

APPENDICES

**ANNEX 3 – SEWAGE VOLUME AND QUALITY WORKSHEET (INFORMATIVE)**

Step 1) Collect the following information

- Number of bedrooms
- Presence of garburator
- Home-based businesses
- Other non-residential waste producers
- Number and size of large capacity fill and drain tubs
- Water treatment devices
- Other high volume fixtures

Step 2) Confirm that the following wastes are excluded from the soil treatment field.

- Storm water
- Surface water
- Abattoir waste
- Sub-surface seepage water
- Clearwater waste
- Commercial or industrial process wastes
- Iron filter backwash

from 8.1.1.7

Step 3) Determine the unadjusted Peak Daily Flow (PDF) and Average Daily Flow (ADF)

Number of Bedrooms  <input style="width: 100px; height: 20px;" type="text"/> number	X	Number of People Per Bedroom  <input style="width: 100px; height: 20px;" type="text"/> people from 8.1.2.4	=	Maximum Occupancy  <input style="width: 100px; height: 20px;" type="text"/> people
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Maximum Occupancy  <input style="width: 100px; height: 20px;" type="text"/> people	X	75 imp. gal/ppl/day from 8.1.2.2	=	Unadjusted Peak Daily Flow (PDF)  <input style="width: 100px; height: 20px;" type="text"/> imp. gal./day
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Maximum Occupancy  <input style="width: 100px; height: 20px;" type="text"/> people	X	50 imp. gal/ppl/day from 8.1.2.3	=	Unadjusted Average Daily Flow (U-ADF)  <input style="width: 100px; height: 20px;" type="text"/> imp. gal./day
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Step 4) Adjust the base PDF and ADF

a) Add additional peak flows

from 8.1.2.5

Unadjusted Peak Daily Flow (U-PDF)  imp. gal./day

+

Garburator peak flow  imp. gal./day

+

Home-based business additional peak flow  imp. gal./day

+

Other non-residential waste producers peak flow  imp. gal./day

+

Large capacity fill and drain tubs peak flow  imp. gal./day

+

Water treatment devices peak flow  imp. gal./day

+

Other high volume fixtures peak flow  imp. gal./day

=

Peak Daily Flow (PDF)  imp. gal./day

b) Add additional average flows

from 8.1.2.6

Unadjusted Average Daily Flow (U-ADF)  imp. gal./day

+

Garburator average flow  imp. gal./day

+

Home-based business additional average flow  imp. gal./day

+

Other non-residential waste producers average flow  imp. gal./day

+

Large capacity fill and drain tubs average flow  imp. gal./day

+

Water treatment devices average flow  imp. gal./day

+

Other high volume fixtures average flow  imp. gal./day

=

Average Daily Flow (ADF)  imp. gal./day

Step 5) Select Sewage Quality (select one of three)

from 8.1.1

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Options	Raw - 80% of the time does not exceed (assumed)			Primary Effluent - 80% of the time does not exceed (assumed)		
	BOD5 (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)	BOD5 (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)
residential waste (no garburator)	220	220	50	150	100	15
residential waste (with garburator)	286	286	65	195	130	19.5
other (enter data)				0		

32%  
removal

55%  
removal

70% removal

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**ANNEX 4 – SEPTIC TANK WORKING CAPACITY WORKSHEET (INFORMATIVE)**

Step 1) Collect the following information

- Peak Daily Flow
- Maximum Occupancy

Step 2) Calculate unadjusted sludge and scum storage volume in the working chamber

Maximum Occupancy		88	=	Unadjusted S&S Storage Volume
	X			
people from 8.1.2.4		imp. gallons from 12.6.2.3		imp. gallons

Step 3) Adjust sludge and scum volume in the working chamber

Unadjusted S&S Storage Volume		Adjustment Factor	=	S&S Storage Volume
	X			
imp. gallons		Enter - 1.5 where a garburator is present, or - 1.0 in all other cases from 12.6.2.3		imp. gallons

Step 4) Calculate the hydraulic capacity based on 24 hours of retention at peak flow

PDF		1	=	Hydraulic Capacity Volume
	X			
imp. gallons per day		day from 12.6.2.1		imp. gallons

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Step 5) Calculate the minimum hydraulic capacity plus sludge and scum storage volume

Hydraulic Capacity Volume		S&S Storage Volume		Calculated Minimum Working Capacity
<input type="text"/>	+	<input type="text"/>	=	<input type="text"/>
imp. gallons		imp. gallons		imp. gallons

Step 6) Compare Calculated Minimum Working Capacity to Table 11-1 and select maximum

Calculated Minimum Working Capacity		Septic Tank Minimum Working Capacity		Working Capacity Required
<input type="text"/>	OR	<input type="text"/>		<input type="text"/>
imp. gallons		imp. gallons		imp. gallons
		from table 12-1 in 12.6.2		Select larger number