

**SCHEDULE 'C' - MINIMUM DISTANCE SEPERATION FORMULEA
MDS I**

MDS I CALCULATION BLANK FORM

Evaluator: _____

Date: _____

File Number: _____

Contact Information:

	Applicant Information	Owner of Adjacent Livestock Facility #1	Owner of Adjacent Livestock Facility #2, etc
File Name			
Last Name			
Farm/Company			
Address			
City/Town			
Province			
Postal Code			
Upper Tier			
Lower Tier			
Lot			
Concession			
911 Number			
Roll Number			
Telephone			
Fax			
Email			

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Animal Type or Material	Description	Number per NU	Manure Form	Existing Maximum Housing Capacity	Existing NU	Factor A	Factor D
Total Number of NU							
Factor A (Odour Potential Factor)...a weighted average may be necessary							
Factor D (Manure Form Factor)...a weighted average may be necessary							
Factor B (<i>Nutrient Units</i> Factor)							
Factor E (Encroaching Land Use Factor)							
Maximum tillable hectares on the lot with the livestock facilities				X		=	(Maximum 300 NU)
F (Building Base Distance, m) = Factor A x Factor D x Factor B x Factor E							
S (Manure Storage Base Distance, m)							
Now What?	Repeat MDS calculation process as appropriate for other <i>livestock facilities</i> in the vicinity. Apply calculated MDS in the context of the land use planning application for which they were prepared.						

**SCHEDULE 'C' - MINIMUM DISTANCE SEPERATION FORMULEA
 MDS II**

MDS II CALCULATION BLANK FORM

Evaluator: _____

Date: _____

File Number: _____

Contact Information:

	Applicant Information	Owner of Adjacent Livestock Facility #1	Owner of Adjacent Livestock Facility #2, etc
File Name			
Last Name			
Farm/Company			
Address			
City/Town			
Province			
Postal Code			
Upper Tier			
Lower Tier			
Lot			
Concession			
911 Number			
Roll Number			
Telephone			
Fax			
Email			

**SCHEDULE 'C' - MINIMUM DISTANCE SEPERATION FORMULEA
MDS II**

MDS II CALCULATION BLANK FORM

Animal Type or Material	Description	Number per NU	Manure Form	Existing Maximum Housing Capacity	Existing NU	Proposed Maximum Housing Capacity	Added NU	Total NU	Factor A	Factor D
Totals										
Factor A (Odour Potential Factor) weighted average may be necessary										
Factor D (Manure Form Factor) weighted average may be necessary										
Factor B (<i>Nutrient Units</i> Factor)										
Has a building permit been issued for the <i>livestock facility</i> on this property, in the last 3 years that has increased its <i>livestock</i> capacity? No? Yes? <i>If No, proceed to Approach (i); if Yes, proceed to Approach (ii)</i>										
Approach (i) - No Building Permits in Last 3 Years					Approach (ii) - Building Permit(s) issued in Last 3 Years					
Calculation of Percentage Increase					Calculation of Percentage Increase					
Total 2 - Total Added NU (From Above)					Total 2 - Total Added NU (From Above) + Total Added NU from building permit(s) issued in the last 3 Years					
Total 1 - Total Existing NU (From Above)					Total 1 - Total Existing NU at <i>Livestock Facility</i> - 3 Years Ago					
If Total 1 = Zero - Treat as a <i>First Livestock Facility</i>					If Total 1 = Zero - Treat as a <i>First Livestock Facility</i>					
% Increase: (Total 2/Total 1) x 100					% Increase: (Total 2/Total 1) x 100					
Factor C (Orderly Expansion Factor)										
F (Building Base Distance, m) = Factor A x Factor D x Factor B x Factor C										
S (<i>Manure Storage</i> Base Distance, m)										
Now What?	Apply MDS calculation to building permit application as appropriate. For Type A land uses, the values of Building Base Distance 'F' and Storage Base Distance 'S' should be multiplied by 1.0 to determine the required MDS setback. For Type B land uses, the values of Building Base Distance 'F' and Storage Base Distance 'S' should be multiplied by 2.0 to determine the required MDS setback. Implementation Guideline #40 provides direction around setbacks from rear <i>lot</i> lines, side <i>lot</i> lines and road allowances. For rear and side <i>lot</i> lines, the values of Building Base Distance 'F' and Storage Base Distance 'S' should be multiplied by 0.1 to determine the required MDS setback. In accordance with Implementation Guideline #44, the required MDS setback from a rear or side <i>lot</i> line should never exceed 30 metres. For road allowances, the values of Building Base Distance 'F' and Storage Base Distance 'S' should be multiplied by 0.2 to determine the required MDS setback.									

