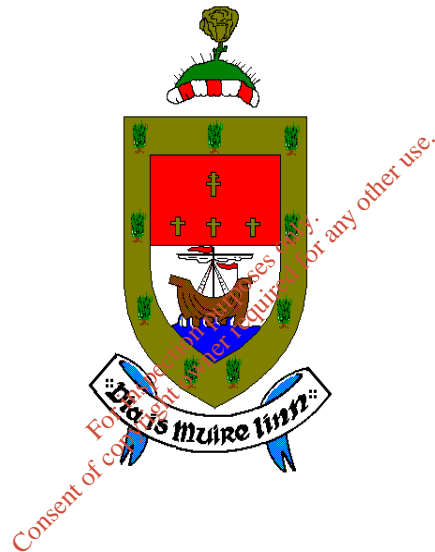


Claremorris Historic landfill Pilot Project Tier 2 Investigation 2010



Mayo County Council

Comhairle Chontae Mhaigheo

June 2010

Claremorris Historic Landfill

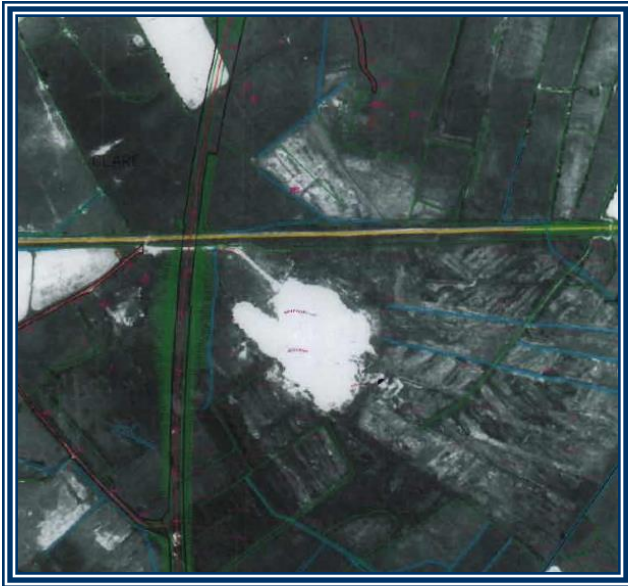
The site is located approximately one kilometre to the east of Claremorris town. It is bounded on the North by a railway line and to the east by the N17. To the South and West the site is surrounded by boggy ground. The original access to the site has been restricted following major road works to the N17. Access to the landfill site is difficult and it is overgrown with an abundance of brambles, gorse, trees and alien species Japanese knot weed.

The site operated as a regional landfill accepting municipal waste from 1982 to March 1996. The area of the site is approximately 26,000m². It is estimated that the 168,000 tonnes of municipal waste was deposited at the site. The site was capped with boulder clay but no remediation works have been completed. It has been reported that on occasion fires broke out on the site.

The tier 1 risk assessment was completed in line with EPA code of practice and indicates the site as moderate risk. Surface water sampling was completed in 2009 on adjacent water courses and it is proposed that further sampling will be undertaken during tier 2.

Tier 2 Objectives

- Confirm results of Tier 1 and modify conceptual model if appropriate;
- Determine depth and nature of capping layer;
- Determine extent and composition of waste body;
- Determine potential of waste to cause adverse environmental impacts
- Determine subsoil type, thickness and permeability
- Determine remediation required



