

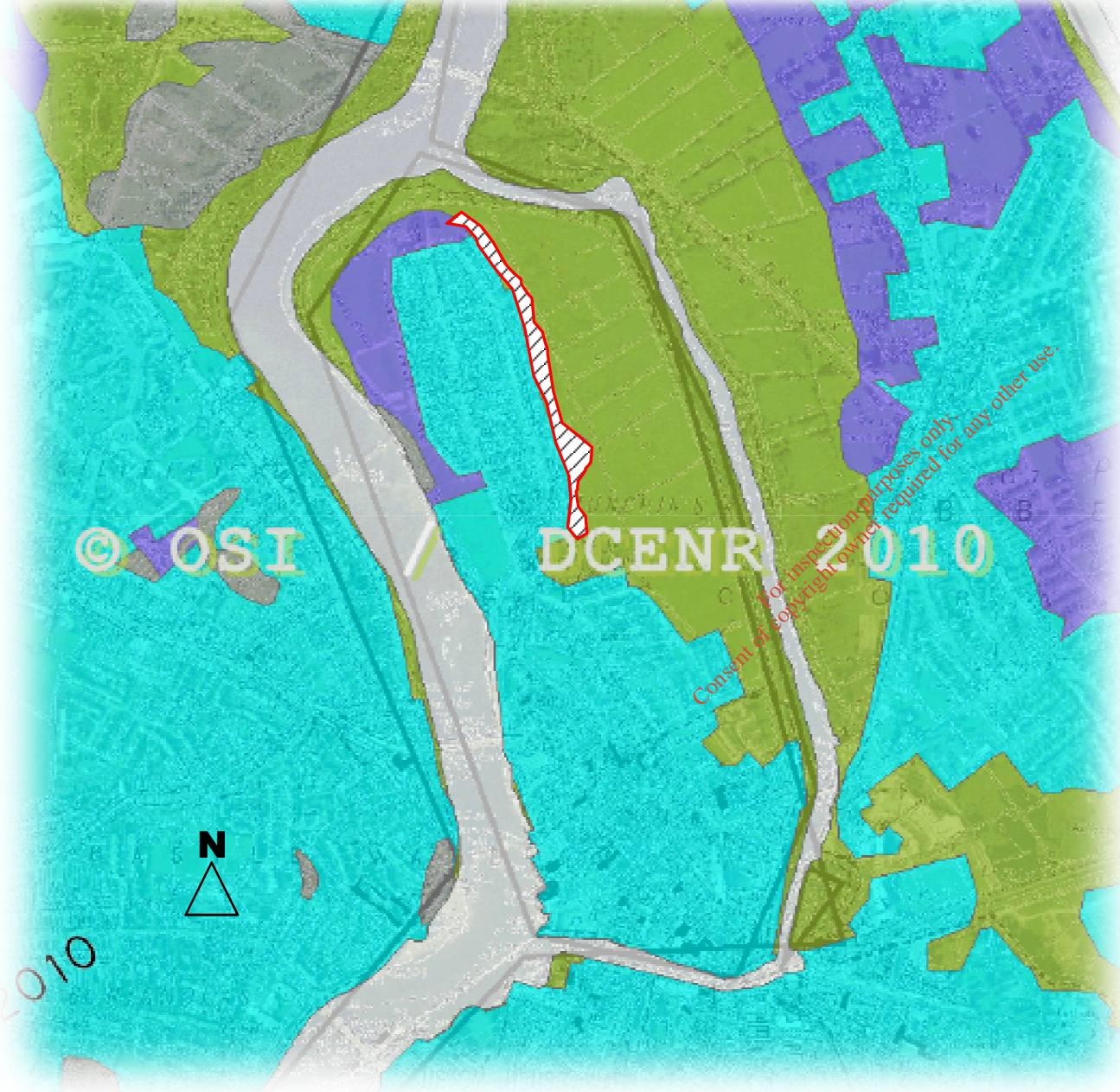
**SITE LOCATION PLAN**



Scale	NTS		
Drawn by	AJS	Approved	PM
Figure Number	C4559/01		

Contract Number	C4559
Contract	Illegal Landfill Site, St. Mary's Park, Limerick
Client	Limerick City Council

# St. Mary's Park - Teagasc RBD Subsoils



## Legend

- RBD Subsoils
- Alluvium
  - Beach sands and gravels
  - Bedrock outcrop and subcrop
  - Esker sands and gravels
  - Glaciofluvial sands and gravels
  - Lake sediments
  - Made ground
  - Marine/estuarine silts and clays
  - Marsh
  - Peat
  - Scree
  - Till derived chiefly from Devonian sandstones
  - Till derived chiefly from Lower Palaeozoic rocks
  - Till derived chiefly from Namurian rocks
  - Till derived chiefly from granite
  - Till derived chiefly from limestone
  - Till derived chiefly from metamorphic rocks
  - Till derived from metamorphic rocks
  - Till derived from mixed Devonian and Carboniferous rocks
  - Water
  - Windblown sands
  - County Boundaries
- Approximate extent of waste mass