**SCHEDULE 'C' - MINIMUM DISTANCE SEPERATION FORMULEA
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FACTOR TABLES

**Table 1: Factor A (Odour Potential) and
Factor D (Manure or Material Form in Storage Facility)**

Animal Type or Material	Description	Number per NU	Factor A	Manure or Material Form in Permanent Storage	
				Liquid Manure: Factor D = 0.8 < 18% Dry Matter	Solid Manure: Factor D = 0.7 18 - 100% Dry Matter
Swine	Sows with litter, dry sows/boars Segregated Early Weaning (SEW)	3.33	1.0	Most systems have liquid manure stored under the barn slats for short or long periods, or in storages located outside	Systems with solid manure inside on deep bedded packs, or with scraped alleys
	Sows with litter, dry sows or boars (non-SEW)	3.5			
	Breeder gilts (entire barn designed specifically for this purpose)	5			
	Weaners (7 kg – 27 kg)	20	1.1		
	Feeders (27 – 105 kg)	6	1.2		
Dairy Cattle ¹	Milking-age cows (dry or milking)		0.7	Free-stall barns with minimal bedding, or sand bedding, or tie-stall barns with minimal bedding & milking centre washwater added	Tie-stall barns with lots of bedding, or loose housing with deep bedded pack, and with or without outside yard access
	- Large-framed; 545 kg – 636 kg (e.g. Holsteins)	0.7			
	- Medium-framed; 455 kg – 545 kg (e.g. Guernseys)	0.85			
	- Small-framed; 364 kg – 455 kg (e.g. Jerseys)	1			
	Heifers (5 months to freshening)				
	- Large-framed; 182 kg – 545 kg (e.g. Holsteins)	2			
	- Medium-framed; 148 kg – 455 kg (e.g. Guernseys)	2.4			
	- Small-framed; 125 kg – 364 kg (Jerseys)	2.9			
	Calves (0 – 5 months)		0.7		
	- Large-framed; 45 kg – 182 kg (e.g. Holsteins)	6			
- Medium-framed; 39 kg – 148 kg (e.g. Guernseys)	7				
- Small-framed; 30 kg – 125 kg (Jerseys)	8.5				
Beef Cattle	Cows, including calves to weaning (all breeds)	1	0.7	N/A	Bedded pack barns with or without outside yard access
	Feeders (7 – 16 months)	3	0.8	Slatted floor systems, or barns with minimal bedding & yard scraped to a liquid storage	
	Backgrounders (7 – 12.5 months)	3			
	Shortkeepers (12.5 – 17.5 months)	2			