**Landfill
1995**



**Landfill
2000**



**Landfill
2007**

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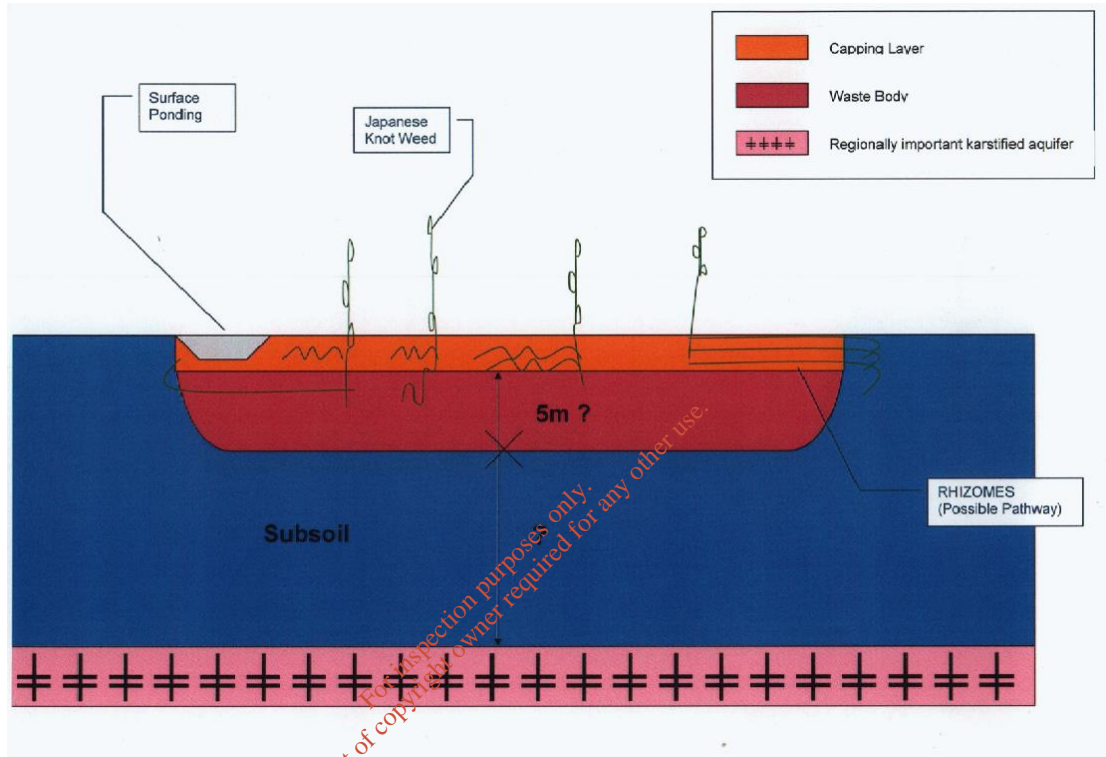
**EPA
Risk ranking
Report
S22-02588**



SPR Linkage	Description	Normalised Score (%)	Risk classification
SPR 1	Leachate migration to surface waters through groundwater and surface water pathways	32.67	Lowest Risk. Class C
SPR 2	Leachate migration to designated areas through groundwater and surface water pathways	0	Lowest Risk. Class C
SPR 3	Leachate migration to human receptors through groundwater pathways	40.83	Moderate Risk Class B
SPR 4	Leachate migration to designated areas through groundwater pathways	0	Lowest Risk. Class C
SPR 5	Leachate migration to aquifer through groundwater pathways	61.25	Moderate Risk Class B
SPR 6	Leachate migration to Public water supply (well) through groundwater pathways	26.25	Lowest Risk. Class C
SPR 7	Leachate migration to surface waters through ground water pathways	40.83	Moderate Risk Class B
SPR 8	Leachate migration to surface waters through surface water pathways	0	Lowest Risk. Class C
SPR 9	Leachate migration to designated areas through surface water pathways	0	Lowest Risk. Class C
SPR 10	Lateral Landfill gas migration to human receptors through subsoil pathways	14	Lowest Risk. Class C
SPR 11	Vertical Landfill gas migration to human receptors through subsoil pathways	14	Lowest Risk. Class C
Overall Risk Classification Class B Moderate Risk			

