal or stock-piled in areas which will not be affected by the works.

2.3.4 Responsibilities

The protective fence will be inspected by the Environmental Manager at least every fortnight during construction to ensure that it remains in good working order. Should the fence require repair or replacement during construction, the Environmental Manager will be responsible for liaising with the Contractor to ensure this is carried out within two days of a fault being identified. The ecologist will be responsible for inspecting vegetation, identifying nests and confirming once breeding is complete.

The Contractor will be responsible for installing the protective fencing around hedgerows and removing it following completion of the construction phase. The Contractor is also responsible for vegetation removal and for rectifying any damage or disturbance.

2.3.5 Monitoring and Reporting

The ecologist will monitor any identified nests and maintain a record of any such nests, and only sign off the vegetation clearance in that identified area once the nest is no longer occupied.

2.4 Barn owls

2.4.1 Aims and Objectives

Barn owls have been recorded breeding within a nest box outside of the Exemplar site in the recent past (nest box a few hundred metres from the Exemplar site boundary), and several suitable nesting sites for this species in the form of nest boxes have been installed both within the Exemplar site and in adjacent habitat. Barn owls and their nest sites are protected under the Wildlife and Countryside Act 1981 (as amended). As such it is an offence to kill, injure or take a barn owl or to take or destroy its eggs. It is also an offence to disturb a barn owl while it is at or near a breeding site. The value of the study area (including the Exemplar site) within the EIA for the development was classified as being of 'District/Borough' nature conservation value.

The Exemplar site was not found to support nesting barn owls nor was the habitat of particular value for foraging barn owls due to the absence of rough grassland. However, it was considered that there was the potential to disturb barn owls nesting outside of the site during construction.

The aim throughout the construction of the development is to prevent any adverse impacts on barn owls. This section of the method statement aims to meet the stipulations of Condition 83 attached to the planning decision notice.

2.4.2 Scope of works

Prior to the commencement of works, an inspection of the two existing owl nest boxes will be undertaken.

The barn owl nest boxes within and in close proximity to the Exemplar site will be relocated to trees further away from the proposed construction site. This will ensure that barn owls can nest undisturbed in the locality. Where the nest boxes cannot be removed they will be made unsuitable for use and new boxes will be provided.

2.4.3 Methodology

The two nest boxes (including one previously known to support nesting barn owls) will be relocated outside of the barn owl nesting period, i.e. between September and February. Prior to the relocation a suitably experienced and licensed ecologist will confirm the absence of barn owls from the boxes by climbing inspection.

Once barn owls have been confirmed as being absent from the boxes, they will be immediately relocated to a suitable prominent tree outside the proposed development area. The selected location will be adjacent to existing woodland and open fields, in close proximity to the former nesting location. Ideally the movement of nest boxes will take place at least 30 days before the commencement of the breeding season (taken to be 1st March) to allow barn owls to find the new boxes.

Should it be found that the existing boxes are no longer suitable for use by barn owls or if they cannot be removed from the tree, then additional nest boxes will be provided. As described previously, these nest boxes will be located outside the development area in suitable habitat. If the boxes within and adjacent to the Exemplar site cannot be removed but remain suitable, then they will be made unsuitable through the removal of the roof of the box. All of these works will take place once it has been confirmed that owls are absent from the boxes.

2.4.4 Responsibilities

A suitably experienced, licensed ecologist will be responsible for confirming the presence/absence of barn owls from the existing nest boxes, and for issuing the go-ahead for the boxes to be removed. The licensed ecologist will also oversee the relocation of nest boxes and recommend the location for the installation of the relocated/new boxes.

The Contractor will be responsible for relocating the existing boxes or installing new boxes, as necessary, overseen by the licensed ecologist.

2.4.5 Monitoring and Reporting

A suitably experienced, licensed ecologist will be responsible for monitoring the use of the existing and replacement nest boxes. The results of the inspections will be issued with their Natural England licence return.