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Animal Type, or Material	Description	Number per NU	Factor A	Manure or Material Form in Permanent Storage	
				Liquid Manure: Factor D = 0.8 Less than 18% Dry Matter	Solid Manure: Factor D = 0.7 18 to 100% Dry Matter
Veal	Milk-fed	6	1.1	Slatted floors or slatted stall system	Heavily bedded pack barns
	Grain-fed	6	0.8		
Goats	Does & bucks (for meat kids; includes unweaned offspring & replacements)	8	0.7	N/A	Heavily bedded pack barns
	Does & bucks (for dairy; includes unweaned offspring & replacements)	8			
	Kids (dairy or feeder kids)	20			
Sheep	Ewes & rams (for meat lambs; includes unweaned offspring & replacements)	8	0.7	N/A	All sheep systems
	Ewes & rams (dairy operation; includes unweaned offspring & replacements)	6			
	Lambs (dairy or feeder lambs)	20			
Horses	Large-framed, mature; > 681 kg (including unweaned offspring)	0.7	0.7	N/A	All horse systems
	Medium-framed, mature; 227 kg – 680 kg (including unweaned offspring)	1			
	Small-framed, mature; < 227 kg (including unweaned offspring)	2			
Chickens	Layer hens (for eating eggs; after transfer from pullet barn)	150	1.0	Birds in cages, manure belts, no drying of manure, water added	Birds in cages, manure belts & drying, or floor systems
	Layer pullets (day olds until transferred into layer barn)	500	0.7		
	Broiler breeder growers (males/females transferred out to layer barn)	300	0.7	N/A	Bedded floors
	Broiler breeder layers (males/females transferred in from grower barn)	100	0.7	N/A	Cage or slatted floor systems
	Broilers on an 8 week cycle	350	0.7	N/A	Bedded floor systems
	Broilers on a 9 week cycle	300			
	Broilers on a 10 week cycle	250			
	Broilers on a 12 week cycle	200			
Broilers on any other cycle, or if unknown, use 24.8 m ² /NU	24.8 m ²				
Turkeys	Turkey pullets (day old until transferred to layer turkey barn)	267	0.7	N/A	Bedded floor systems
	Turkey breeder layers (males/females transferred in from grower barn)	67			
	Breeder toms	45			
	Broilers (day olds to 6.2 kg)	133			
	Hens (day olds up to 6.2 kg to 10.8 kg; 7.5 kg is typical)	105			
	Toms (day olds to over 10.8 to 20 kg; 14.5 kg is typical)	75			
	Turkeys at any other weights, or if unknown, use 24.8 m ² /NU	24.8 m ²			

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Animal Type, or Material	Description	Number per NU	Factor A	Manure or Material Form in Permanent Storage	
				Liquid Manure: Factor D = 0.8 Less than 18% Dry Matter	Solid Manure: Factor D = 0.7 18 to 100% Dry Matter
Quail	Use 24.8 m ² /NU	24.8 m ²	0.7	N/A	Bedded floor systems
Partridge	Use 24.8 m ² /NU	24.8 m ²			
Pheasants	Use 24.8 m ² /NU	24.8 m ²			
Squab	Use 24.8 m ² /NU	24.8 m ²			
Rheas	Adults (includes replacements & market birds)	13			
Emus	Adults (includes replacements & market birds)	12			
Ostriches	Adults (includes replacements & market birds)	4			
Ducks	Peking	105	0.8	Wire mesh flooring systems	Bedded floor systems
	Muscovy, use 24.8 m ² /NU	24.8 m ²			
Geese	Use 24.8 m ² /NU	24.8 m ²			
Rabbits	Breeding females (including males, replacements & market animals)	40	0.8	N/A	Cage or floor systems
Chinchillas	Breeding females (including males, replacements & market animals)	320			
Fox	Breeding females (including males, replacements & market animals)	25	1.0		
Mink	Breeding females (including males, replacements & market animals)	90			
Bison	Adults (includes unweaned calves & replacements)	1.3	0.7	N/A	Bedded pack barns with outside access or outside confinement areas
	Feeders (170 kg – 477 kg)	4			
Llama	Adults (includes unweaned young & replacements)	5			
	Feeders (45 kg – 86 kg)	16			
Alpaca	Adults (includes unweaned young & replacements)	8			
	Feeders (23 kg – 48 kg)	26			
Wild Boar	Breeding age sows (includes boars, replacements & weaned piglets to 27 kg)	5			
	Finishing boars (27 kg – 86 kg)	7			
					Continued...