Tier 1 Conceptual Site Model

Claremorris historic landfill



Proposed Tier 2 Investigation

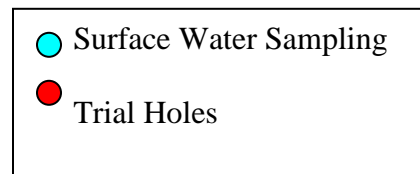
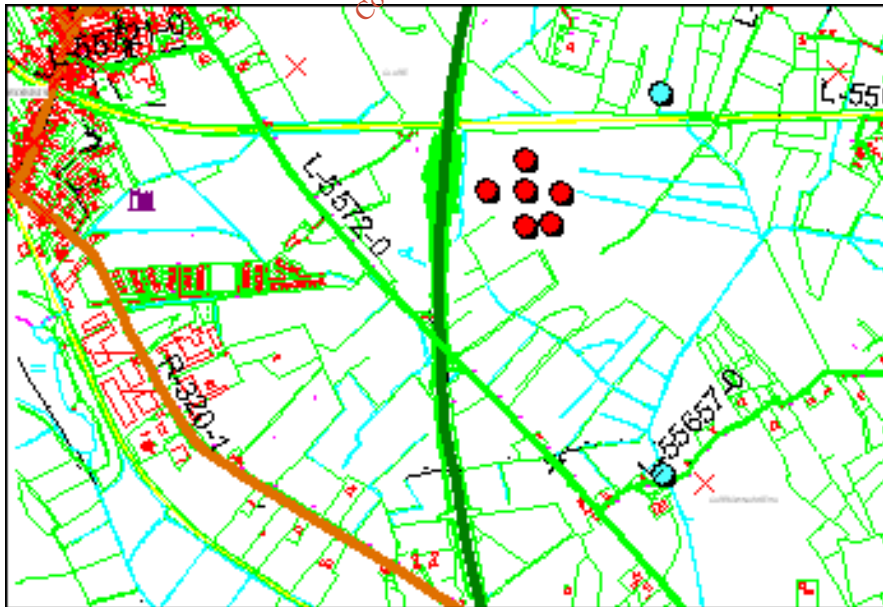
Estimated cost of tier 2 investigation

Site Name	Claremorris Historic Landfill		
Item	Number	Estimate	Item Cost
Trial Pits & Trenches	6	750	€4,500
Waste Sampling	6	330	€1,980
Leachate Sampling	5	575	€2,875
Soil Sampling	3	175	€525
Groundwater Sampling	3	350	€1,050
Topographic Survey	1	1500	€1,500
Site Supervision & Field Sampling	1	900	€900
Reporting	1	3000	€3,000
			€16,330
Air Rotary Open or Cored Hole	3	3500	€10,500
Gas Monitoring Or Sampling	1	1100	€1,100
Leachate Sampling	3	575	€1,725
Surface Water Sampling	2	375	€750
			€14,075
		Total	€30,405