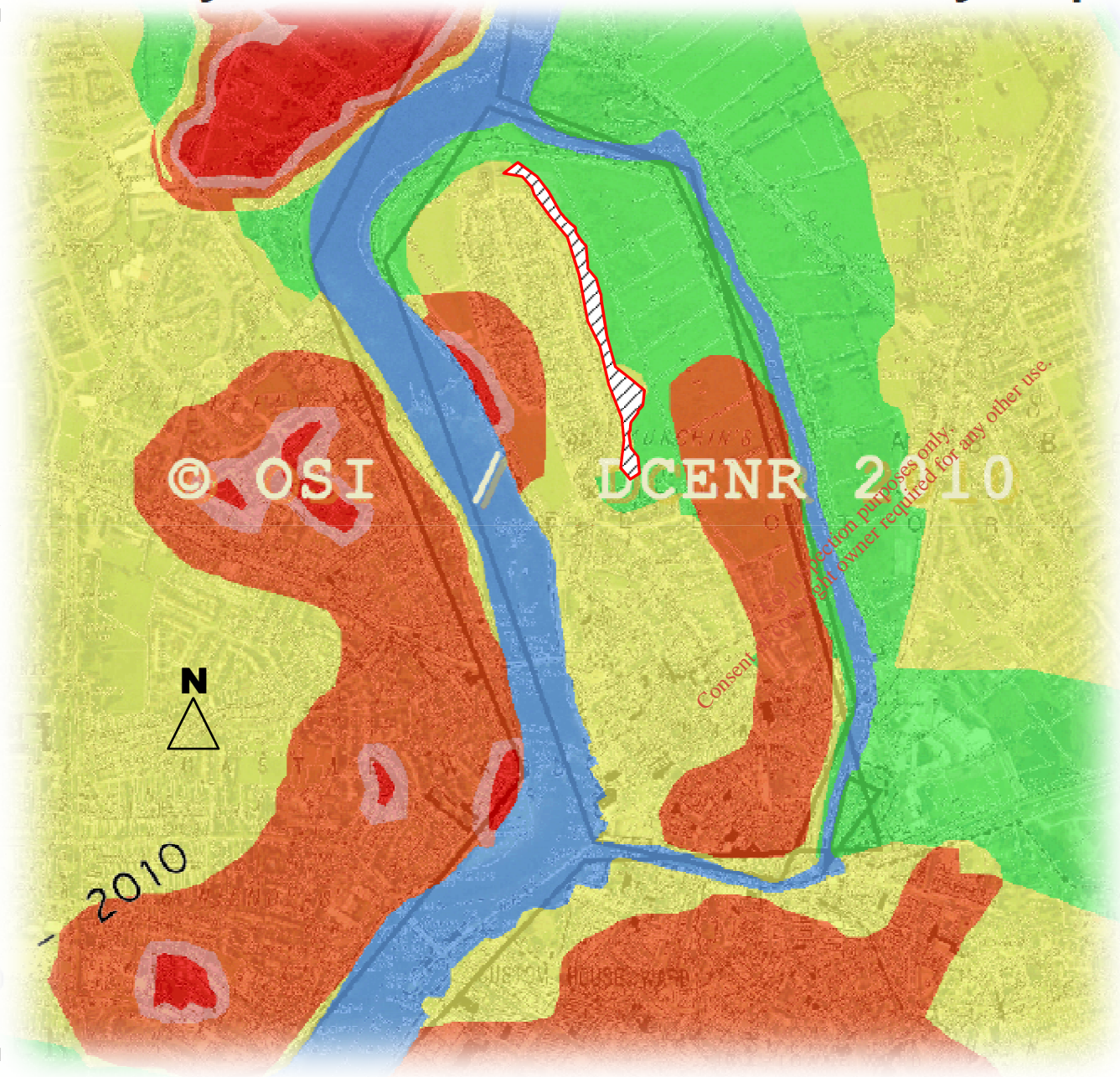
Contract Number	C4559		
Contract	Illegal Landfill Site, St. Mary's Park, Limerick		
Client	Limerick City Council		
Scale	NTS		
Drawn by	AJS	Approved	PM
Figure Number	C4559/02		