2.5 Bats

2.5.1 Aims and Objectives

The Exemplar site was found to support a small common pipistrelle bat roost within a bat box located on a mature Poplar tree along the River Bure (NB. this was reported to be located on a willow tree within the ES but has subsequently been identified as a poplar tree). Bat activity surveys revealed that the River Bure and tributary were also the main habitats used by foraging and commuting bats, with small numbers also using the hedgerow that forms the eastern boundary in the northern part of the proposed development. Overall, the site is considered to be of 'District/Borough' value for bats. All bats are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010.

The aim throughout the construction of the development is to prevent any adverse impacts on bats. This section of the method statement aims to meet the stipulations of Condition 83 attached to the planning decision notice.

2.5.2 Scope of works

The known bat roost will be retained and protected within the corridor of vegetation associated with the River Bure. To avoid disturbing any bats using this roost site during construction, and to allow bats to continue to forage along the River Bure and tributary and the hedgerows, protective measures will be provided including: the provision of buffer fencing around retained habitats of value to bats (including trees, hedgerows and the river corridor); and the avoidance of lighting during construction in these areas.

Additional woodland planting will be provided along the River Bure and tributary to provide further suitable foraging and commuting habitat for bats in the long term. As a further enhancement and to increase the available roosting sites for bats, 40 bat boxes will be provided on mature trees and/or buildings in suitable locations throughout the Exemplar site. The location of these bat boxes is shown on a separate plan that has been produced in response to Planning Condition number 82 of the decision notice.

2.5.3 Methodology

High visibility temporary protective fencing will be installed around the retained habitats along the River Bure and tributary, including the tree containing the known bat roost, prior to any site clearance activities (in accordance with the requirements of Planning Conditions 73, 74 and 75 of the Decision Notice). This fence will be at least 10m from the known bat roost. No excavations or site works shall take place, and no soil, waste, materials or equipment shall be located within this buffer zone throughout construction. The temporary protective fencing will be removed following completion of the construction phase.

Night-time lighting is not proposed during the construction of the Exemplar site. If it should be deemed necessary it will be kept away from the confirmed bat roost and the watercourses, and will be limited only to those areas where it is absolutely necessary. Toolbox talks will be

provided to contractors and sub-contractors by an ecologist to raise the awareness of bats on site and to provide information on the avoidance of lighting.

Forty bat boxes will be provided on mature trees and buildings in suitable locations throughout the proposed development, thus providing increased roosting opportunities in the long term.

2.5.4 Responsibilities

The bat ecologist will also be responsible for liaising with contractors and overseeing the fence installation (if considered necessary). Only once the fencing installation has taken place will the ecologist sign off the works so construction activities can commence.

The ecologist will also be responsible for specifying the location of the additional bat boxes to be installed on mature trees.

The Contractor will be responsible for installing the protective fencing and the bat boxes. The Contractor will also be responsible for removing all temporary protective fencing following completion of the construction phase, and for rectifying any damage or disturbance.

2.5.5 Monitoring and Reporting

The protective fence will be periodically inspected during construction to ensure that it remains in good working order. Should the fence require repair or replacement during construction, the ecologist will liaise with the Client and their Contractors to ensure this is carried out.

2.6 Badgers

2.6.1 Aims and Objectives

A large (possible main) badger sett is located adjacent to the tributary of the River Bure and an 'outlying' sett was found along the banks of the River Bure in 2010. Subsequent surveys undertaken in March and September 2012 confirmed that the large sett remains in use. The outlying sett has not been refound and it appears that there is no longer an active sett at that location. The large sett is located within the Infrastructure Phase and Phase 2 of the Exemplar site development. A further large sett was located in woodland approximately 200m from the proposed development boundary at its closest point; however, this will be unaffected by the development.

Badgers and their setts are protected by law through the Protection of Badgers Act 1992, which makes it illegal to kill, injure or take badgers or to interfere with a badger sett. Therefore, the aim throughout the construction of the Exemplar site is to prevent any adverse impacts on badgers, their setts and the retained areas of their foraging habitat. This section of the method statement aims to meet the stipulations of Condition 83 attached to the planning decision notice.