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Animal Type, or Material	Description	Number per NU	Factor A	Manure or Material Form in Permanent Storage	
				Liquid Manure: Factor D = 0.8 Less than 18% Dry Matter	Solid Manure: Factor D = 0.7 18 to 100% Dry Matter
Deer	White tailed deer - Adults > 24 mo (including unweaned offspring)	11	0.7	N/A	Bedded pack barns with outside access <u>OR</u> outside confinement areas
	- Feeders	21			
	Red deer - Adults > 24 mo (including unweaned offspring)	7			
	- Feeders	14			
	Elk - Adults > 24 mo (including unweaned offspring)	2			
	- Feeders	6			
	Elk/deer hybrids - Adults > 24 mo (including unweaned offspring)	4			
	- Feeders	10			
	Fallow deer - Adults > 24 mo (including unweaned offspring)	13			
	- Feeders	23			
Other <i>livestock</i> not listed in this table	To determine the number per NU, add up the total maximum live weight of animals and divide by the weight of animals per NU in the next column	453.6 kg (1000 lbs)	0.8	All storages with liquid manure	All storages with solid manure
Manure imported to a <i>lot</i> not generating <i>manure</i> ²	Maximum capacity of permanent storages at any time: solid or liquid capacity	19.8 m ³ (700 ft ³)	1.2	All storages with liquid manure	All storages with solid manure
Storages for <i>digestate</i> from an <i>Anaerobic Digester</i> (odours reduced during this process)	Maximum capacity of permanent storages at any time: solid or liquid capacity	19.8 m ³ (700 ft ³)	0.5	All storages with liquid manure	All storages with solid manure

1. On farms with 100 milking-age cows (dry & milking), there are usually about 20 replacement calves and 80 replacement heifers.
2. Average value for typical types of manures that might be imported to a *lot*, such as poultry, dairy, beef, swine, horse or other manure.
N/A = Not Applicable

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Table 2: Factor B (Nutrient Units Factor)

In using Table 2 to determine Factor B, it may be necessary to interpolate a value for Factor B. For example, you determine the total number of *nutrient units* at a *livestock facility* to be 255 NU. Table 2 provides a value for Factor B for 250 NU and for 260 NU, but not for 255 NU. The value of Factor B for 250 NU is 435 and the value of Factor B for 260 NU is 441. To determine Factor B for 255 NU interpolate between the numbers 435 and 441. In this example, the value of Factor B for 255 NU is 438.

When interpolating a value for Factor B do not include more than two decimal places. Interpolated values with more than two decimal places should be rounded accordingly. For example, if an interpolated value for Factor B is calculated as 499.238, then use a value of 499.24 for Factor B in the MDS calculation.

For operations less than 5 NU in size, do not interpolate, but use a Factor B of 150. For operations greater than 5000 NU in size, contact OMAFRA staff to determine Factor B.

Final NU	Factor B	Final NU	Factor B	Final NU	Factor B	Final NU	Factor B
Up to 5	150	46	252	124	340	390	508
6	153	47	254	126	342	400	513
7	157	48	256	128	344	410	517
8	160	49	258	130	346	420	522
9	163	50	260	135	351	430	526
10	167	52	264	140	355	440	530
11	170	54	268	145	360	450	535
12	173	56	272	150	364	460	539
13	177	58	276	155	368	470	543
14	180	60	280	160	372	480	547
15	183	62	282	165	376	490	551
16	187	64	284	170	380	500	555
17	190	66	285	175	384	520	562
18	193	68	287	180	388	540	570
19	197	70	289	185	392	560	577
20	200	72	291	190	395	580	584
21	202	74	293	195	399	600	591
22	204	76	294	200	402	620	598
23	206	78	296	205	406	640	605
24	208	80	298	210	409	660	611
25	210	82	300	215	413	680	618
26	212	84	301	220	416	700	624
27	214	86	303	225	419	750	639
28	216	88	305	230	423	800	654
29	218	90	307	235	426	850	668
30	220	92	309	240	429	900	681
31	222	94	310	245	432	950	694
32	224	96	312	250	435	1000	707
33	226	98	314	260	441	1100	731
34	228	100	316	270	447	1200	753
35	230	102	318	280	453	1300	775
36	232	104	320	290	458	1400	795
37	234	106	322	300	464	1500	815
38	236	108	324	310	469	2000	870
39	238	110	326	320	474	3000	980
40	240	112	329	330	480	4000	1090
41	242	114	331	340	485	5000	1200
42	244	116	333	350	490		
43	246	118	335	360	494		
44	248	120	337	370	499		
45	250	122	339	380	504	Greater than 5000	Contact OMAFRA staff

