

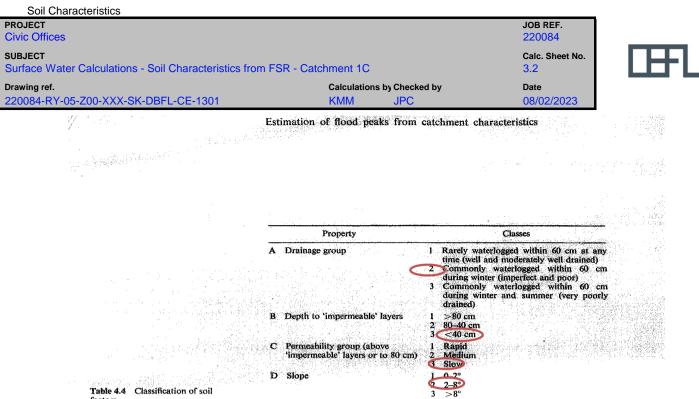
 Table 4.5
 The classification of soils

 by winter rain acceptance rate from soil survey data.

Drainage Depth Slope classes **Class** to impermeable 0 - 2* 2.80 >8° Group layer (cm) Permeability rates above impermeable layers (2)(2)(3 (1) (2) Medium (3) 11 (3)Medium Slow Medium Slow Slow Rapid Rapid Rapid >80 1 1 2 3 1 1 2 40 - 80 3 4 <40 >80 2 3 2 40 - 80 ð <40 >80 3 5 40 - 80 <40 Starly Say Winter rain acceptance indices: I, very high; 2, high; 3, moderate; 4, low; 5, very low. Upland peat and peaty soils are in Class 5. Urban areas are unclassified.

1. Soil index (SPR) value calculated from Flood Studies Report - The Classification of Soils from Winter Rainfall Acceptance Rate (Table 4.5).

799 0 0



factors.

Having decided all four parameters, Table 4.5 was used to reach the index of 'winter rain acceptance'.

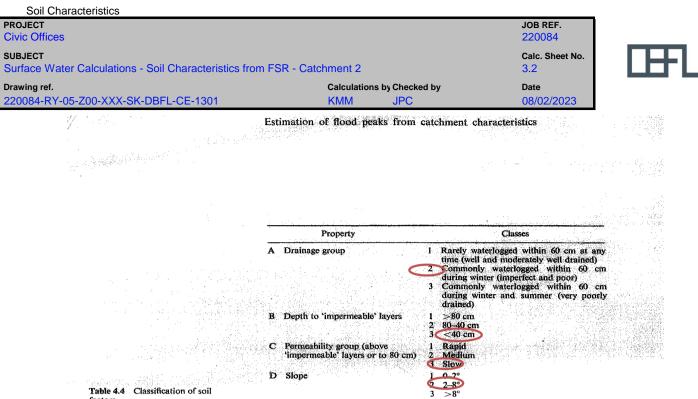
Table 4.5 The classification of soils by winter rain acceptance rate from soil survey data.

Drainage Class	Depth to impermeable layer (cm)	Slope classes												
Group			0 - 2 °	and and a second second		2.80		>8 °						
	in yer (only	Permeability rates above impermeable layers												
		(1) Rapid	(2) Medium	(3) Slow	(1) Rapid	(2) Medium	(3) Slow	(1) Rapid	(2) Medium	Slow ⁽³⁾				
······	>80		1.		1			1	2	3				
1	40 - 80					2		3		4				
	<40													
2	>80	2			3									
	40 - 80	2			>		4	,						
\smile	(40)-	3			Dela Maria	e 1997 - Andreas National State	المشمس ال			• .**				
3	>80				s statut.	alian an National				14 de 18 14 de 19				
	40 - 80					5								
	<40			an a			an Earlier and							
i i ininina animalina a			Winter o	in accentar	indices•	i verv hig	h•2 birb•	3, moderati	a. A. Jones	uami laui				

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799 0

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			0 - 2 °			2.80		×8°							
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		(1) Rapid	(2) Medium	(3) Slow	(1) Rapid	(2) Medium	(3) Slow	(1) Rapid	(2) Medium	(3) Slow					
	>80				1			1	2	3					
1	40 - 80					2		3		4					
	<40														
\sim	>80	2			•										
(2)	40 - 80	Z		•)		4	,							
	(40)-	-3			Jelanki se	e antes en antes en antes antes antes en	المشمس ال								
	>80				an a			en <u>en en en</u> en Renañ sen en							
3	40 - 80					5		1997 - 1997 -							
	<40			an a			an Earlier and								
le			Winter ra	in acceptar	ce indices:	I, very hig	h; 2, high;	3, moderati is are unclas	e; 4, low; 5	, very low.					