2.6.2 Scope of works

The design of the Exemplar site includes for the retention of the large badger sett. This sett will be protected during construction through the use of temporary protective fencing to prevent construction machinery or staff from damaging the setts. A gap beneath the fencing will ensure that the habitats are protected from machinery and personnel but allow badgers to move freely across the site.

Any works close to this sett will be carried out under close ecological supervision to ensure disturbance to badgers is avoided. Badgers will continue to be able to access suitable foraging habitat throughout the construction works and post-development.

2.6.3 Methodology

Prior to any site clearance/construction works, a pre-construction mammal survey will be undertaken by a suitably experienced ecologist. This will be undertaken in advance of each phase of the development. The survey will include a comprehensive search of the area to be affected by the site clearance/construction works plus a buffer of 50m. The aim will be to identify any new badger setts which have been created since the initial surveys in 2010 and also assess the current status of the known badger setts. All setts (existing or new setts) will be monitored by the ecologist in advance of construction works to establish whether the setts are currently occupied by badgers.

Prior to any works in the vicinity of the known badger sett a hi-visibility protective fence will be installed between proposed works and the sett entrances. The fence will be installed at a distance of 50m from the closest entrance to the sett and any site clearance/construction works. The fence will protect the sett from accidental damage and destruction by being clearly marked out for the duration of works being undertaken in the proposed development. It will be installed prior to the Infrastructure Phase and will remain until the completion of Phase 2, or the development of the School Site (whichever lasts longer).

The works to construct the road bridge over the River Bure tributary have the potential to cause disturbance to badgers using the sett. Consequently, these works will be subject to close supervision of an appropriately experienced, and if appropriate licensed, ecologist, ideally these works will be timed to take place outside of the badger breeding season, the period when badgers are most sensitive to disturbance (i.e. works will take place between July and November, inclusive). The installation of the bridge over the tributary to the River Bure will also be undertaken using the most sensitive methodologies possible to avoid potential damage to the nearby badger sett to avoid disturbing any badgers present, for example, it will be necessary to avoid particular piling techniques that could cause vibration and have the potential to cause damage to sett tunnels. The ecologist will monitor the sett whilst works take place in the vicinity of the sett.

Any other badger setts found during the pre-construction mammal survey will be assessed by the ecologist and the need for a licence and/or protective fencing determined.

Any man-made excavations that are left open overnight will either be covered (if sufficiently small) or be provided with a ramp of either wood or soil to ensure any mammals (badgers in particular) do not become trapped within the excavations overnight.

Prior to any works that could affect badgers, toolbox talks will be provided to contractors and sub-contractors by an ecologist to raise the awareness of badgers and the sett on site. Badgers will be able to gain access to suitable foraging habitat within the Exemplar site and off-site for the duration of the site clearance and construction works. The fencing required to protect the retained habitats will ensure that their value to foraging badgers is maintained.

2.6.4 Responsibilities

A suitably experienced ecologist will be responsible for the pre-construction survey and sett monitoring. They will be responsible for determining the location of the protective fencing. Only once the ecologist has confirmed that the fence has been installed in the correct location can construction activities commence.

The Contractor will be responsible for installing and removing the temporary protective fencing, and for rectifying any damage or disturbance.

2.6.5 Monitoring and Reporting

The ecologist will monitor all badger setts identified, as necessary. The protective fence will be inspected by the Environmental Manager at least every fortnight during construction to ensure that it remains in good working order. Should the fence require repair or replacement during construction, the Environmental Manager will be responsible for liaising with the contractor to ensure this is carried out within two days of a fault being identified.

2.7 Brown hares

2.7.1 Aims and Objectives

Brown hares have not been recorded within the Exemplar site and the habitats within the site, in particular the cattle-grazed pastures, are unlikely to provide sufficient habitat for brown hares. However, they have been recorded in the wider NW Bicester Eco development area and it is considered that they could make use of the site on occasion, in particular when fields are in hay/arable production. Overall the Exemplar site is considered to be of no more than 'Parish/Neighbourhood' value for brown hares.