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Table 3: Factor C (Orderly Expansion Factor)

In using Table 3 to determine Factor C, it may be necessary to interpolate a value for Factor C. For example, you determine the percentage increase at a *livestock facility* to be 155%. Table 3 provides a value for Factor C for a 150% increase, and for a 160% increase, but not for a 155% increase. The value of Factor C for a 150% increase is 0.9371 and the value of Factor C for a 160% increase is 0.9497. To determine Factor C for a 155% increase interpolate between the numbers 0.9371 and 0.9497. In this example, the value of Factor C for a 155% increase is 0.9434.

When interpolating a value for Factor C do not include more than four decimal places. Interpolated values with more than four decimal places should be rounded accordingly. For example, if an interpolated value for Factor C is calculated as 0.977643, then use a value of 0.9776 for Factor C in the MDS calculation.

For operations with a 0% increase, or a decrease, i.e. 'negative' percentage increase, use a value of 0.5000 for Factor C. Do not interpolate below a value of 0.5000. For operations with a 700% increase or greater, or for a *first livestock facility*, use a value of 1.1400 for Factor C. Do not interpolate above a value of 1.1400.

% Increase in Nutrient Units	Factor C	% Increase in Nutrient Units	Factor C	% Increase in Nutrient Units	Factor C
0% increase or decreases (‘negative’ increase)	0.5000	27%	0.6674	80%	0.8484
1%	0.5062	28%	0.6736	85%	0.8547
2%	0.5124	29%	0.6798	90%	0.8610
3%	0.5186	30%	0.6860	95%	0.8674
4%	0.5248	31%	0.6922	100%	0.8737
5%	0.5310	32%	0.6984	105%	0.8800
6%	0.5372	33%	0.7046	110%	0.8864
7%	0.5434	34%	0.7108	115%	0.8927
8%	0.5496	35%	0.7170	120%	0.8990
9%	0.5558	36%	0.7232	125%	0.9054
10%	0.5620	37%	0.7294	130%	0.9117
11%	0.5682	38%	0.7356	135%	0.9180
12%	0.5744	39%	0.7418	140%	0.9244
13%	0.5806	40%	0.7480	145%	0.9307
14%	0.5868	41%	0.7542	150%	0.9371
15%	0.5930	42%	0.7604	160%	0.9497
16%	0.5992	43%	0.7666	170%	0.9624
17%	0.6054	44%	0.7728	180%	0.9751
18%	0.6116	45%	0.7790	190%	0.9877
19%	0.6178	46%	0.7852	200%	1.0000
20%	0.6240	47%	0.7914	300%	1.0280
21%	0.6302	48%	0.7976	400%	1.0560
22%	0.6364	49%	0.8038	500%	1.0840
23%	0.6426	50%	0.8100	600%	1.1120
24%	0.6488	55%	0.8167	700% increase, or more, or <i>First Livestock Facility on lot of record.</i>	1.1400
25%	0.6550	60%	0.8230		
26%	0.6612	65%	0.8294		
		70%	0.8357		
		75%	0.8420		

Table 4: Factor E (Encroaching Land Use Factor)