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799 0 0

		Met 1	Eireann			
Return	Period	Rainfall	Depths	for	sliding	Durations
Irish	Grid:	Easting:	267523,	Noi	thing:	333787,

	Interval						Years								
DURATION	6months, lyear,	2,	3,	4,	5,	10,	20,	30,	50,	75,	100,	150,	200,	250,	500,
5 mins	2.5, 3.6,	4.1,	5.0,	5.6,	6.0,	7.5,	9.2,	10.4,	12.0,	13.4,	14.5,	16.2,	17.6,	18.7,	N/A,
10 mins	3.5, 4.9,	5.7,	6.9,	7.8,	8.4,	10.5,	12.9,	14.4,	16.7,	18.7,	20.2,	22.6,	24.5,	26.0,	N/A ,
15 mins	4.1, 5.8,	6.8,	8.2,	9.1,	9.9,	12.3,	15.1,	17.0,	19.6,	22.0,	23.8,	26.6,	28.8,	30.6,	N/A,
30 mins	5.4, 7.6,	8.8,	10.5,	11.7,	12.6,	15.6,	19.0,	21.3,	24.4,	27.2,	29.4,	32.7,	35.3,	37.5,	N/A,
1 hours	7.2, 9.9,	11.4,	13.5,	15.0,	16.1,	19.8,	23.9,	26.6,	30.4,	33.8,	36.4,	40.3,	43.4,	45.9,	N/A,
2 hours	9.5, 12.9,	14.7,	17.4,	19.2,	20.6,	25.1,	30.1,	33.4,	37.9,	41.9,	44.9,	49.6,	53.2,	56.2,	N/A,
3 hours	11.1, 15.1,	17.2,	20.2,	22.3,	23.8,	28.9,	34.4,	38.1,	43.1,	47.5,	50.9,	56.0,	60.0,	63.3,	N/A,
4 hours	12.5, 16.8,	19.1,	22.5,	24.7,	26.4,	31.8,	37.9,	41.8,	47.2,	51.9,	55.6,	61.1,	65.3,	68.8,	N/A,
6 hours	14.7, 19.7,	22.3,	26.0,	28.5,	30.5,	36.6,	43.3,	47.7,	53.7,	58.9,	62.9,	69.0,	73.7,	77.5,	N/A,
9 hours	17.3, 23.0,	25.9,	30.2,	33.0,	35.2,	42.0,	49.5,	54.4,	61.0,	66.8,	71.2,	77.9,	83.0,	87.2,	N/A,
12 hours	19.4, 25.7,	28.9,	33.5,	36.6,	38.9,	46.4,						84.9,	90.4,	94.9,	N/A ,
18 hours	22.9, 30.0,	33.6,	38.9,	42.3,	44.9,	53.3,	62.3,	68.1,	76.0,	82.8,	88.0,	95.9,	101.9,	106.8,	N/A ,
24 hours	25.7, 33.5,	37.4,	43.2,	46.9,	49.8,	58.8,	68.5,					104.6,			
2 days	33.2, 41.9,	46.3,	52.5,	56.5,	59.5,	68.9,	78.9,	85.2,	93.7,	101.0,	106.4,	114.6,	120.8,	125.8,	142.7,
3 days	39.6, 49.1,	53.8,	60.4,	64.6,	67.8,	77.6,	87.9,	94.3,	103.0,	110.3,	115.8,	124.0,	130.1,	135.1,	151.7,
4 days	45.3, 55.5,	60.4,	67.4,	71.8,	75.1,	85.3,	95.9,	102.5,	111.3,	118.8,	124.3,	132.6,	138.7,	143.7,	160.3,
6 days	55.7, 67.0,	72.4,	79.9,	84.7,	88.2,	99.1,	110.3,	117.1,	126.2,	133.9,	139.6,	148.0,	154.2,	159.3,	175.9,
8 days	65.2, 77.4,	83.2,	91.2,	96.3,	100.0,	111.4,	123.1,	130.2,	139.6,	147.4,	153.2,	161.8,	168.1,	173.2,	190.0,
10 days	74.2, 87.2,	93.3,	101.8,	107.0,	111.0,	122.8,	134.9,	142.2,	151.8,	159.9,	165.8,	174.5,	180.9,	186.1,	203.0,
12 days	82.7, 96.4,		111.7,												
16 days	99.1, 114.0,	120.9,	130.4,	136.2,	140.6,	153.5,	166.5,	174.4,	184.6,	193.1,	199.3,	208.3,	215.0,	220.3,	237.6,
20 days	114.6, 130.5,		147.9,												
25 days	133.4, 150.4,	158.2,	168.8,	175.3,	180.0,	194.2,	208.2,	216.5,	227.4,	236.3,	242.8,	252.2,	259.1,	264.6,	282.3,
NOTES .															

NOTES: N/A Data not available These values are derived from a Depth Duration Frequency (DDF) Model For details refer to: 'Fitzgerald D. L. (2007), Estimates of Point Rainfall Frequencies, Technical Note No. 61, Met Eireann, Dublin', Available for download at www.met.ie/climate/dataproducts/Estimation-of-Point-Rainfall-Frequencies_TN61.pdf



Appendix D : FLOOD RISK SUPPORTING DATA