Sanitation system classification tool



Interactive tool for selecting appropriate sanitation systems from the SFD Selection Grid

Sanitation system classification tool

The purpose of this classification tool is to help SFD producers select the most appropriate sanitation systems from the SFD Selection Grid.

By answering a series of questions on the types of sanitation technologies (toilets, sewers, septic tanks, pits, open drains etc) in use in their city and how they function, the tool will help identify which sanitation system to select from the selection grid.



Are toilets available and used or is open defecation practiced?

In order to correctly classify any sanitation system, the first question that needs to be answered concerns the availability of some form of toilet or latrine. If there are no facilities available or if the available facilities are not used, then open defecation could be practiced for example, where people defecate in fields, forests, bushes, bodies of water or other open spaces or use practices such as flying toilets. Please choose from the options below:



There are no toilets or latrines available, so open defecation is being practiced. By identifying where this practice is taking place, the correct cell(s) from the SFD selection grid should be selected from those highlighted below.



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Now select the sanitation systems in use in your city or urban area Use the cursor to hover-over the selection grid and then click on the selected systems.



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Is the toilet or latrine failed, damaged, collapsed or flooded?

If the toilet or latrine has become damaged, collapsed or failed in such a way that excreta is not contained, it could present a significant public health risk. Similarly, if the toilet has become flooded, excreta will not be contained and could present a significant public health risk, regardless of whether the toilet is still in use or not. Please choose from the options below:



If the toilet or latrine has either failed, been damaged, collapsed or become flooded, this option should be selected from the SFD selection grid. The correct cell to choose from the SFD selection grid should be based upon what the outlet from the containment technology is connected to (e.g. to a sewer, soakpit, open drain, storm sewer, water body open ground or an unknown destination) if an outlet is present, as shown below. If no outlet or overflow exists the right hand cell of the row should be selected.

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Use the cursor to hover	-over the se	lection grid	and then cl	ick on the s	elected sy	ems.	R	SK OF GROUN	DWATER POLI						
List A: Where does the toilet discharge to? (i.e. what type of containment technology, if any?)	List B /hat is the co ainment tech logy connect to? (i.e. whe does the outle or overflow di harge to, if an hing?)														
	to centralised combined sewer	to cent vilsed foul/separate sewer	decentralised combined sewer	decentralised foul/separate sewer	to soakpit	to open drain or storm sewer	to water body	to open ground	to 'don't know where'	no outlet or overflow					
No onsite container. Tollet discharges directly to destination given in List B					Significant risk of GW pollution Low risk of GW pollution					Not					
Septic tank					Significant risk of GW pollution Low risk of GW pollution					Applicable					
Fully lined tank (sealed)					Significant risk of GW pollution Low risk of GW pollution										
Lined tank with impermeable walls and open bottom	Significant risk of GW pollution Low risk of GW pollution	Significant risk of GW pollution Low risk of GW pollution	Significant risk of GW pollution Low risk of GW pollution	Significant risk of GW pollution Low risk of GW pollution	Significant risk of GW polition Low risk of GW polition					Significant risk of GW pollution Low risk of G pollution					
Lined pit with semi-permeable walls and open bottom										Significant risk of GW pollution Low risk of G pollution					
Unlined pit	Not Applicable									risk of GW pollution Low risk of G pollution					
Pit (all types), never emptied but abandoned when full and covered with soll										Significant risk of GW pollution Low risk of G pollution					
Pit (all types), never emptied, abandoned when full but NOT adequately covered with soll															
Tollet falled, damaged, collapsed or flooded															
Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded															
No tollet. Open defecation	Not Applicable									Not Applicable					

Does the toilet or latrine discharge to an onsite container?

The toilet or latrine may discharge to an onsite container, such as a septic tank, a fully lined and sealed tank, a lined tank with impermeable walls and an open bottom, or some form of pit. Alternatively, the toilet may discharge directly to a sewer, soakpit, open drain, storm sewer, water body, open ground or even an unknown location. Please choose from the options below:



The sanitation system identified is a fully functioning toilet discharging directly to a destination in List B of the SFD selection grid. The appropriate cell should be selected from the SFD selection grid as shown below. The correct cell to choose from the SFD selection grid should be based upon what the toilet is connected to (e.g. to a sewer, soakpit, open drain, storm sewer, water body, open ground or an unknown destination). If the toilet is connected to a soakpit, you will also need to estimate the risk of groundwater pollution.