The aim of this section of the method statement is to ensure no brown hares are harmed during site clearance/construction activities.

2.7.2 Scope of works

The timing of topsoil stripping of fields will aim to avoid the time when brown hares would have dependent young (considered to be between March and July, but potentially as early as February and as late as August/September). Where this is not possible, checks will be made by a suitably experienced ecologist of the fields prior to topsoil stripping for the presence of brown hares.

2.7.3 Methodology

Toolbox talks will be provided to contractors and sub-contractors by an ecologist in advance of works to raise the awareness of the potential presence of hares on site.

The vegetation clearance/topsoil stripping will be timed, as far as possible, to avoid the period when hares are likely to have dependent young present (between March and August). If ground clearance works are unavoidable within this period, checks will be made by the ecologist for brown hares prior to undertaking ground clearance works. The check will involve the walking of transects through the field(s) scanning for any brown hares. Should any brown hare forms (nest sites) be identified or suspected, their location(s) will be marked with a suitable buffer zone established (this will be determined by an ecologist on site at the time) through the installation of high visibility tape. Construction activity will be prevented within the buffer zone until the ecologist confirms brown hares are no longer present.

2.7.4 Responsibilities

The ecologist will be responsible for the checking the fields for brown hares and confirming the area that is clear for ground clearance works to proceed.

2.7.5 Monitoring and Reporting

The ecologist will monitor any brown hares present, if necessary.

2.8 Hedgehogs

2.8.1 Aims and Objectives

It is considered possible that hedgehogs make use of habitats within the Exemplar site although this has not been confirmed. The most suitable habitat for this species is considered to be the areas of tall grassland associated with the hedgerows; therefore, the removal of hedgerows has the potential to harm hedgehogs, should they be present. The aim throughout the construction of the development is therefore to prevent harm to hedgehogs.

2.8.2 Scope of works

To avoid harm to hedgehogs, a search of the hedgerows to be translocated will be undertaken by an experienced ecologist.

2.8.3 Methodology

Toolbox talks will be provided to contractors and sub-contractors by an ecologist in advance of works affecting suitable hedgehog habitat to raise the awareness of the potential presence of hedgehogs on site.

A suitably experienced ecologist will undertake hand searches for hedgehogs in the vegetation adjacent to, and at the base of, the hedgerows scheduled for removal/translocation. The search will take place immediately prior to hedgerow removal operations. Should a hedgehog be found during the search, it would be moved to a place of safety. This could be the undisturbed field boundaries within the Exemplar site or the hedgerows or woodland adjacent to the site.

2.8.4 Responsibilities

The ecologist will be responsible for searching the hedgerows and for confirming when the hedgerows can be removed.

The Contractor will be responsible for hedgerow removal following confirmation from the ecologist.

2.8.5 Monitoring and Reporting

The ecologist will confirm to the Contractor when the hedgerows can be removed.

3 CONCLUSION

The method statements provided in this document will ensure that there would be no net loss of biodiversity as a result of the NW Bicester Eco development Exemplar and that as the landscape planting associated with the proposals matures a net gain in biodiversity will be achieved.

Appendix 1

Water sampling methodology

Water sampling

Background and timing

Baseline surveys revealed that within the Exemplar site the River Bure and its tributary do not contain water throughout the year. In particular the stream beds were dry for most of spring and summer 2010. Consequently, the aquatic invertebrate surveys that were undertaken to inform the impact assessment were undertaken in October 2010. It is therefore considered appropriate that the water quality monitoring surveys that will be undertaken to monitor the effects of construction will be undertaken on an annual basis in October. The pre-construction survey was undertaken in October 2012, further surveys to monitor the effects of construction on water quality will be undertaken on an annual basis throughout the construction programme. It should be noted that the final phase of development will occur within the north-western field. There are no direct or links between this field and the watercourses, thus it is not anticipated that this phase of the development would have any effect on water quality. It is therefore considered that the sample taken during this phase of the development would provide a post-construction sample.