**TEAGASC (GSI)  
SOILS &  
SUBSOILS PLAN**



# St Mary's Park - National Vulnerability Map



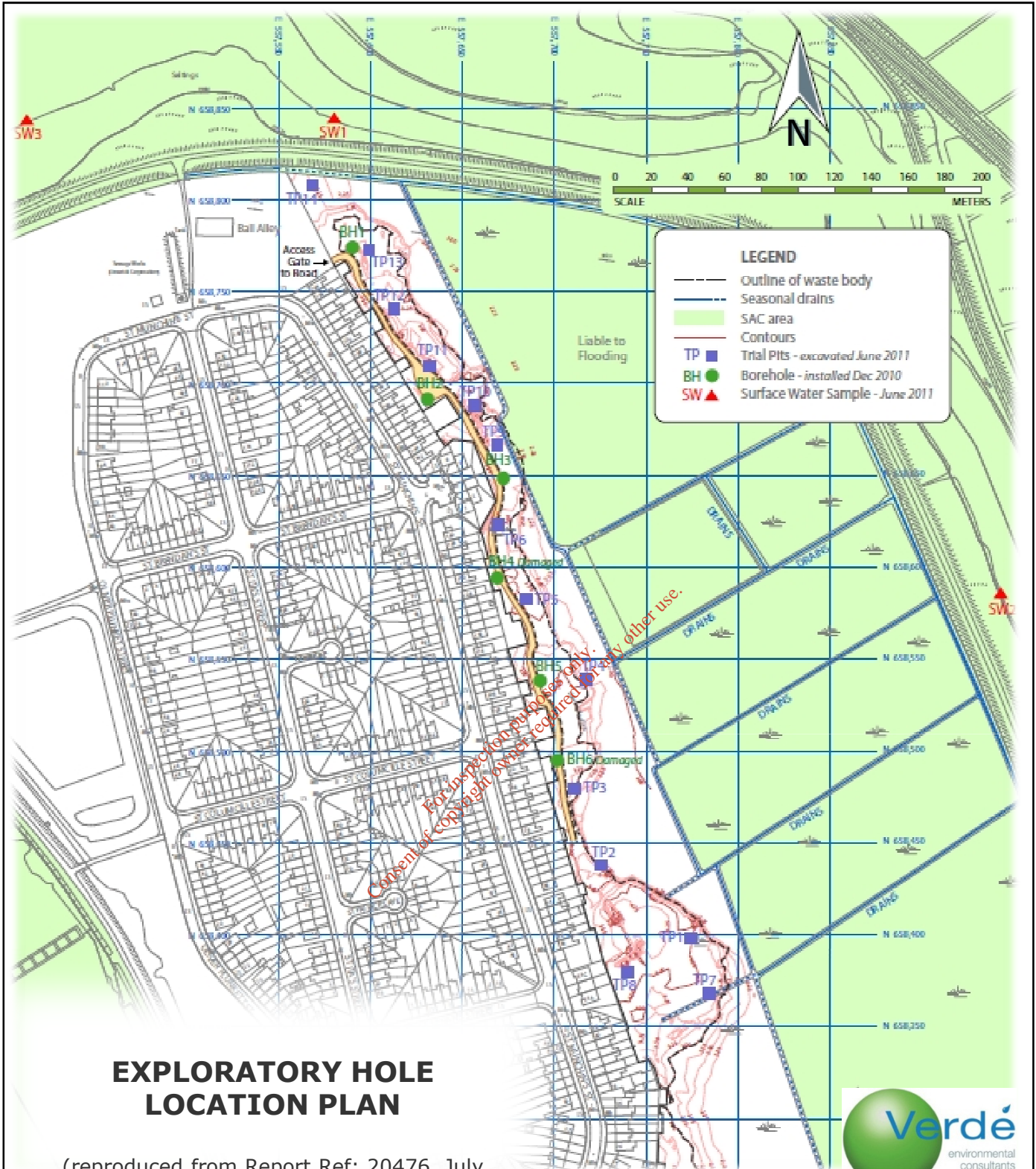
## Legend

- Vulnerability
- X (Rock near Surface or Karst)
  - E - Extreme
  - H - High
  - M - Moderate
  - L - Low
  - HL - High to Low. Only an interim study took place.
  - Water
  - No Data Available
  - County Boundaries
- Approximate extent of waste mass

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Scale	NTS		
Drawn by	AJS	Approved	PM
Figure Number	C4559/03		



**HYDROGEOLOGY  
VULNERABILITY  
PLAN**



## EXPLORATORY HOLE LOCATION PLAN

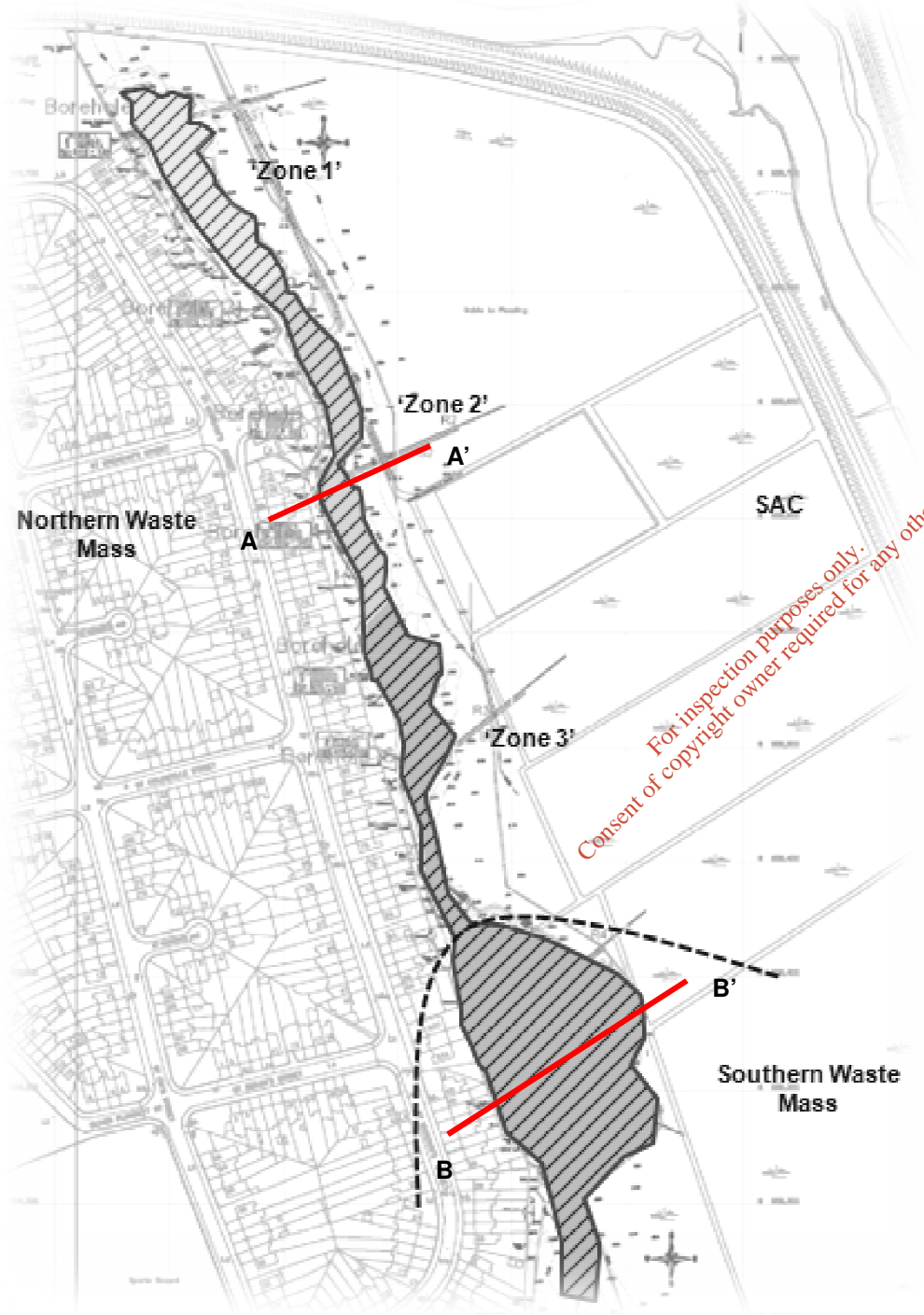
(reproduced from Report Ref: 20476, July 2011)



Scale	NTS	
Drawn by	AJS	Approved PM
Figure Number	C4559/04	

Contract Number	C4559
Contract	Illegal Landfill Site, St. Mary's Park, Limerick
Client	Limerick City Council

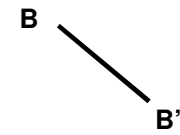




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Approximate extent of waste mass



Schematic Cross Section Transects

Contract Number	C4559		
Contract	Illegal Landfill Site, St. Mary's Park, Limerick		
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Scale	NTS		
Drawn by	AJS	Approved	PM
Figure Number	C4559/05		