Encroaching Land Use	Factor E
Type A Land Use	1.1
Type B Land Use	2.2

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Table 5: Permanent *Manure or Material Storage* Types

Solid *Manure*: 18% dry matter, or more

Liquid *Manure*: Less than 18% dry matter

***Digestate*:** Less than 18% dry matter

Storage Odour Potential	Solid or Liquid System	Inside or Outside Livestock Facility	Number referred to in Table 6 (View images in Appendix A)	Description of permanent manure storages being sited by MDS II, or encroached upon through MDS I application
Very Low	Solid	Inside	V1	Solid, inside, bedded pack (manure accumulates under <i>livestock</i> over time)
		Outside	V2	Solid, outside, covered (cover keeps off precipitation to prevent runoff)
			V3	Solid, outside, no cover, greater than or equal 30% dry matter (manure is dry enough that a flowpath option can be used for runoff control (<i>Nutrient Management Act, 2002</i>))
			V4	Solid, outside, no cover, 18% to less than 30% dry matter, with covered liquid runoff storage (manure not dry enough to soak up precipitation, so a liquid runoff storage needed, but it has a permanent, tight cover)
	Liquid	Inside	V5	Liquid, inside, underneath slatted floor (manure is stored under the animals in the barn)
		Outside	V6	Liquid, outside, with a permanent, tight fitting cover (negative pressure tarp, concrete lid, inflatable dome, etc.)
			V7	Liquid, (<i>digestate</i>), outside, no cover (all manure has been treated through anaerobic digestion, or a similar process that reduces odours)
	Solid	Outside	L1	Solid, outside, no cover, 18% to less than 30% dry matter, with uncovered liquid runoff storage (manure not dry enough to soak up precipitation, so a liquid Low runoff storage needed, but it is uncovered, producing more odour than in V4 above)
	Liquid	Outside	L2	Liquid, outside, with a permanent floating cover (tarps, foam panels, etc.)
Medium	Liquid	Outside	M1	Liquid, outside, no cover, straight-walled storage (usually circular or rectangular concrete, or steel storages)
			M2	Liquid, outside, roof, but with open sides (roof keeps off precipitation, but the open sides allow wind to travel over the manure and carry odours)
High	Liquid	Outside	H1	Liquid, outside, no cover, sloped-sided storage (earthen <i>manure storages</i> , but <u>not</u> earthen runoff storages associated with a solid <i>manure storage</i> which are L1 above)

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Table 6: MDS I/II Separation Distances for Permanent Manure or Material Storage Types in Table 5

In using Table 6 to determine a value for 'S' – Storage Separation Distance, in some instances it may be necessary to interpolate a value.

For example, you determine the value for Encroachment Base Distance 'F' to be 106 metres. From Table 5, you have determined that the *livestock facility* uses a storage facility with an odour potential that is considered medium (M1).

Table 6 provides a value for Storage Separation Distance 'S' for an M1 Storage for an Encroachment Base Distance 'F' of 100 metres and for an Encroachment Base Distance 'F' of 110 metres, but not for an Encroachment Base Distance 'F' of 106 metres. The value of Storage Separation Distance 'S' for an M1 Storage with an Encroachment Base Distance 'F' of 100 metres, is 190 metres. The value of Storage Separation Distance 'S' for an M1 Storage with an Encroachment Base Distance 'F' of 110 metres, is 199 metres. To determine the value of Storage Separation Distance 'S' for an M1 Storage, with an Encroachment Base Distance 'F' of 106 metres interpolate between the numbers 190 and 199. In this example, the value of Storage Separation Distance 'S' for an M1 Storage, with an Encroachment Base Distance 'F' of 106 metres is 195.4 metres. This value should be rounded to the nearest whole number, in this case 195 metres.

When interpolating a value for Storage Separation Distance 'S' do not include any decimal places. Interpolated values with decimal places should be rounded accordingly. For example, if an interpolated value for Storage Separation Distance 'S' is calculated as 202.83 metres, then use a value of 203 metres for Storage Separation Distance 'S'.