Is the onsite container failed, damaged, collapsed or flooded?

If the onsite container has become damaged, collapsed or failed in such a way that excreta is not contained, it could present a significant public health risk. Similarly, if the onsite container has become flooded, excreta will not be contained and could present a significant public health risk, regardless of whether the toilet is still in use or not. Please choose from the options below:



If the tank or pit has either failed, been damaged, collapsed or become flooded, this option should be selected from the SFD selection grid. The correct cell to choose from the SFD selection grid should be based upon what the outlet or overflow from the tank or pit is connected to (e.g. to a sewer, soakpit, open drain, storm sewer, water body open ground or an unknown destination) if an outlet is present, as shown below. If no outlet or overflow exists the right hand cell of the row should be selected.



Determining which type of tank or pit to select (

The terms used to describe the different types of tanks and pits found in sanitation systems are often used interchangeably. For the purposes of creating an SFD, it is important that these are classified accurately. The first question that needs to be considered is whether the onsite container is fully sealed or fully lined and therefore not leaching or leaking into the surrounding sub-soil. These types of systems include fully lined tanks and septic tanks. Any type of containment that has permeable walls, or an open bottom is not fully sealed and can therefore potentially allow its contents to leak or leach into the surrounding sub-soil. Please choose from the options below:

Permeable or semipermeable

Permeable or semi-permeable containment technologies include any type of containment with an open bottom, semi-permeable lining, or even unlined. These can include all types of pit latrines or unsealed tanks. Beware of local terminology as sometimes containers that are not sealed are incorrectly referred to as septic tanks or lined tanks.

<image>

Fully sealed

Impermeable containment includes technologies such as septic tanks, fully lined tanks or fully sealed tanks. These technologies may have an outlet or overflow that discharges to a sewer, soakpit, open drain, storm sewer, water body, open ground or to an unknown destination.



Does the tank have an outlet or overflow?

Fully sealed tanks may or may not have an outlet or overflow. If fitted, the outlet or overflow may discharge to a sewer, soakpit, open drain, storm sewer, water body, open ground or to an unknown destination. Please choose from the options below:



The sanitation system identified is a fully lined tank (sealed) with no outlet of overflow. This can be selected from the SFD selection grid as shown below.

Now select the sanitation systems in use in your city or urban area

Use the cursor to hover-over the selection grid and then click on the selected systems.

List A: Where does the toilet discharge to? (i.e. what type of containment technology, if any?)	List B: What is the containment technology connected to? (i.e. where does the outlet or overflow discharge to, if anything?)										
	to centralised combined sewer	to centralised foul/separate sewer	to decentralised combined sewer	to decentralised foul/separate sewer	to soakpit	to open drain or storm sewer	to water body	to open ground	to 'don't know where'	no outlet or overflow	
No onsite container. Tollet discharges directly to destination given in List B					Significant risk of GW pollution Low risk of GW pollution					Not	
Septic tank					naprimitari nak si GNI Lani tisk si GNI pollutori					Applicable	
Fully lined tank (sealed)					Experiment only, of GW pathology score mA for GW pollution						
Lined tank with Impermeable walls and open bottom	risk of CHV		And Call	nia si GN	risk of DW				1	and GN	
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Lined pit with semi-permeable walls and open bottom										Low risk of GW	
Unilned pit										con di GN col Ros Con risk of GW	
Pit (all types), never emptied but abandoned when full and covered with soll	Not Applicable									significant risk of GW pollution Edw.mikraf GW pollution	
Pit (all types), never emptied, abandoned when full but NOT adequately covered with soll											
Tollet falled, damaged, collapsed or flooded											
Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded											
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Is the tank a 'septic tank' or just fully lined tank?

There is often confusion as to what constitutes a septic tank compared to a simple fully lined and sealed tank. A septic tank always has an outlet, whereas a simple sealed tank may or may not. However, a correctly functioning septic tank should also have a minimum of two separate chamber separated by baffle walls, with inlet and outlet 'T'-shaped pipes to prevent scum and solids escaping with the effluent. These features allow increased settlement to occur and to enable a moderate amount of treatment to take place through anaerobic processes, which reduces the quantity of solids and organics present in the effluent. A septic tank will also be fitted with access covers to enable all the chambers to be periodically emptied. Septic tanks should be sized appropriately, and to a sufficient depth to allow for sufficient retention time; due to their multiple chambered nature, septic tanks are generally rectangular on plan. Fully lined tanks are far less complex, consisting primarily of a simple sealed container with an pipe inlet and possibly an outlet pipe. Therefore, the levels of settlement and treatment reached in a simple lined tank are lower than that achieved through the use of a conventional septic tank. Please choose from the options below:



The sanitation system identified is a correctly designed, properly constructed and well maintained fully lined tank (sealed), with impermeable walls and base. This includes poorly designed and/or constructed and/or maintained septic tanks that, because of these faults or deficiencies, are not performing as septic tanks, but instead are acting as sealed vaults. The correct cell to choose from the SFD selection grid should be based upon what the outlet or overflow from the sealed tank is connected to (e.g. to a sewer, soakpit, open drain, storm sewer, water body open ground or an unknown destination, as shown below. If the sealed tank is connected to a soakpit, you will also need to estimate the risk of groundwater pollution.



The sanitation system identified is a correctly designed and constructed septic tank. The correct cell to choose from the SFD selection grid should be based upon what the outlet or overflow from the septic tank is connected to (e.g. to a sewer, soakpit, open drain, storm sewer, water body open ground or an unknown destination, as shown below. If the septic tank is connected to a soakpit, you will also need to estimate the risk of groundwater pollution.



Does the tank or pit have an outlet or overflow?

Some tanks or pits which are not fully sealed may have an outlet or overflow, such as lined tanks with impermeable walls and an open bottom. The outlet or overflow may discharge to a sewer, soakpit, open drain, storm sewer, water body, open ground or to an unknown destination. Please choose from the options below:



The sanitation system identified is a lined tank with impermeable walls, an open bottom and with an outlet of overflow. This can be selected from the SFD selection grid as shown below. The correct cell to choose from the SFD selection grid should be based upon what the outlet or overflow from the tank is connected to (e.g. to a sewer, soakpit, open drain, storm sewer, water body open ground or an unknown destination). If the tank is connected to a soakpit, a combined sewer or a foul/separate sewer, you will also need to estimate the risk of groundwater pollution.



Does the pit or tank get abandoned when full?

Some types of pit (and occasionally tanks) are abandoned once full. Others are emptied as they become full, although the length of time it takes for different types and sizes of pits and tanks to fill varies greatly. Please choose from the options below:



The sanitation system identified is either a lined tank with impermeable walls and an open bottom, a lined pit with semi-permeable walls and an open bottom or an unlined pit. There is no effluent outlet present. The correct cell should be chosen from the SFD selection grid, as shown below. Note that you will also need to estimate the risk of groundwater pollution.



Does the pit get covered after abandonment?

Following abandonment, pits should be adequately covered with soil to reduce the risk of humans coming into contact with excreta. Please choose from the options below:



The sanitation system identified is a pit (any type), which is never emptied but abandoned when full and covered with soil, with no outlet or overflow. This can be selected from the SFD selection grid as shown below. Note that you will also need to estimate the risk of groundwater pollution.



Now select the sanitation systems in use in your city or urban area

Use the cursor to hover-over the selection grid and then click on the selected systems.

The sanitation system identified is a pit (any type), which is never emptied, abandoned when full but **NOT** adequately covered with soil, and with no outlet or overflow. This can be selected from the SFD selection grid as shown below.



Now select the sanitation systems in use in your city or urban area

Use the cursor to hover-over the selection grid and then click on the selected systems.

List A: Where does List B: What is the containment technology connected to? (i.e. where does the outlet or overflow discharge to, if anything?) the toilet discharge to? (i.e. what type of to containment to centralised to centralised decentralised to open drain or to 'don't know no outlet or technology, if foul/separate decentralised to soakpit to water body to open ground combined sewer foul/separate storm sewer overflow where' sewer combined sewer any?) sewer No onsite container. Tollet discharges directly to destination given in List B Not Applicable Septic tank Fully lined tank (sealed) Lined tank with impermeable walls and open bottom Lined pit with semi-permeable walls and open bottom Unlined plt Not Applicable Pit (all types), never emptied but sbandoned when full and covered with soll Pit (all types), never emptied, bandoned when full but NOT adequately covered with soll Tollet falled, damaged, collapsed or flooded Containment (septic tank or tank or pit latrine) failed, damaged, collapsed or flooded Not Not Applicable No tollet. Open defecation Applicable

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Thank you!

Please visit www.sfd.susana.org

SFD Promotion Initiative