Protocol

At each sampling station water will be sampled using the standard protocol employed by the Environment Agency for sampling lotic watercourses (detailed in Environment Agency internal document No. 018_08, which has now replaced the more detailed BT001 (Murray-Bligh, 1999)). This protocol involves a timed period of three minutes of active net sampling (the time being apportioned to each habitat according to the proportion of the site that it covers), accompanied by a one minute search.

The net sampling will be carried out using a FBA pattern pond net, fitted with a 1mm mesh collecting bag and involved a combination of kick sampling and sweeping the net through the water channel. This will be accompanied by manual investigation of submerged coarse woody debris and larger stones for attached organisms (e.g. the river limpet (*Ancylus fluviatilis*)) and searches of the water surface for surface-dwelling animals (e.g. pond skaters (*Gerris spp.*)), for a timed period of one minute in total at each site.

After collection, the samples will be preserved on-site, in a solution of 90% Industrial Methylated Spirits (IMS or Denatured Ethanol B), 5% water and 5% glycerol for transportation to the laboratory and subsequent analysis.

In addition to macro-invertebrates, any fish of conservation concern incidentally observed during the surveys will also be recorded.

The samples will be identified, under laboratory conditions, to species level where possible, or if this is not possible identification will be undertaken to the lowest possible taxa, using standard freshwater invertebrate sorting and identification procedures, and using industry standard identification keys.

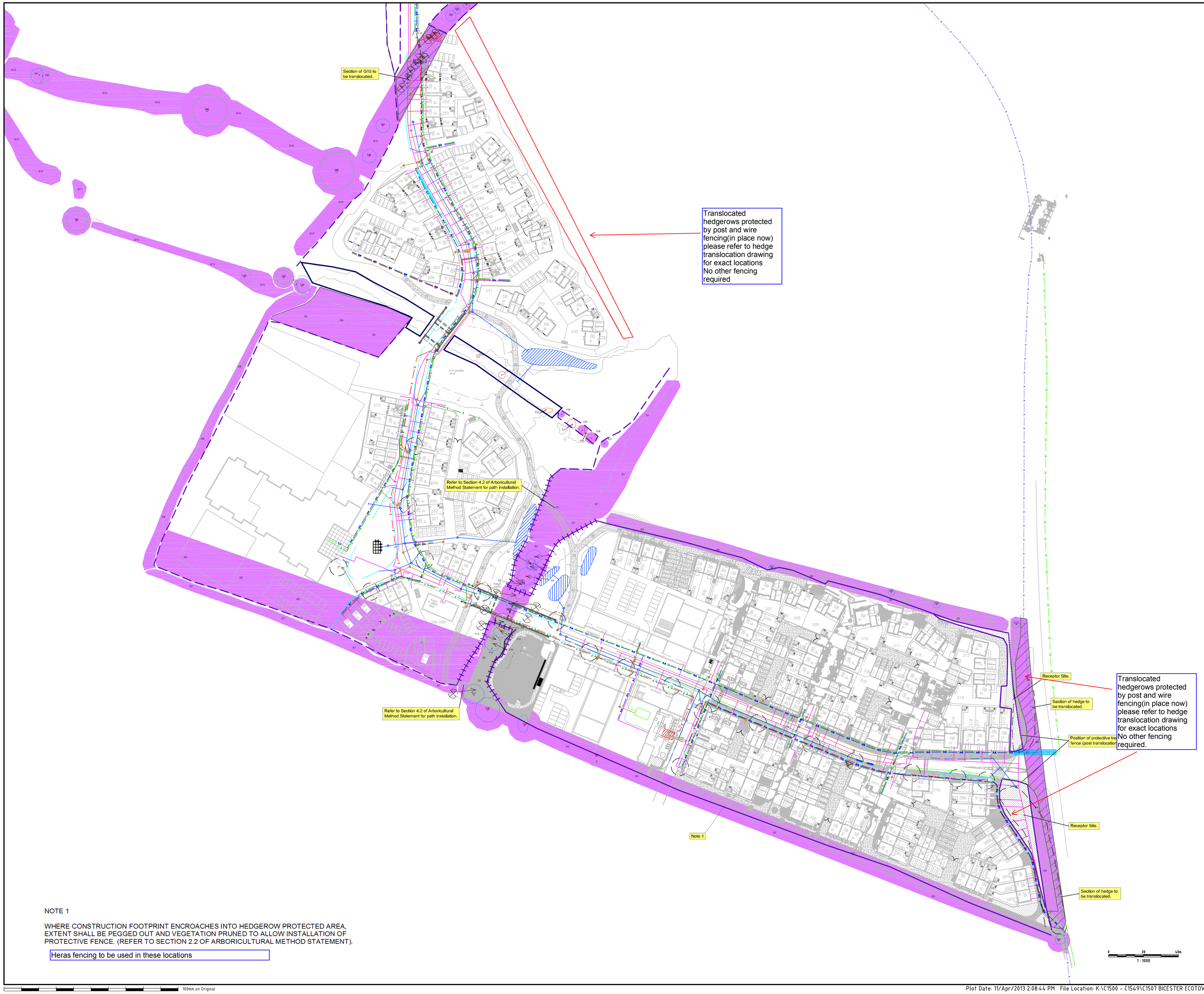
Biological Monitoring Working Party (BMWP) scores for each sample will be calculated, in addition to N-TAXA (Number of BMWP scoring taxa) and Average Score Per Taxon (ASPT) scores. These scores provide an assessment of water quality at each of the sample locations, based on the different tolerances of invertebrate species/communities to pollutants.