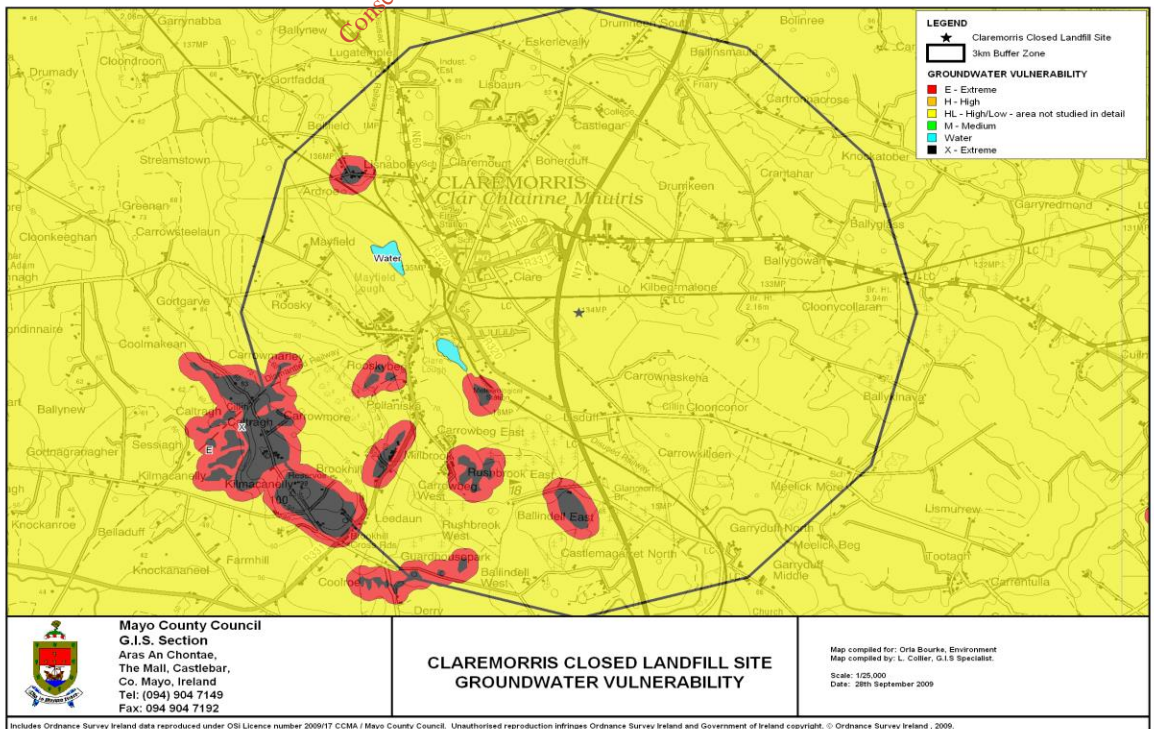
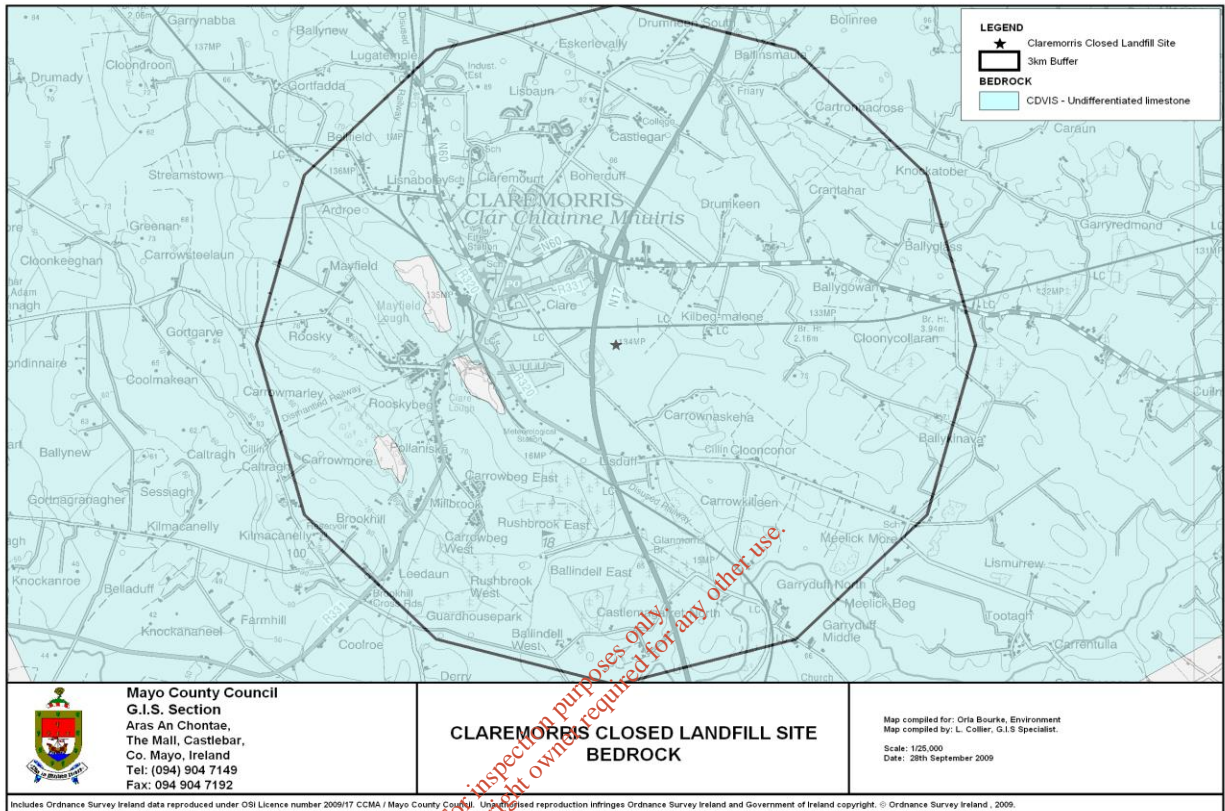
Trial Hole Locations