# CROSS SECTION LOCATION PLAN

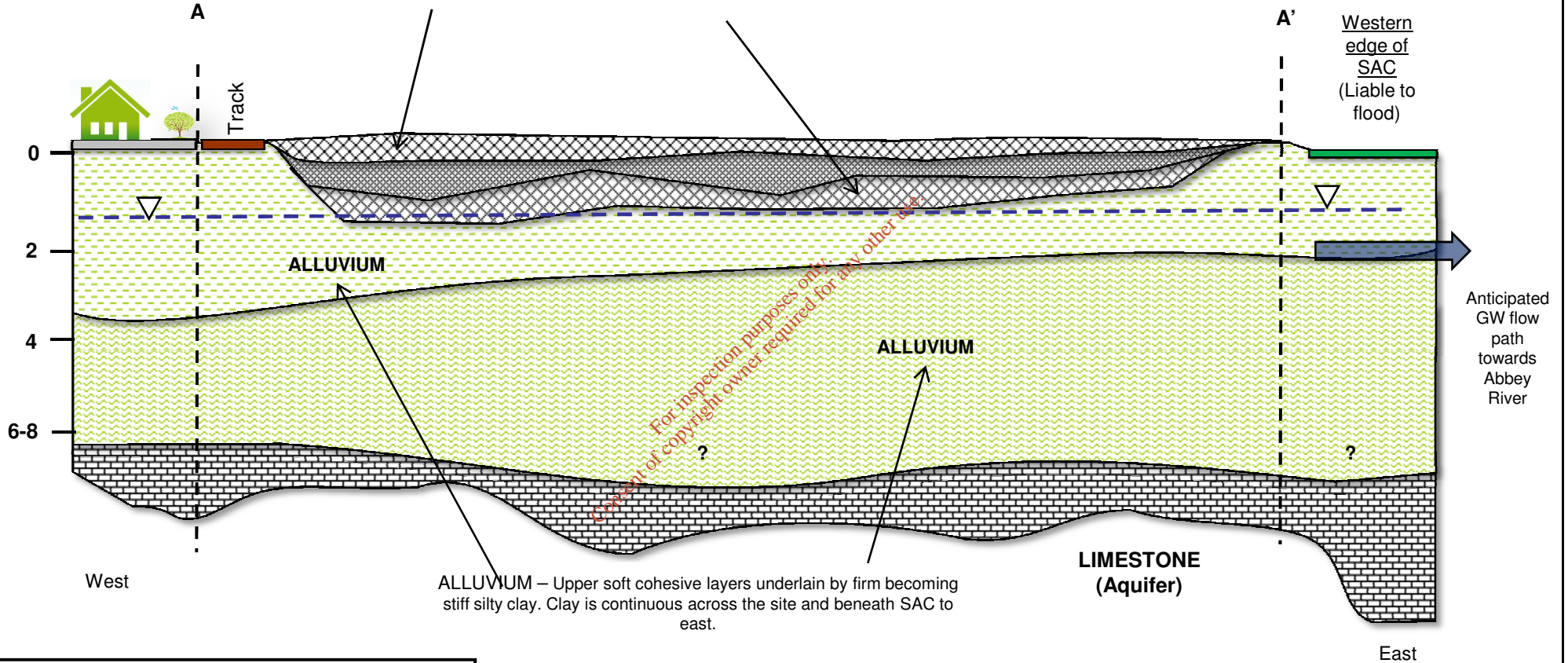
**MADE GROUND**

Stratified Waste Mass typically comprising:

0.5-0.6m: large volume of mixed waste on ground surface including manure, plastic, wood, demolition and some asbestos containing materials;

0.75-1.2m: brown sandy silt with aggregate fill, cobbles and some wastes. Slight organic odour;

1.5-1.6m: dark brown organic silt with mild odour and discolouration (possible natural strata).



<b>Contract Number</b>	<b>C4559</b>
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<b>Client</b>	<b>Limerick City Council</b>

<b>Scale</b>	<b>NTS</b>	
<b>Drawn by</b>	<b>AJS</b>	<b>Approved PM</b>
<b>Drawing Number</b>	<b>C4559/06</b>	