In all instances, where Encroachment or Building Base Distance 'F' exceeds 1000 metres, then Storage Separation Distance 'S' will be the same value as 'F'.








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Table 6: MDS I/II Separation Distances for Permanent Manure





Building Base Distance (m) for MDS II ('F'), or Encroachment Base Distance for MDS I ('F')	Storage Separation Distances Based on Relative Odour Potential - Storage Base Distance, 'S' (m)			
	Very Low Odour Storages V1 to V7	Low Odour Storages L1 to L2	Medium Odour Storages M1 to M2	High Odour Storages H1
40	40	64	136	232
50	50	74	145	240
60	60	84	154	248
70	70	93	163	256
80	80	103	172	264
90	90	113	181	272
100	100	123	190	280
110	110	132	199	288
120	120	142	208	296
130	130	152	217	304
140	140	162	226	312
150	150	171	235	320
160	160	181	244	328
170	170	191	253	336
180	180	201	262	344
190	190	210	271	352
200	200	220	280	360
210	210	230	289	368
220	220	240	298	376
230	230	249	307	384
240	240	259	316	392
250	250	269	325	400
260	260	279	334	408
270	270	288	343	416
280	280	298	352	424
290	290	308	361	432
300	300	318	370	440
310	310	327	379	448
320	320	337	388	456
330	330	347	397	464
340	340	357	406	472
350	350	366	415	480
360	360	376	424	488
370	370	386	433	496
380	380	396	442	504
390	390	405	451	512
400	400	415	460	520
420	420	435	478	536
440	440	454	496	552
460	460	474	514	568
480	480	493	532	584
500	500	513	550	600
600	600	610	640	680
800	800	805	820	840
1000	1000	1000	1000	1000
Greater than 1000 m	Storage Base Distance, 'S', should be the same as Building Base Distance or Encroachment Base Distance - 'F'			

APPENDIX A

MANURE OR MATERIAL STORAGE TYPES

Type	Description	Image
V1	Solid, inside, bedded pack (manure accumulates under <i>livestock</i> over time)	
V2	Solid, outside, covered (cover keeps off precipitation to prevent runoff)	
V3	Solid, outside, no cover, greater than or equal 30% dry matter (manure is dry enough that a flowpath option can be used for runoff control (<i>Nutrient Management Act, 2002</i>))	
V4	Solid, outside, no cover, 18% to less than 30% dry matter, with covered liquid runoff storage (manure not dry enough to soak up precipitation, so a liquid runoff storage needed, but it has a permanent, tight cover)	
V5	Liquid, inside, underneath slatted floor (manure is stored under the animals in the barn)	
V6	Liquid, outside, with a permanent, tight fitting cover (negative pressure tarp, concrete lid, inflatable dome, etc.)	
V7	Liquid, (digestate), outside, no cover (all manure has been treated through anaerobic digestion, or a similar process that reduces odours)	

**SCHEDULE 'C' - MINIMUM DISTANCE SEPERATION FORMULEA
MDS II**

Type	Description	Image
L1	Solid, outside, no cover, 18% to less than 30% dry matter, with uncovered liquid runoff storage (manure not dry enough to soak up precipitation, so a liquid runoff storage needed, but it is uncovered, producing more odour than in V4 above)	
L2	Liquid, outside, with a permanent floating cover (tarps, foam panels, etc.)	
M1	Liquid, outside, no cover, straight-walled storage (usually circular or rectangular concrete, or steel storages)	
M2	Liquid, outside, roof, but with open sides (roof keeps off precipitation, but the open sides allow wind to travel over the manure and carry odours)	
H1	Liquid, outside, no cover, sloped-sided storage (earthen <i>manure storages</i> , but <u>not</u> earthen runoff storages associated with a solid manure storage which are L1 above)	