In addition to BMWP and ASPT scores, Community Conservation Index (CCI) scores will calculated for each of the samples. CCI is used to assess the conservation value of a sample location. CCI provides an indication of the rarity of the species identified as well as the number of species recorded. Together these scores will be used to assess water quality and identify whether construction has had an effect on water quality.

An in stream assessment of bed conditions and substrate will be recorded at each location using the following parameters: width (m), average depth (cm), conductivity (µScm3), pH, substrate (% cover clay, silt, sand, gravel, pebbles, cobbles, boulders), flow, shading, macrophyte cover (%), bryophyte cover (%) and algal cover (%). [This part of the assessment is to ensure that the morphology of the channels has not deteriorated as a result of site construction work and that the ability to meet the requirements of the Water Framework Directive has not been compromised.]

Sampling locations

See Section 2.1.2 of the main report.



Key

- Trees to be removed
- Position of protective tree fence (low use area)
- Position of protective tree fence (high use area) — Heras Fencing
- Position of protective tree fence (chestnut pale) — Reinforced Heras Fencing
- Root Protection Area
- Canopy extent of Category A tree
- Canopy extent of Category B tree
- Canopy extent of Category C tree
- Canopy extent of Category R tree
- Broadband (WDA) & CCTV (with joint boxes)
- BT with JBF6 joint box
- Electricity
- Gas
- Water (potable)
- NTL with C1 joint box
- CCTV
- WDA Broadband
- BT-NTL Duct
- Broadband & CCTV Duct

NOTE 1

WHERE CONSTRUCTION FOOTPRINT ENCROACHES INTO HEDGEROW PROTECTED AREA, EXTENT SHALL BE PEGGED OUT AND VEGETATION PRUNED TO ALLOW INSTALLATION OF PROTECTIVE FENCE. (REFER TO SECTION 2.2 OF ARBORICULTURAL METHOD STATEMENT).