**SCHEMATIC CROSS SECTION A - A'**

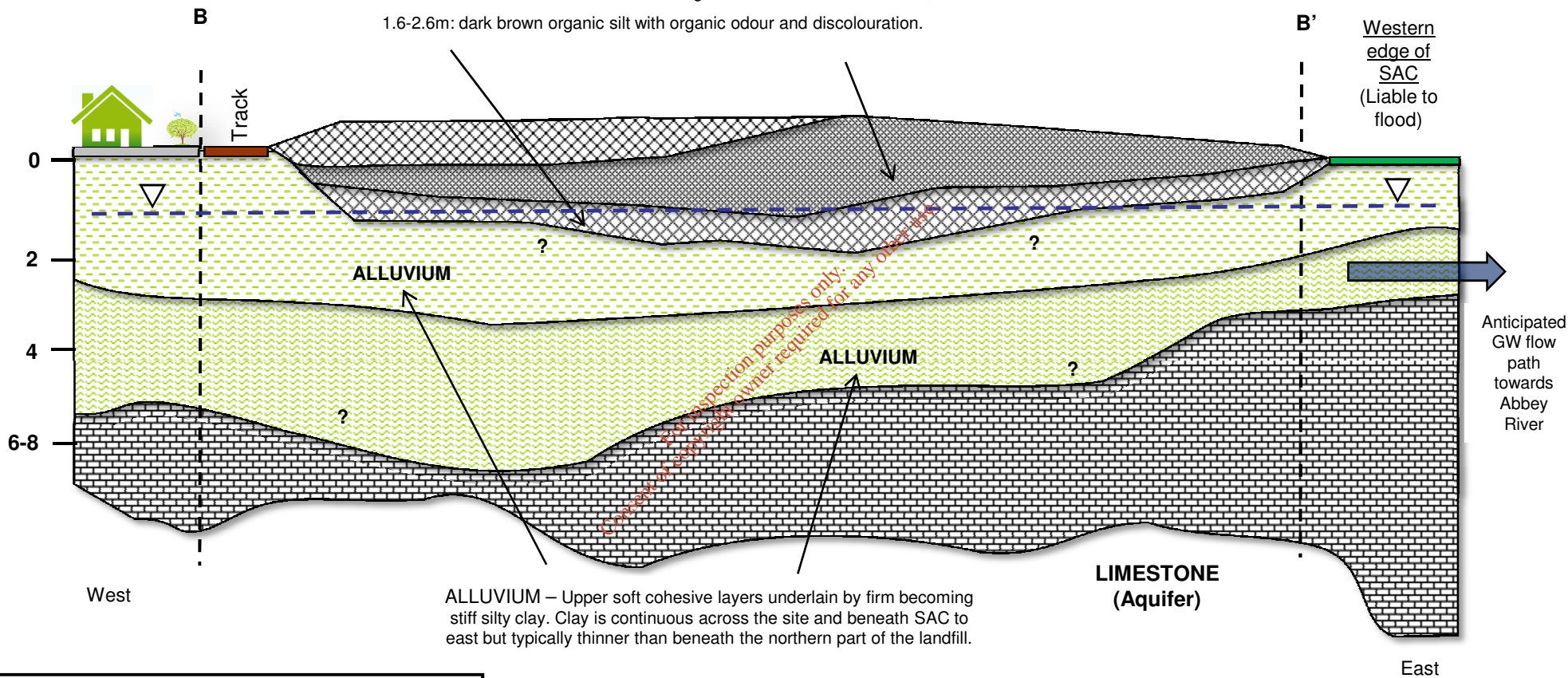
**MADE GROUND**

(Raised) Stratified Waste Mass typically comprising:

0.0-0.55m: localised brown sandy silt;

1.2-1.95m: large volume of buried mixed waste including demolition soils, plastic, wood, carpet, rubber wheels and household wastes. Organic odour and discolouration;

1.6-2.6m: dark brown organic silt with organic odour and discolouration.



ALLUVIUM – Upper soft cohesive layers underlain by firm becoming stiff silty clay. Clay is continuous across the site and beneath SAC to east but typically thinner than beneath the northern part of the landfill.

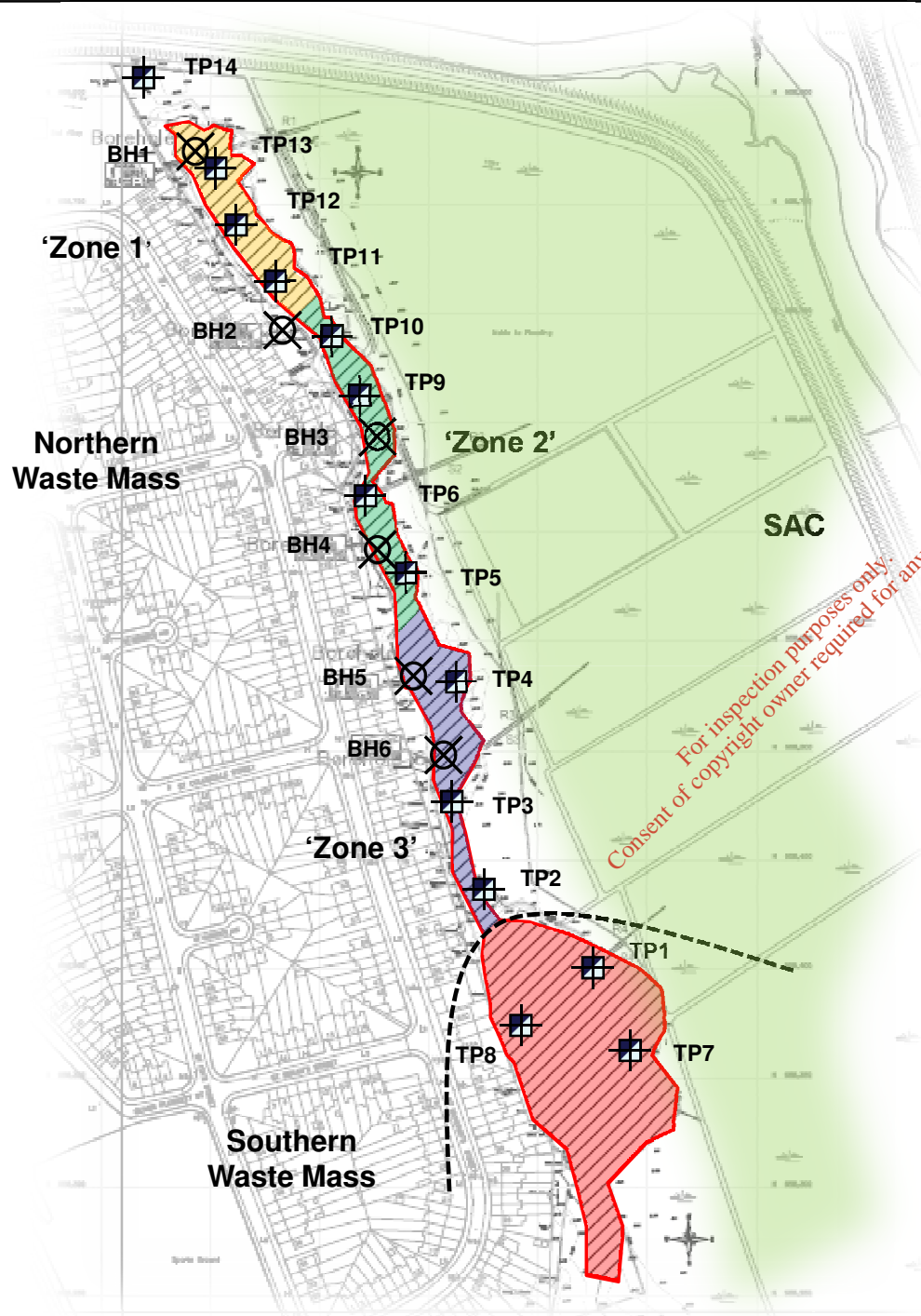
<b>Contract Number</b>	<b>C4559</b>
<b>Contract</b>	<b>Illegal Landfill Site, St. Mary's Park, Limerick</b>
<b>Client</b>	<b>Limerick City Council</b>

<b>Scale</b>	<b>NTS</b>	
<b>Drawn by</b>	<b>AJS</b>	<b>Approved PM</b>
<b>Drawing Number</b>	<b>C4559/07</b>	

