

## Eve O'Sullivan

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**Subject:** Barnageeragh Landfill CoA  
**Attachments:** MGE0755NO0007 Correction to SPR Linkage 8.pdf

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**From:** James Walls <[James.Walls@fingal.ie](mailto:James.Walls@fingal.ie)>  
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**Subject:** Barnageeragh Landfill CoA

Ewa

I refer to the Tier 3 Revised Conceptual Model in the Report issued to you as part of the application for Certificate of Authorisation. Following a review of the SPR linkages we feel that the risk scoring should be changed as per the attached Memorandum. This will have no impact on our regularisation recommendations for the historic landfill as laid out in Section 8 of the Tier2/3 Report.

Please do not hesitate to contact me in relation to any queries you might have.

Regards

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**Senior Executive Engineer**

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<b>Project:</b> Barnageeragh Landfill, Skerries, Co. Dublin.	<b>Project Number:</b> MGE0755
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<input type="checkbox"/> <b>Discussion</b> <input type="checkbox"/> <b>Meeting</b> <input type="checkbox"/> <b>Site Visit</b> <input type="checkbox"/> <b>Telephone</b> <input type="checkbox"/> <b>Task Briefing</b> <input checked="" type="checkbox"/> <b>File Note</b>	
<b>Subject:</b> Correction to SPR Linkage 8 in Tier 3 Risk Assessment	

#### Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Date
F01	Final	Gareth McElhinney	Gareth McElhinney	Gareth McElhinney	23.10.20

This memo has been prepared by RPS for Fingal County Council following a review of the Tier 3 risk assessment contained in report reference: MGE0755RP0001 *Barnageeragh Landfill Tier 2 and Tier 3 Environmental Risk Assessment*, dated July 2020.

Following a review and discussions, the SPR pathway described in Table 7.5 of Section 7.3 of the report can be reduced to “no direct connection.” While the leachate from the waste body is in direct contact with the groundwater, the groundwater is not permanently in direct connectivity to surface waters. Therefore, the conservative approach outlined in the Section 7.3 can be reasonably reduced. This changes the Matrix Score for 2c from 2 to 0.

Carrying through this change to Section 7.5, then Table 7.14 is updated as shown on the page 2 of this memo. Subsequently, Table 7.15 in Section 7.6 is also updated, as shown on the page 3 of this memo.

All SPR linkages now show that the landfill at Barnageeragh poses a Low Risk of environmental pollution.

However, it is still recommended, given the proximity of the site to residential developments, that the landfill be capped as outlined in the *Barnageeragh Landfill Tier 2 and Tier 3 Environmental Risk Assessment* report.

**Table 7.14: Tier 3 Matrix Scores**

Matrix No.	Category	Score	Max. Score possible
1a	Municipal, <1ha	5	10
1b	Municipal, <1ha	5	10
2a	High Vulnerability	2	3
2b	Productive Fissured Bedrock Groundwater Bodies (Rf and Lm)	3	5
2c	Direct connection to surface water body	0	2
2d	All other Tills (including limestone, sandstone etc. – moderate permeability)	1.5	3
2e	All other Tills (including limestone, sandstone etc. – moderate permeability)	2	5
3a	On or within 50m of the waste body	3	3
3b	Greater than 1km of the waste body	0	3
3c	Poor Aquifers (Pl, Pu)	1	5
3d	Greater than 1km (karst aquifer)	3	7
3e	Within 50m of the site boundary	3	3
3f	On site or within 50m of the site boundary	5	5

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Table 7.15: Updated Risk Category and Prioritisation Class

SPR No.	Equation	SPR Linkage Score	% Score	Risk Classification	Max Score
<b>Leachate migration through combined surface water and groundwater pathways</b>					
SPR1 Surface Water Body	$1a \times (2a+2b+2c) \times 3e$	75	25%	Low – Class C	300
	$5 \times (2+3+0) \times 2$				
SPR 2 Protected Area (SWDTE)	$1a \times (2a+2b+2c) \times 3b$	0	0%	Low – Class C	300
	$5 \times (2+3+0) \times 0$				
<b>Leachate migration through groundwater pathway</b>					
SPR 3 Human Presence (Private well)	$1a \times (2a+2b) \times 3a$	75	31%	Low – Class C	240
	$5 \times (2+3) \times 3$				
SPR 4 Protected Area (GWPTe)	$1a \times (2a+2b) \times 3b$	0	0%	Low – Class C	240
	$5 \times (2+3) \times 0$				
SPR 5 Aquifer Category	$1a \times (2a+2b) \times 3c$	25	6%	Low – Class C	400
	$5 \times (2+3) \times 1$				
SPR 6 Public Supply (well)	$1a \times (2a+2b) \times 3d$	75	13%	Low – Class C	560
	$5 \times (2+3) \times 3$				
SPR 7 Surface Water Body	$1a \times (2a+2b) \times 3e$	75	31%	Low – Class C	240
	$5 \times (2+3) \times 2$				
<b>Leachate migration through surface water pathways only</b>					
SPR 8 Surface Water Body	$1a \times 2c \times 3e$	0	0%	Low – Class C	60
	$5 \times 0 \times 2$				
SPR 9 Protected Area (SWDTE)	$1a \times 2c \times 3b$	0	0%	Low – Class C	60
	$5 \times 0 \times 0$				
<b>Landfill gas migration pathways</b>					
SPR 10 Lateral Migration to Human Presence	$1b \times 2d \times 3f$	37.5	25%	Low – Class C	150
	$5 \times 3 \times 5$				
SPR 11 Vertical Migration to Human Presence	$1b \times 2e \times 3f$	50	20%	Low – Class C	250
	$5 \times 5 \times 5$				