Heras fencing to be used in these locations

Issue	Description	Date
04	FOURTH ISSUE PROTECTIVE FENCING UPDATED	11 APR 13
03	THIRD ISSUE PROTECTIVE FENCING UPDATED	13 FEB 13
02	SECOND ISSUE IN RESPONSE TO LPA COMMENTS	13 DEC 12
01	FIRST ISSUE	24 AUG 12

A2DOMINIAN GROUP

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

Scales	1:1000	Current Issue Signatures	
		Author J.WEAVER	
Original Size	A1	Checker S.HARRIS	
Height Datum	DATUM	Approver S.WALTERS	
Grid	GRID	© Copyright reserved	

Filename: V001-UA001881-UE21-03-TPP.DWG

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Project: BICESTER ECOTOWN

Title: TREE PROTECTION PLAN SHEET 1 OF 2

WDH Rev A - June 13

Drawing No.	Project No.	Issue
TPP1	UA001881	3

100mm on Original

Requirement for protection fencing after landscaping works complete until final handover (likely to be a few weeks)
Heras Fencing planned for these areas

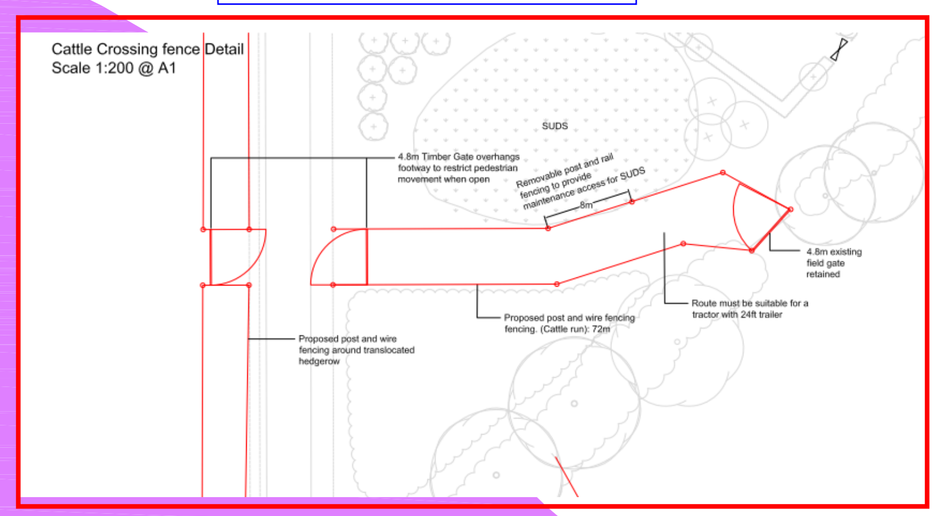
Translocated hedgerows protected by post and wire fencing(in place now) please refer to hedge translocation drawing for exact locations
No other fencing required

Requirement for protection fencing after landscaping works complete until final handover (likely to be a few weeks)
Heras Fencing planned for these areas

Fencing requirement in this area

Receptor Site.
Position of protective fence post translocation
Section of hedge to be translocated.
Refer to Section 3.3 of Arboricultural Method Statement where breakthrough is required (Phase 3).
Section of G28 to be translocated.
Section of G16 to be translocated.
Position of protective tree fence (post translocation)

Cattle Crossing fence Detail
Scale 1:200 @ A1



Key

- Trees to be removed
- Position of protective tree fence (low use area) — Heras Fencing
- Position of protective tree fence (high use area) — Reinforced Heras Fencing
- Position of protective tree fence (chestnut pale)
- Root Protection Area
- Canopy extent of Category A tree
- Canopy extent of Category B tree
- Canopy extent of Category C tree
- Canopy extent of Category R tree
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Height Datum	DATUM	Approver S.WALTERS	
Grid	GRID	© Copyright reserved	

Filename: V001-UA001881-UE21-03-TPP.DWG

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Project
BICESTER ECOTOWN

Title
TREE PROTECTION PLAN
SHEET 2 OF 2
WDH Rev A - June 13

Drawing No.	Project No.	Issue
TPP1	UA001881	3

0 20 40m
1:1000

100mm on Original

Plot Date: 11/Apr/2013 2:10:32 PM File Location: K:\C1500 - C1549\C1507 BICESTER ECOTOWN\C1507 ARBORICULTURE\CAD\V001-UA001881-UE21-03-TPP.DWG V1