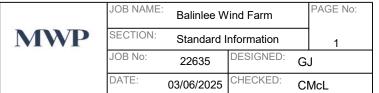


Appendix 41

Wastewater Holding Tank Calculations



Greensource Client: Ballinlee Green Energy Project Project Name: Ballinlee Wind Farm Project Location: County Limerick ITM Co-ordinates: Easting: 559846.33 Northing: 635105.39 Irish Grid Co-ordinates: Easting: 159887.19 Northing: 135056.93 Latitude: 52 deg 27 min 52.28087 Longitude: -8 deg 35 min 27.34041 MWP SAAR: 981 mm Average Annual Rainfall model Ireland.dwg	Client: Ballinlee Green Energy Project Project Name: Ballinlee Wind Farm Project Location: County Limerick ### Co-ordinates: ### Easting: 559846.33 **Northing: 635105.39 ### Ish Grid Co-ordinates: ### Easting: 159887.19 **Northing: 135056.93 ### Latitude: 52 deg 27 min 52.28087 **Longitude: -8 deg 35 min 27.34041 ### MWP SAAR: 981 mm Average Annual Rainfall model Ireland.dwg **July 1.050-Records Incoming Nacoming Public Services Met Elerant SOIL: 2 Type FSR - Fig I 4 18 (1) [Soil] [ITM].dwg SPR: 0.3 GCF 1: 0.85 GCF 30: 1.65 GCF 30: 1.65 GCF 30: 1.65 GCF 100 1.95 Subsoil Permeability: Moderate Subsoil Permeability Unique ID Subsoil Permeability Code Subsoil Permeability Description Moderate Permeability Description Moderate Permeability Description	f:				\top														٥	tnut	
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JOB No:	22635	DESIGNED:	G.	J			
DATE:	03/06/2025	CHECKED:	CI	McL			

	TANK LOADING					Output
	TANK LOADING					
	Typical Hydraulic Load:		50.0	L / PE / Day Non	-Domestic	
	Typical Predicted Occupant	су:	5.0	PE		
	Typical Daily Load:		250.0	L / Day		Typical Daily Load:
						250 L / Day
	TANK DIMENSIONS					
	Rectangular			Circular		
	Length:	3.0	m	Diameter:	3.4 r	m
	Width:	3.0	m		r	m
	Depth:	2.0	m	Depth:	2.0 r	m
	Plan Area:	9.0	m²	Plan Area:		m ²
	Volume:	18.0	m³	Volume:	18.2 r	m³
	Freeboard:	0.1	m ₃	Freeboard:		m a
	Associated Reduction:	0.9	m³	Associated Reduc	tion: 0.9 r	m³
	Effective Veterans	47.4	p=3	Fee -4: V. 1	47.0	m ³
	Effective Volume:	17.1	m³	Effective Volun	ne: 17.3 r	m ³ Tank Volume:
						17.1 m³
	STORAGE DURATION					
+	JI STAGE BUILDIN					
	Total Storage Duration:		68.4	Working Days		
	Total Storage Duration.		00.4	Working Days		
	Total Storage Duration:		13.7	Working Weeks		Weeks Storage:
	Total Glorage Baration.		10.7	Working Weeks		13.7 Weeks
						10
	CALCULATION CONCLU	JSION				
	Using a rectangular 3.0	x 3.0	x 2.0	m dimeson RC tank w	ith a total capacity	of
	17.1 m³					
			OR			
	Using a circular 3.4 dia	ameter		m dimeson RC tank w	th a total capacity	of
	17.3 m³					
- 1						
		xpected e			Vorking Weeks	
	Whereby the tank has an e					
	and the design is based on	an assur				
				a Non-Domestic s	etting	
	and the design is based on	an assur		a Non-Domestic s	etting	
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	DATE:	03/06/2025	CHECKED:	CI	McL

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f:	BOUVANOV OUEOK			Output
	BOUYANCY CHECK			
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	Densities:	10	L-N1/ 3	
	Soil: Water:	9.8	kN/m³	
	Concrete:	25	kN/m³	
	Concrete:	25	KIN/III	
	Tonk Dataila			
	Tank Details: Area of Tank:		2	
	Concrete Slab Thickness	0.3	m² m	
	Soil Above Tank			
	Soli Above Tank	0	m	
	Wainht of Tank			
	Weight of Tank			
	Top & Bottom Slabs	135	kN	
	Soil Above Tank	0	kN	
	Tank Walls	234	kN	
			kN	
		369	kN	Buoyancy Check:
				Passes
	Buoyancy:			
	Depth to Bottom of Tank:	2.6	m	
	Upwards Pressure on Tank:		kN	
	Water Removed	168	kN	
			kN	
			kN	
	Conclusion of Calculation:	Pass	es	
		+		
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