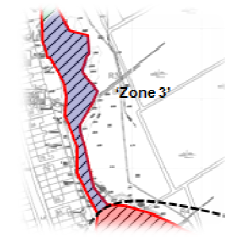


**SCHEMATIC CROSS SECTION B – B'**





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Approximate extent of waste mass



Verdé Borehole Location, 2010

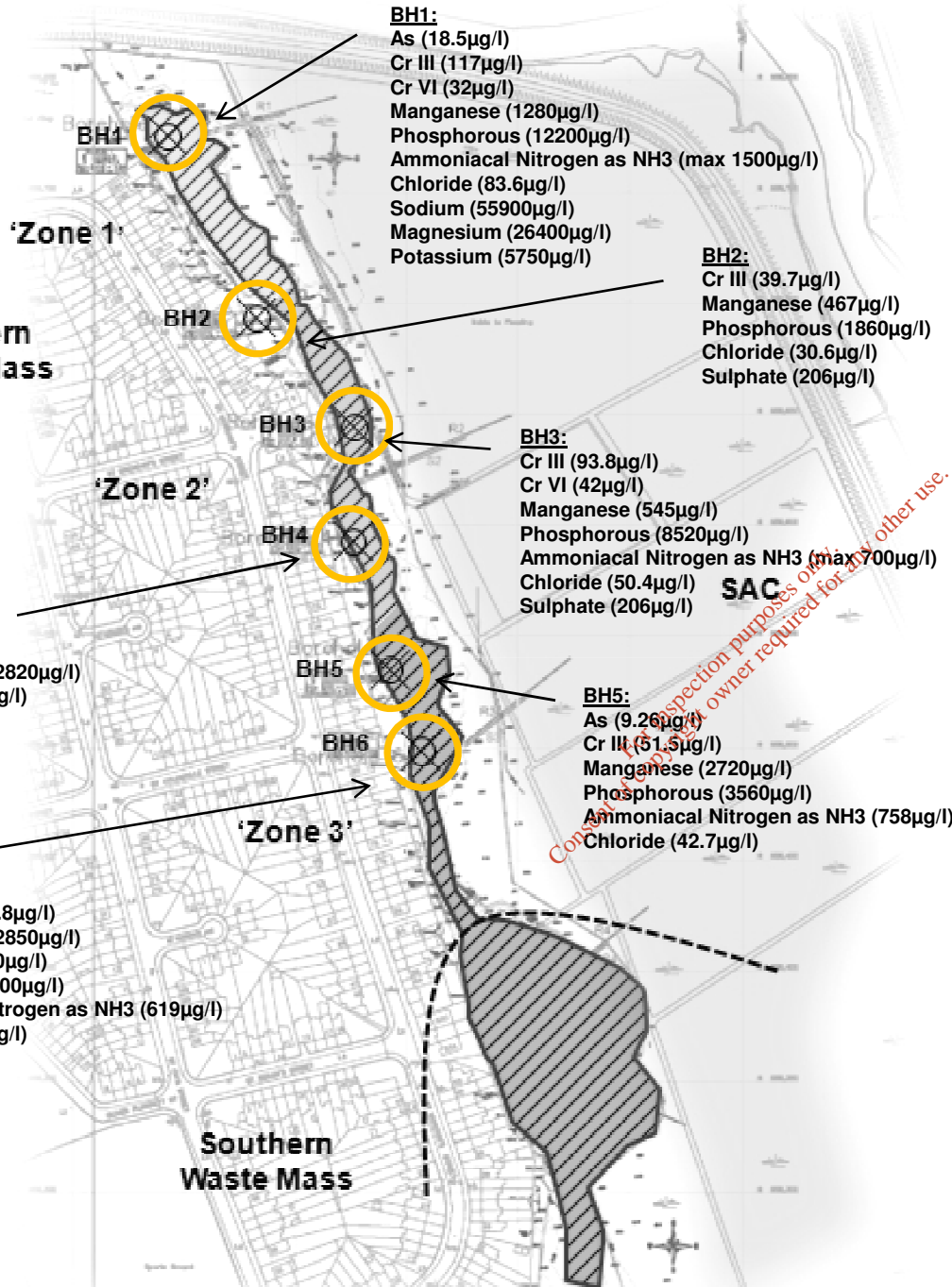


Verdé Trial Pit Location, 2011

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Contract	Illegal Landfill Site, St. Mary's Park, Limerick		
Client	Limerick City Council		
Scale	NTS		
Drawn by	AJS	Approved	PM
Figure Number	C4559/08		