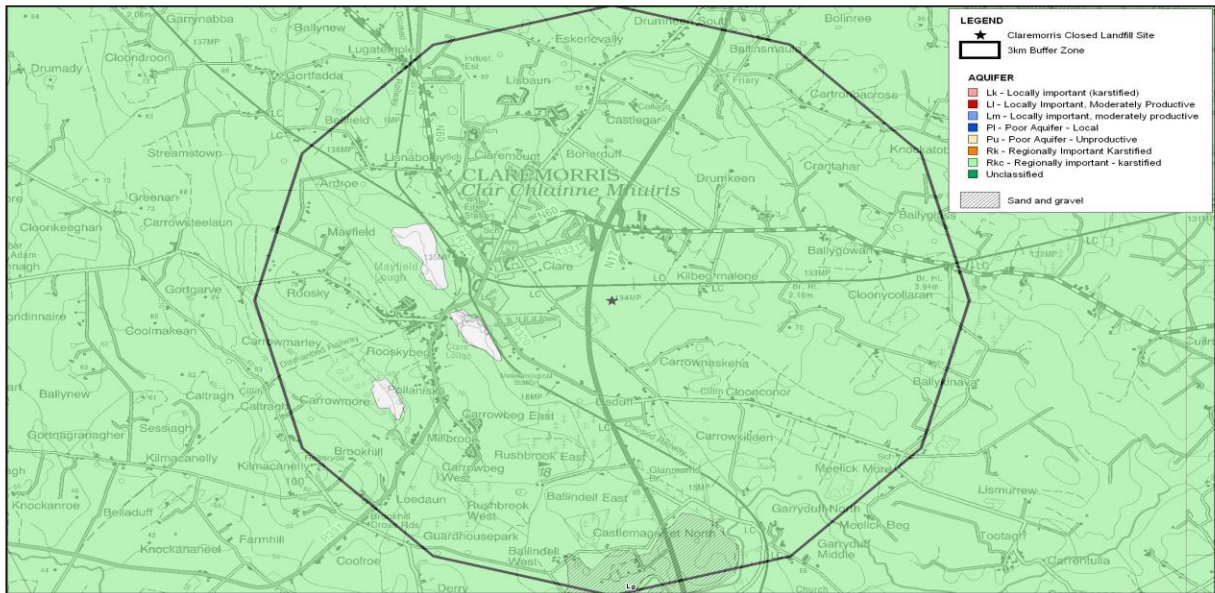


Surface Water Sampling



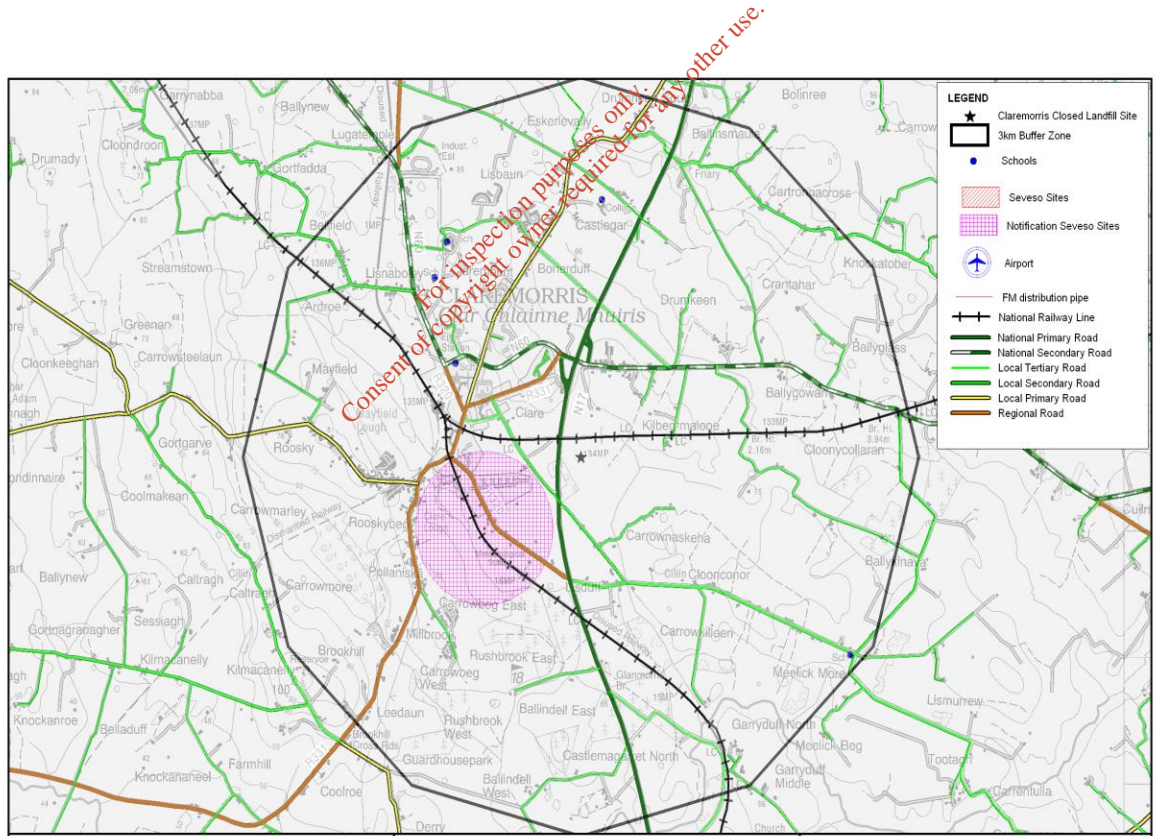
Risk Maps





 <p>Mayo County Council G.I.S. Section Aras An Chontae, The Mall, Castlebar, Co. Mayo, Ireland Tel: (094) 904 7149 Fax: 094 904 7192</p>	<p>CLAREMORRIS CLOSED LANDFILL SITE AQUIFER MAP / SAND & GRAVEL DEPOSITS</p>	<p>Map compiled for: Oris Bourke, Environment Map compiled by: L. Collier, G.I.S. Specialist. Scale: 1:25,000 Date: 28th September 2009</p>
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 <p>Mayo County Council G.I.S. Section Aras An Chontae, The Mall, Castlebar, Co. Mayo, Ireland Tel: (094) 904 7149 Fax: 094 904 7192</p>	<p>CLAREMORRIS CLOSED LANDFILL SITE INFRASTRUCTURE & OTHER</p>	<p>Map compiled for: Oris Bourke, Environment Map compiled by: L. Collier, G.I.S. Specialist. Scale: 1:25,000 Date: 28th September 2009</p>
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