## WASTE MASS ZONATION PLAN



Approximate extent of waste mass



Verdé Borehole Location, 2010



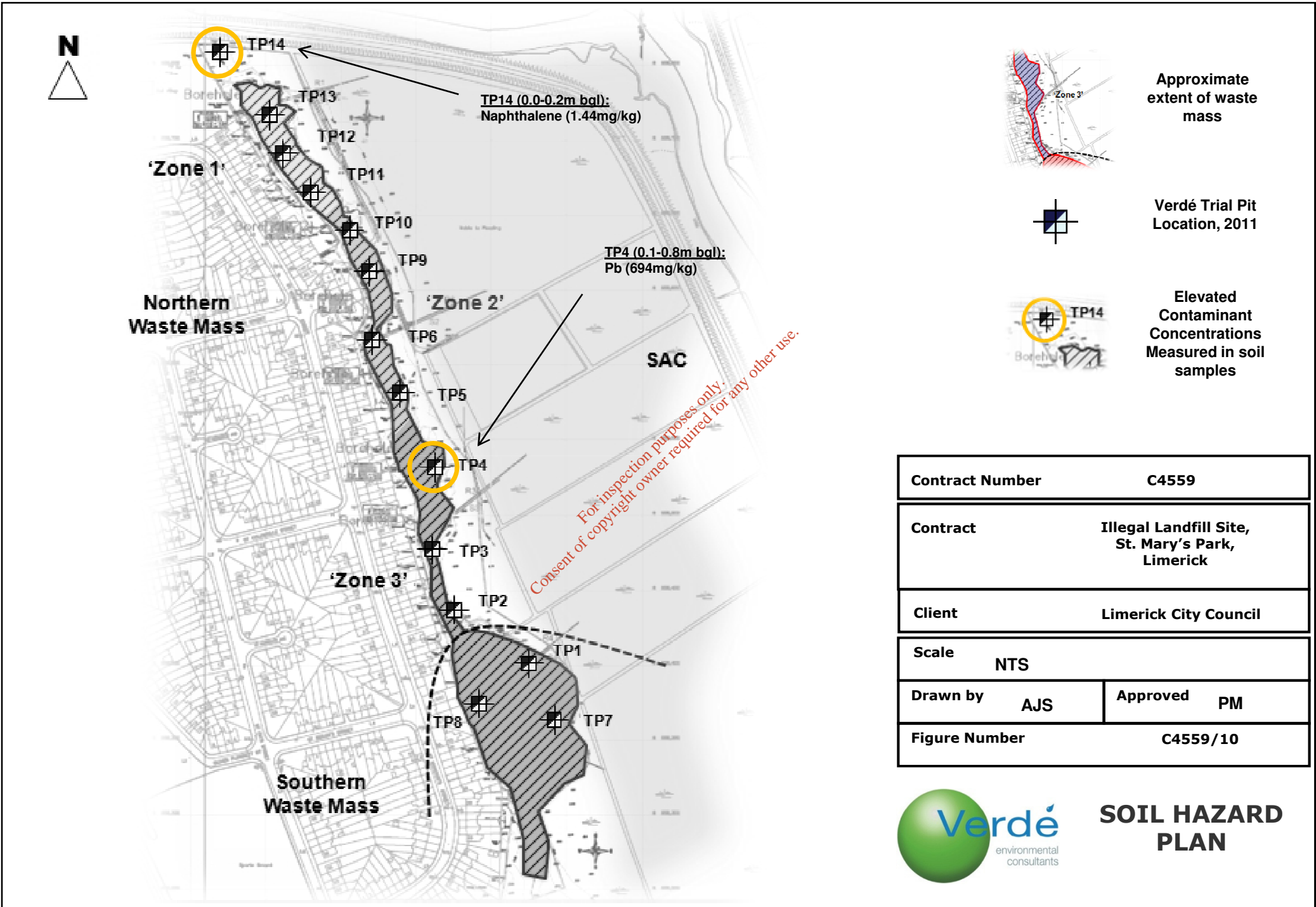
Elevated Contaminant Concentrations Measured in groundwater samples

Contract Number	C4559
Contract	Illegal Landfill Site, St. Mary's Park, Limerick
Client	Limerick City Council
Scale	NTS
Drawn by	AJS
Approved	PM
Figure Number	C4559/09

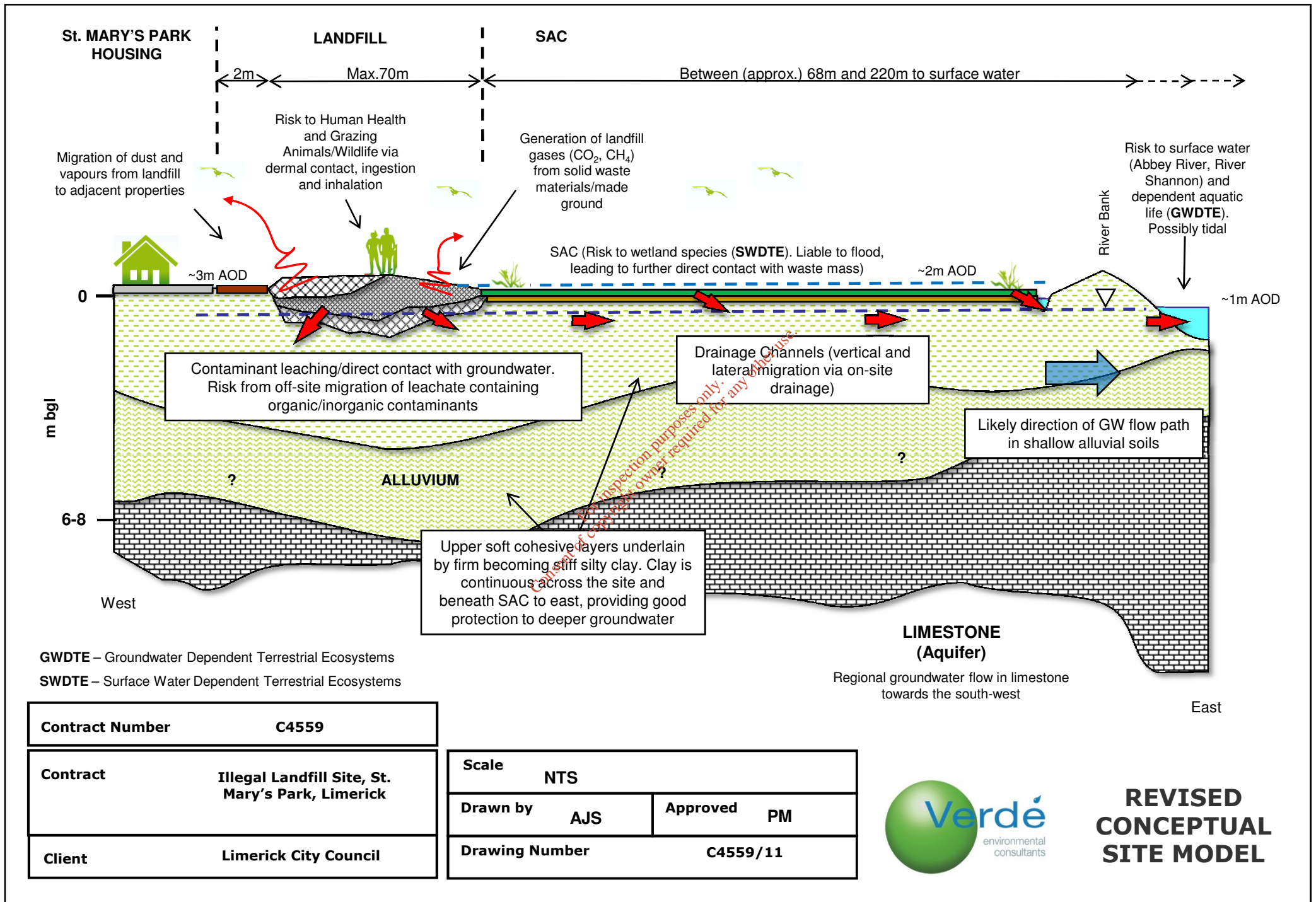


## GROUNDWATER HAZARD PLAN

NB. Dataset comprises 2010 and 2011 groundwater monitoring results





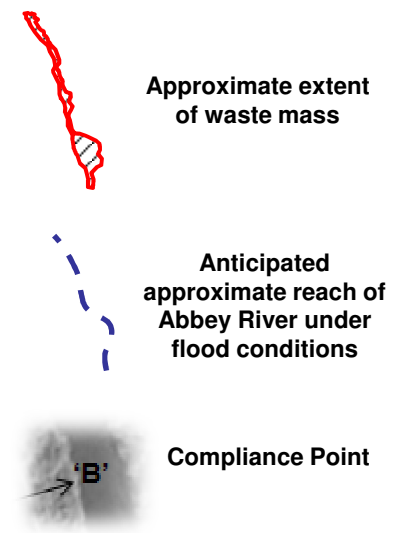
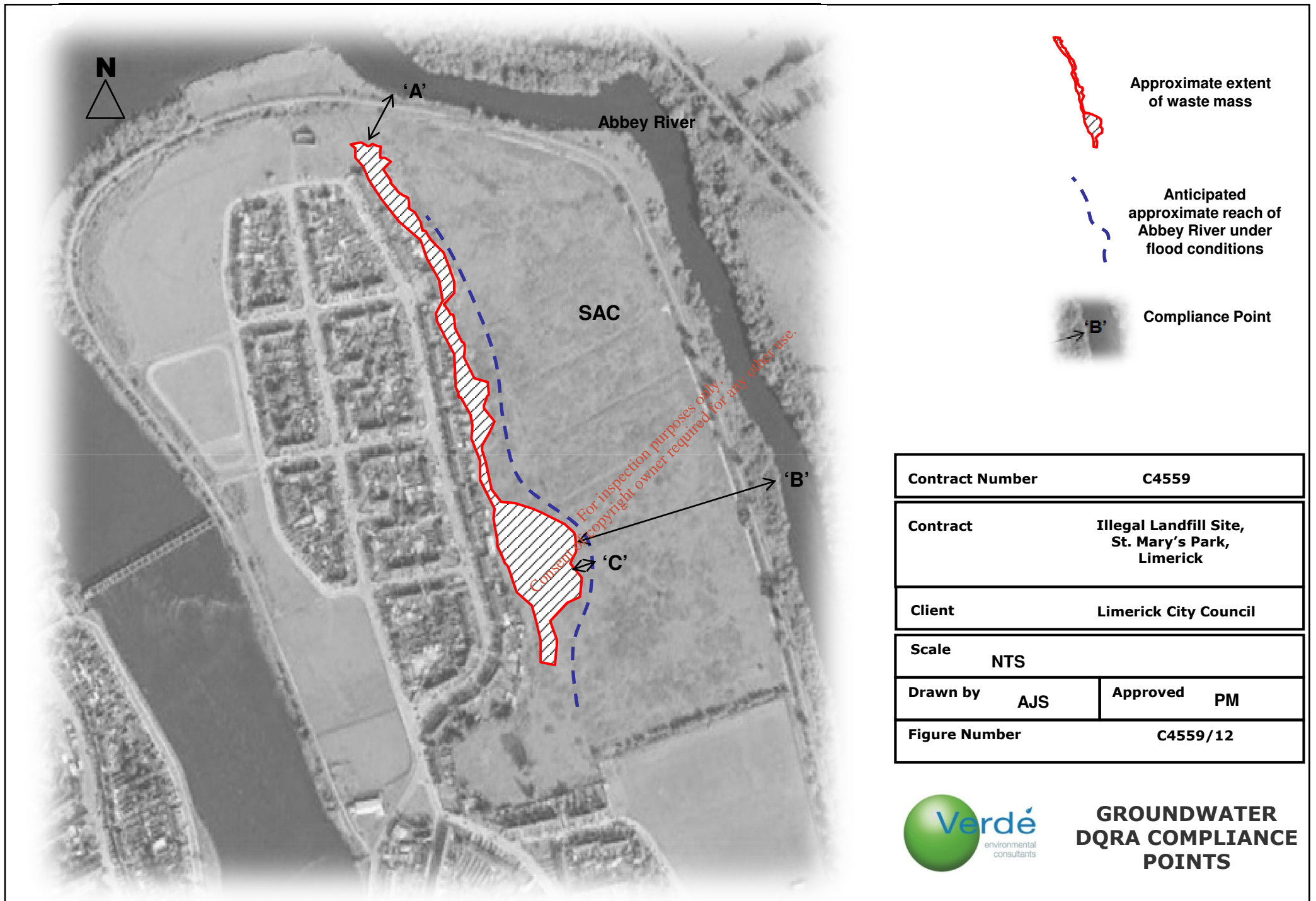


<b>Contract Number</b>	<b>C4559</b>
<b>Contract</b>	<b>Illegal Landfill Site, St. Mary's Park, Limerick</b>
<b>Client</b>	<b>Limerick City Council</b>

<b>Scale</b>	<b>NTS</b>	
<b>Drawn by</b>	<b>AJS</b>	<b>Approved PM</b>
<b>Drawing Number</b>	<b>C4559/11</b>	



**REVISED  
CONCEPTUAL  
SITE MODEL**



<b>Contract Number</b>	<b>C4559</b>
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<b>Client</b>	<b>Limerick City Council</b>
<b>Scale</b>	<b>NTS</b>
<b>Drawn by</b>	<b>AJS</b>
<b>Approved</b>	<b>PM</b>
<b>Figure Number</b>	<b>C4559/12</b>



**GROUNDWATER  
DQRA COMPLIANCE  
POINTS**